Dearest Mr. Scott Pruitt,

Thinking of you

today with deep and sincere

Sympathy.

We've just learned about your ties to the fossil fuel firms and wanted to pass along our condolences for our shared environmental loss. We will continue to organize to protect our land and natural resources from corporate interest and won't stop until you compromise. You've won the DAPL battle but you haven't won the war. ♥ ♥ ♥

A Prayer In Sympathy

Illustration by

Liz Schreiner

Memorial Sloan-Kettering Cancer Center is the world's oldest and largest institution devoted to prevention, patient care, research, and education in cancer. For over 120 years, Memorial Sloan-Kettering Cancer Center has offered the best possible care for patients with cancer and has sought strategies to prevent, control and ultimately cure cancer in the future. Our continuing record of success in the laboratory and at the bedside attests to our position as one of the nation's premier cancer centers.

Visit our web site at www.mskcc.org

RECYCLABLE

MADE IN THE USA
C121-MSK-07

Tue Mar 07 22:23:38 EST 2017
Hope.Brian@epamail.epa.gov
FW: EPA Transition
To: CMS.OEX@epamail.epa.gov

From: Richard Kinch [mailto: (b) (6)
Sent: Monday, March 06, 2017 11:07 AM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Cc: Schnare, David <schnare.david@epa.gov>
Subject: RE: EPA Transition

Dear Administrator Pruitt,

Having previously been a 40 year EPA employee, that now provides independent environmental consulting, I congratulate you on your confirmation as EPA Administrator. Over the years, I have learned many things about EPA, and believe all ex and current EPA employees should try to help you be successful. In that vein, I will pass on what I believe is the single best thing you can do.

During my career at EPA, I recall asking one question that is the key to a more effective Agency. I was working on the development of regulations associated with the management of roughly 150 million tons/year of coal ash generated by coal fired utilities. The discourse became very adversarial between all the stakeholders, including citizen groups that strongly demanded EPA regulatory action. At one point, I asked the lead citizens group a simple question: “In the last 10 years can they identify for me any coal ash management permits where citizen concerns were not adequately addressed through the State permitting process?” The answer was “No”. While I found this exchange to be very enlightening, regrettably it was not viewed as meaningful by senior EPA officials.

State environmental programs are a tremendous asset. The EPA culture needs to reflect how we can more effectively work with State programs. I will briefly highlight several potential actions:

- Citizen groups should be pushed to have dialogues with State program representative, and not view EPA as the entity that solves all environmental problems. This can be accomplished by challenging citizens (and in some cases industry officials), about their engagement of State program.

- In a regulatory setting, EPA needs to resist inappropriately denigrating State programs to help justify EPA action. As an example, for the coal ash rule EPA made a point that a significant portion of the states do not require liners for coal ash disposal units to protect groundwater. Internally, I made the point that in the last 20 years all new units were built with liners, and that a state program may have an alternative provision that requires protection of human health and the environment – thus, liners may be installed to meet that requirement. EPA chose not to provide that perspective – and while that helped justify EPA action, it did damage to the reputation of state programs. As another example, after the collapse of the Kingston coal ash dam, there was major clamor by citizens and the media for EPA to develop regulations, which we did. An honest perspective, however, would reveal that the citizens and press were mistaken in their faith that EPA was “THE ANSWER”. EPA had no dam safety expertise and still does not. About 10 other Federal Agencies have such expertise, and all but one State has a dam safety program and associated expertise.

- One of the most effective uses of EPA funds involves grants to associations of State environmental regulators. Supporting coordination between States is very meaningful, and it provides EPA with a better understanding of aspects that are currently addressed by States, and whether additional controls are best handled through State programs or necessitate Federal regulation. Regrettably, during my last few years in EPA’s Office of Land and Emergency Management, such funding was discontinued.

- In EPA’s Office of Land and Emergency Management, I was involved in a program that received little to no support within EPA, but is a great model for effective engagement. EPA fostered the formation of the State Review of Oil and Natural Gas Environmental Regulations (STRONGER), a 501(c)(3) nonprofit. The Board of Directors is comprised of equal representation from the oil and gas industry, state oil and gas environmental regulatory agencies, and the environmental public advocacy community. EPA is prohibited from being a member, but does participate as an observer/advisor. STRONGER’s mission is to enhance protection of human health and the environment by educating and providing services for the continuous improvement of state oil and gas environmental regulatory programs. I expect this group will ask to meet with you. Please accept that request. This is an exceptional, but neglected structure, and could be a model for advancing a cooperative environmental dialogue.

- There is room for significant improvement between EPA and States. Do not just casually express support for better ties or totally leave it to each program office. Have someone lead the effort to make EPA’s relations with State programs a priority and enhance how various parties can more effectively engage.

In this brief email, I wanted to convey how important it is to enhance the relationship between EPA and State environmental programs. This relationship is the fundamental underpinning to a massive collection of decisions that you will make during your tenure. In addition, it can be the key to a more appropriately structured and cooperative dialogue between all parties.

Best wishes for your success at EPA.

Richard Kinch

(b) (6)

2/17

Dear Mr. Pruitt,

You do not know me, but I first ran into you in Tulsa in the late '90s when I helped start a Tulsa Chapter of the Christian Legal Society and you were practicing law with political aspirations. I remember you were on our list, and over the last 20 years, I have watched God strategically place you in positions for the furtherance of His Purpose. And, while you were AG, one of our good friends, Tim Downing, was under your helm. Now, we offer you our congratulations, and most importantly, our prayers, as you embark on a new leg of your journey as EPA Chief. May God bless you and keep you and make His Face shine upon you. Every night we pray with our four boys for our leaders, and we have added you by name.

May God Be With You,
The Kerr's of Thunder Valley

Kiwe, Elizabeth, (b) (6) [redacted]

teacher's aide at Perry Upper Elementary School.

Water in the desert

Water was a key topic during the Oklahoma Religions United group's visit to Israel and the Palestinian Territories.

Page 1D

Building on a legacy

Two proteges of Jack Hartman meet in Bedlam, and the old coach would be proud that the roots of Henry Iba remain strong.

Page 1B

THE OKLAHOMAN

Saturday, February 18, 2017 | REACHING MORE THAN 475,000 PEOPLE EACH DAY | NEWSOK.COM | OKLAHOMAN.COM

75¢

Pruitt OK'd as EPA chief over environmentalists' objections

BY MICHAEL BIESECKER
The Associated Press

WASHINGTON – Over the strong objections of environmental groups, the Senate confirmed Scott Pruitt to lead the Environmental Protection Agency on Friday, giving President Donald Trump an eager partner to fulfill his campaign pledge to increase the use of fossil fuels.

In six years as Oklahoma's attorney general, Pruitt filed 14 lawsuits challenging EPA regulations that included limits on carbon emissions from coal-fired power plants. He also sued over the EPA's recent expansion of water bodies regulated under the Clean Water Act, a federal measure opposed by industries that would be forced to clean up polluted wastewater.

Pruitt's supporters cheered his confirmation, hailing the 48-year-old Republican lawyer as the ideal pick to roll back environmental regulations they say are a drag on the nation's economy.

"EPA has made life hard for families all across America," said Sen. John Barrasso, R-Wyo., chairman of the Senate Environment and Public Works Committee. "The agency has issued punishing regulations that caused many hard-working Americans to lose their jobs. Mr. Pruitt will bring much needed change."

The vote was 52-46 as Republican leaders used their party's narrow Senate majority to push Pruitt's confirmation despite calls from top Democrats to delay the vote until requested emails are released next week.

SEE PRUITT, 2A

MORE ONLINE

To see a video about Scott Pruitt, go to Oklahoman.com.

Reservists return to Tinker after deployment to Turkey

Police say more girls come forward in Perry

BY TIM WILLERT
Staff Writer
twillert@oklahoman.com

PERRY – A police investigator said Friday he expects the number of victims to climb as he continues to look into molestation accusations against a former volunteer

(b) (6)

OKLAHOMA CITY OK 730

27 FEB 2017 PM 5 L

USA FOREVER

MAR 08 2017

FCL 20364330

2017 MAR -8 12:10

EXECUTIVE SECRETARIAT

Mr. Scott Pruitt
Office of the Administrator
Rm. 1101A
Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, DC 20460

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

MAR 2 9 2017

REPLY TO THE ATTENTION OF:
WG-15J

Mr. Ethan Fuentes
1162 Foster Avenue
Nashville, Tennessee 37210

Dear Mr. Fuentes:

Thank you for your February 27, 2017 letter to U.S Environmental Protection Agency (EPA) Administrator Scott Pruitt congratulating him on his new position and also concerning the drinking water situation in Flint, Michigan. EPA Headquarters has forwarded your letter to EPA Region 5 for response.

I am always happy to hear from citizens who care about the environment, and I appreciate your letter expressing concern about the water crisis in Flint, Michigan. You state in your letter that you believe it is of the utmost importance to help the citizen's in Flint with their water situation and I agree.

The EPA has been actively working with the State of Michigan and the City of Flint to continue to improve the drinking water quality and to protect public health. Since October 2015, EPA's Flint Drinking Water Technical Support Team, which is composed of many of the Agency's experts, has provided technical assistance to the city and to the Michigan Department of Environmental Quality (MDEQ) on steps needed to reduce lead from pipes getting into drinking water and to ensure proper lead testing.

On January 21, 2016, the EPA issued an emergency order to the City and MDEQ to make sure that appropriate actions were being taken and that the City was operating its drinking water system in compliance with the requirements of the law to protect public health. On November 18, 2016, the EPA amended its emergency order to require the City to complete certain steps before switching to a new water source: 1) successfully complete and operate a new pipeline for at least three months before distribution of any drinking water; 2) modify its plant to treat water from a new source; and 3) demonstrate compliance with federal requirements for pipe corrosion control and water quality monitoring.

The EPA is also an integral part of the federal response effort and has established a significant presence in Flint, which includes response personnel, scientists, water quality experts, and community involvement coordinators. In addition to providing technical assistance through the Flint Drinking Water Technical Support Team, the EPA is conducting a multi-pronged effort to collect and analyze drinking water samples taken from around the city to assess the status of Flint's system.

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (100% Post-Consumer)

Recently, EPA has also awarded a $100 million grant to MDEQ to fund drinking water infrastructure upgrades in Flint. The funding, provided by the Water Infrastructure Improvements for the Nation (WIIN) Act of 2016, enables Flint to accelerate and expand its work to replace lead service lines and make other critical infrastructure improvements.

I encourage you to visit www.epa.gov/flint for a copy of the amended order, the technical support team's recommendations, the results of EPA's sampling efforts, and advice to Flint residents about filtered water.

Again, thank you for your letter and your concern about the quality of our environment.

Sincerely,

for Thomas Poy

Christopher Korleski
Director, Water Division

RECE
2017 MAR -8 PM 12: 09
OFFICE OF
EXECUTIVE SEC

Ethan Fuentes

1162 Foster Ave, Nashville

TN, 37210

27 February 2017

Scott Pruitt

William Jefferson Clinton Building

1200 Pennsylvania Avenue, N. W.

Dear Scott Pruitt,

I wanted to congratulate you for gaining the position as head of the EPA. Now, there was one matter that I want to have more attention regarding Flint, Michigan. I believe that it is of the utmost importance to help them with their water situation. It is wrong to leave them to live in an area where the water is contaminated. I have heard that they tried to receive help and came up with ways to cope, but to this day they seem to make no progress. The EPA and other organization should step in to help the people of Flint gain drinkable and poison-free water.

Sincerely,
Ethan Fuentes

E. Scott Pruitt
Administrator

May 23, 2017

Trinity Baptist Church
830 West Ozark Street
P.O. Box 140
Morris, Oklahoma 74445

Dear Friends:

It is such a blessing to know that you have prayed for me and everyone here at the U.S. Environmental Protection Agency. I am grateful for your support, and I am honored to lead the EPA as we work to protect God's creation and act as His stewards.

I am a firm believer in the EPA's mission to protect human health and the environment and look forward to the opportunity to help provide future generations with a better and healthier environment. I hope you will follow our efforts by visiting www.epa.gov to learn more about the EPA's work and what you can do to help us achieve results for the American people.

Again, my thanks for your prayers and support.

Respectfully yours,

E. Scott Pruitt

1200 Pennsylvania Ave. NW • Mail Code 1101A • Washington, DC 20460 • (202) 564-4700 • Fax: (202) 501-1450

This paper is printed with vegetable-oil-based inks and is 100-percent postconsumer recycled material, chlorine-free-processed and recyclable.

PRAYERGRAM Date March 1, 2017

Scott Pruitt, Admin of EPA

We want you to know that you are being remembered in prayer today. The Trinity Baptist Church family is praying for you. Please call upon us if there is anything that we can do to help you. We will continue to remember you in prayer.

Your friends in Christ,

Thank you for your service to our state. We pray you will look to God for guidance in all you do.
Ward & Connie Mates

"For by Him all things were created ... through Him and for Him."
Colossians 1:16
Dr. Tom and Joni Thomas

God bless you as you face the challenges of all the changes to EPA regulations that are needed. Mac + Linda McCleary

Mike & Jane Hurt

Thank you for serving our country. You have Christians behind you in prayer. God bless you! Linda Vaughn

May God Bless & Guide You,
David & Debra Sermons

God Bless you
Sheila

prayers for you,
Leslie Baydals

May God lead you down the right Path, as you serve.
Louise Hess

"Be anxious for nothing, but in everything by prayer and supplication, with thanksgiving, let your requests be made known to God"
Philippians 4:6 (NKJV)

Trinity Baptist Church
"Loving God, Loving Others"
830 W. Ozark St. • P. O. Box 140
Morris, OK 74445
918 733-2746 Web: TBCMorris.org

Weekly Meeting Times

Sunday

Bible Study	9:45 a.m.
Morning Worship	11:00 a.m.
Evening Worship	6:00 p.m.

Wednesday

Family Fellowship Meal	6:00 p.m.
TrinityKIDS/Youth Group	6:30 p.m
Prayer Meeting	7:00 p.m.

Trinity Baptist Church
"Loving God, Loving Others"
830 W. Ozark St.
P.O. Box 140
Morris, OK 74445

MAR 09 2017

FCL 20364684

Scott Pruitt
Amin. of EPA
1200 Pennsylvania Ave NW
Washington, DC 20004

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

OFFICE OF THE
REGIONAL
ADMINISTRATOR

MAR 29 2017

Justin McDavid
[redacted]

Dear Mr. McDavid:

Thank you for your February 24, 2017, email regarding the proposed Pebble Mine in Bristol Bay, Alaska. We appreciate your interest in this important issue. The Administrator asked me to respond to your letter on his behalf.

Consistent with the sentiment in your email, the EPA's role has been, and continues to be, helping to ensure that projects such as the proposed Pebble Mine include appropriate protections of human health and the environment. Next steps for the project remain under discussion.

Again, thank you for your letter. If you have further questions, please contact Margo Young of my staff at 206-553-1287.

Sincerely,

for Michelle L. Pirzadeh
Acting Regional Administrator

Date: Fri Mar 10 09:33:15 EST 2017
From: Hope.Brian@epamail.epa.gov
To: CMS.OEX@epamail.epa.gov
Subject: FW: Opposition to Pebble Mine

-----Original Message-----
From: Justin McDavid [mailto: (b) (6)
Sent: Thursday, March 09, 2017 10:11 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: Opposition to Pebble Mine

Dear EPA Administrator Scott Pruitt,

I'm sure you get a lot of form letters, so I'll keep this non-form-one brief.

Until we we have the technology/resources/will to clear up similar mistakes, we should not be making a new one with Pebble Mine.

We still don't know how to handle the Berkeley Pit (in Butte, Montana), long-term, and I'm fairly certain that the foreign-backed "partnership" trying to push Pebble through all the local-Alaskan opposition isn't even bothering to plan for handling Pebble 50, 100, 200 years into the future.

Pebble now would ruin the livelihood of 14,000 fisherman and be an environmental blight for generations. Wait till we have the technology to extract the minerals without making a horrific mess. The lode is not going anywhere.

Sincerely,

Justin McDavid

(b) (6)

PETITION

To: Environmental Protection Agency

Each year, under the EPA's purview, hundreds of thousands of animals are killed to test chemicals. Not only do animals suffer terribly during the testing, but animal tests have well-known scientific flaws — they are slow and expensive, hampering our ability to detect and restrict the most dangerous chemicals. Plus, differences between species mean that the results of animal tests may not be applicable to humans. **I urge you to make 21st Century Toxicity Testing a reality: update your regulations and policies to require non-animal test methods today.**

Sincerely,

Douglas Gray

Douglas Gray
Scottsdale, AZ

(b) (6)

ENRJ International, Ltd.
2015 Azalee Lane Summerville, South Carolina 29483
Phone 843-873-8332 Email dhudson@enrjintl.com

RECEIVED
2017 MAR 13 PM 1:01
OFFICE OF THE
EXECUTIVE SECRETARIAT

March 7, 2017

The Honorable Scott Pruitt
Environmental Protection Agency
1200 Pennsylvania Ave. NW Mail code 6102T
Washington, DC 20460

Subject: **Climate change/Global Warming and Reduced Spending**

Dear Mr. Pruitt,

Congratulations on your appointment to EPA, good luck. ENRJ International has a patented mature system that can help you achieve emission requirements and continue the use of fossil fuel. Our system will increase efficiency in Utility and Industrial boilers burning residual fuel sufficiently to pay for a Stack Scrubber, without any cost to the operator. Our Stack Scrubber addresses CO_2, NOx and SOx. The US could be the leader in emissions abatement. Moreover, its cost effectiveness.

ENRJ's Dual Fuel Homogenization and Heat Recovery System will increase boiler efficiency up to 5% on Utility and Industrial boilers burning residual fuel. Example: Fuel savings on a 215 MW Utility boiler is more than $6,500,000. annually. We have enjoyed more than 30 successful installations.

Our unique patented Dual Fuel Homogenization and Heat Recovery System is singular in design; custom, scalable, mature, 100% automatic, PLC controlled stand alone or it may be connected to the DCS. All system parameters are displayed on a HMI in the control room.

We can also work with Coal burning boilers, reducing emissions to acceptable levels.

We can help in climate change and/or global warming and **Government reduced spending.** This could create many high tech jobs that President Donald J. Trump intends to create.

We have documentation support data for all of the above.

I look forward to an opportunity to explain our system's simplicity and its benefits.

Sincerely,

Dannie B. Hudson
Former Ch. Engr. MSC

WESTERN ENERGY
ALLIANCE

RECEIVED
2017 MAR 13 PM 1:01
OFFICE OF THE
EXECUTIVE SECRETARIAT

March 6, 2017

The Honorable Scott Pruitt
Administrator
U.S. Environmental Protection Agency
Office of the Administrator, 1011A
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Dear Administrator Pruitt:

Thank you very much for your decision to withdraw the Information Collection Request (ICR) for existing oil and natural gas facilities. This relic from the previous administration was excessive in scope, constituted an onerous burden with unreasonable deadlines, and requested information inappropriate for informing EPA about existing facilities. We appreciate your leadership in rescinding this red tape that was burdensome for both EPA and industry.

Western Energy Alliance represents over 300 companies engaged in all aspects of environmentally responsible exploration and production of oil and natural gas in the West. Alliance members are independents; the majority of which are small businesses with an average of fifteen employees.

During the ICR comment period, Western Energy Alliance identified numerous problems with EPA's request. In the majority of instances, our substantive criticisms went largely ignored. The ICR finalized on November 15th was rushed in place in the waning days of the previous administration in an inappropriate manner, and was ripe for correction under your leadership.

We look forward to working with you as you begin the process of reorienting the agency to work with rather than against states as they protect the environment while enabling job and economic growth. We stand ready to assist you in any way we can.

Sincerely,

Kathleen M. Sgamma
President

1775 Sherman St., Ste 2700 Denver, CO 80203
P 303.623.0987 F 303.893.0709 W WesternEnergyAlliance.org

March 5th, 2017

Dear Ms. McCarthy,

The EPA has repeatedly shut down it's own fracking-related water contamination investigations after being pressured by the oil and gas industries.

Growing up in California, I have had first hand experience with limited access to water. Where, in this case, it was out of the hands of anyone due to drought, it is not out of anyone's hands in this case.

Please consider the fact that access to clean water is a basic human right. The pollution to the water in Dimock, PA; Pavillion, WY; and Weatherford, TX should be responsibly dealt with. Please reopen these cases, please fight for the American people, and please keep water safe for our children, and their children.

Sincerely,
Sabra Zakrzewski
(b) (6)
[redacted]

RECEIVED
2017 MAR 13 PM 1:00
OFFICE OF THE
EXECUTIVE SECRETARIAT

Kansas Independent Oil & Gas Association
800 SW Jackson Street – Suite 1400
Topeka, Kansas 66612-1216
785-232-7772
www.kioga.org

March 3, 2017

RECEIVED
2017 MAR 13 PM 12:59
OFFICE OF THE
EXECUTIVE SECRETARIAT

Mr. Scott Pruitt
Administrator, U.S. Environmental Protection Agency
Office of the Administrator 1101A
1200 Pennsylvania Ave., NW.
Washington, DC 20460

Re: EPA's Withdrawal of Information Collection Request (ICR) for oil and natural gas production operations.

Mr. Pruitt:

On behalf of the 4,200 members of the Kansas Independent Oil & Gas Association (KIOGA), **thank you** for withdrawing the EPA's Information Collection Request (ICR) for oil and natural gas production operations.

We believe the EPA's request to be an unnecessary and onerous burden on oil and gas producers that is more harassment than a genuine search for pertinent and appropriate information. The oil and natural gas industry in Kansas consists primarily of small operators, operating low volume and low pressure wells, most often classified as marginal wells. Many Kansas oil and gas producers involved with this request cannot afford the time and expense of complying with an empty regulatory burden. The information request puts strain on these companies and all for the purpose of supporting an unlawful rule.

Thank you for your leadership! Please do not hesitate to contact me if you have questions or if I can be of assistance.

Sincerely,

Edward P. Cross

Edward P. Cross, President
Kansas Independent Oil & Gas Association

KANSAS INDEPENDENT OIL & GAS ASSOCIATION

KIOGA

Edward P. Cross
PRESIDENT

800 SW Jackson, Suite 1400
Topeka, KS 66612-1216
(785) 232-7772
(785) 232-0917 Fax
(785) 220-3534 Cell
email: (b) (6)

TEXAS Alliance of Energy Producers

RECEIVED
2017 MAR 13 PM 12:57
OFFICE OF THE
EXECUTIVE SECRETARIAT

March 3, 2017

The Honorable Scott Pruitt
Administrator, Environmental Protection Agency
Office of the Administrator 1101A
1200 Pennsylvania Ave. N.W.
Washington, D. C. 20460

Dear Administrator Pruitt:

On behalf of the over 3,000 members of the Texas Alliance of Energy Producers, I want to sincerely thank you for withdrawing EPA's requirement that owners and operators of oil and natural gas facilities must submit a list of equipment and production information to the EPA.

The oil and gas industry has protested the implementation of the methane rule on many occasions to the EPA. Additionally, the survey requirements and instructions were confusing and lacked any stated purpose.

Methane emissions have been declining in the U.S. for many years, and we think they will continue to decline without further federal government intervention. Our members recognize the need to be good stewards of the lands we operate on, but undue regulations place undue burdens on companies and their efforts to help make America energy independent.

Thank you so very much for your leadership, and if I can ever be of assistance to you or the EPA please contact me or the staff of the Texas Alliance of Energy Producers.

All the best,

Robert Osborne

Robert W. Osborne
Chairman of the Board

Austin: 1000 West Avenue, Suite B, Austin, TX 78701 (512) 476-8098 E-mail: johnt@texasalliance.org
Houston: PO Box 1018, Pearland, TX 77588 (281) 997-7223 E-mail: sandis@texasalliance.org
Wichita Falls: 900 8th Street, Suite 400, Wichita Falls, TX 76301 (940) 723-4131 E-mail: texasalliance@texasalliance.org

Mary Nipper
(b) (6) [redacted]e
[redacted]

RECEIVED
2017 MAR 13 PM 12:57
OFFICE OF THE
EXECUTIVE SECRETARIAT

January 29, 2017

The President Donald Trump
The White House
1600 Pennsylvania Avenue NW
Washington, DC 20500

Dear President Trump and EPA Director Scott Pruitt:

You say that you want to keep America safe. You talk about wanting to raise awareness of the American people regarding the threat of terrorists' attacks in the US and around the world. You recently criticized the news media for not reporting terrorists' attacks on the US soil. **However, there is a much more potent threat to American lives and property than terrorism.**

National Centers for Environmental Information reported that in 2016 there were 15 weather and climate disaster events with **losses exceeding $1 billion each** across the United States. These events included a drought event, 4 flooding events, 8 severe storm events, a tropical cyclone event, and a wildfire event. Overall, these events resulted in the **deaths of 138 people** and had significant economic effects on the areas impacted. During 2016, 70 people were killed in the US from terrorist attacks. Also, there was a much smaller loss of property and many fewer people displaced or injured compared to the climate change related weather events. If you want to make America safe again, then please develop a comprehensive plan to combat climate change and show the world your leadership in this area.

Did you know that on June 30th 2015, China submitted its climate action plan to the Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC) and pledges to generate 20% of their energy from **non-fossil fuel sources** by 2030? China recently pledged to invest in solar energy creating approximately 100,000 full time jobs rather than building 65 coal-fueled electricity plants. China is currently the world's leading producer of renewable energy and leads the world in clean energy investment. An article by Joshua Hill published in Clean Technica in January 2017 stated that China invested a record $32 billion in global renewable energy projects during 2016 and is expecting to invest at least $361 billion into its own renewable energy sector by 2020, securely placing China as the leading clean energy player in the world. By comparison, the United States Department of Energy 2016 budget for the Office of Energy Efficiency and Renewable Energy was less than $3 Billion.

The best investment you can make to grow the economy and make America Safe Again is to invest in renewable CLEAN energy! I'm counting on you!

Sincerely,

Mary Nipper

February 15, 2017

(b) (6) [redacted]

RECEIVED
2017 MAR 13 PM 12:57
OFFICE OF THE
EXECUTIVE SECRETARIAT

Catherine McCabe
USEPA Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
1101A
Washington, DC 20460

Dear Ms. McCabe,

It has come to my understanding that the United States government is promoting the sale of electric vehicles by paying $7,500 for every electric vehicle purchased. According to a new study published by the National Bureau of Economic Research, electric vehicles are actually worse for the environment than conventional gasoline powered vehicles. The power used by electric vehicles is produced using more environmentally detrimental methods than refining and burning gasoline. In 20 of our states (WV, IN, KY, WY, ND, UT, OH, MO, NM, KS, IO, NE, MI, CO, WI, GA, MN, MD, NC, and TN) more than 50% of power produced is from coal. According to the study, the environmental health effects of burning coal is 80% worse compared to burning gasoline in our vehicles. Even in States where majority of their energy is renewable (WA, ID, OR, SD, and MT), electric vehicles are still damaging the environment.

Electric vehicle lithium ion batteries are produced from rare earth metals such as Cobalt, which only resides in Africa's "copper belt". Mining this material uses environmentally damaging resources and causes more harm than good when it is used in lithium ion batteries. Together, the production of electricity and production of batteries outweighs the benefit of owning a zero emission electric vehicle. Driving a gasoline powered vehicle is still the best method of transportation.

The government should not be rewarding the sale of electric vehicles, but instead be rewarding people who drive less. Instead of paying the $7,500 for every electric vehicle sold, the government should provide an incentive to drive less. Whether it be a tax break or reward money, people love incentives. This is the only way to actually reduce emissions from vehicles . The false advertisement of electric vehicles needs to stop, and we need to start thinking about our environment. We are at a critical turning point where our situation could get a lot worse or gradually get better.

Please consider what I think is a major flaw in our system, and help gradually make our planet healthier.

Best Regards,

Curtis Klopfer

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
2565 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105-2498

OFFICE OF
AIR AND RADIATION

April 11, 2017

Mr. Curtis Klopfer
(b) (6)

Dear Mr. Klopfer:

Thank you for your letter regarding the federal tax credit for electric vehicles. You suggest the government should discontinue this incentive—which provides up to $7500 for qualifying purchases—due to the environmental impacts associated with electric vehicles. First, we'd like to clarify that the Qualified Plug-in Electric Drive Motor Vehicle Credit was established by Congress and is administrated by the Internal Revenue Service. The U.S. Environmental Protection Agency does not have a role in issuing this credit, nor could the EPA remove or modify the authorizing legislation.

You raise two concerns about the environmental impacts of electric vehicles (EVs): the emissions associated with generating electricity and the impacts of manufacturing the batteries. We agree that these are important factors to consider.

As you correctly point out, the emissions associated with power plants vary significantly based on the local electricity generation mix, e.g., coal, natural gas, nuclear, biomass, or renewables. In order to help people estimate the greenhouse gas (GHG) emissions associated with charging and driving an EV where they live, the EPA and DOE developed the *Beyond Tailpipe Emissions* calculator on fueleconomy.gov. Users can type in their zip code to see the GHG estimates for a particular EV or plug-in hybrid electric vehicle (PHEV) model in their region, and to compare the emissions to those associated with an average new gasoline car. Even accounting for power plant emissions, we find that EVs and PHEVs are typically responsible for lower GHG levels compared to gasoline vehicles. As more renewable power sources are brought onto the electricity grid, the GHG benefits of electric vehicles will be even higher.

Other studies, including the one you referenced, have done this sort of comparison (sometimes referred to as "well-to-wheels") between EVs and gasoline cars across a range of pollutants and have come to

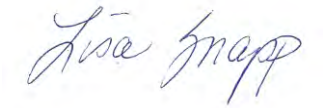
differing conclusions about the relative impacts. Some of the factors that impact study findings are the different assumptions researchers make about the time of day vehicles are charged, the relative efficiency of the EV and gasoline vehicles being compared, and how the electricity grid may change in the future. The EPA is glad to see research advance on this topic and plans to continue to monitor new work.

We also welcome new research on the environmental impacts associated with producing electric vehicle batteries. A few years ago the EPA published its own study, in conjunction with DOE and other partners, that assessed these impacts for several Li-ion battery chemistries with the goal of assisting battery manufacturers in the selection of lower-impact manufacturing processes and materials. This study, *Application of Lifecycle Assessment to Nanoscale Technology: Li-ion Batteries for Electric Vehicles,* is available online (epa.gov/saferchoice). In the future, better and more cost-effective recycling processes for Li-ion batteries could also lower environmental impacts by reducing the need for raw material extraction. And batteries may be able to be re-used to provide energy storage for the electricity grid, or for other applications.

Finally, you suggest the government should incentivize people to drive less in order to reduce emissions. While we agree that driving less would reduce emissions, as you suggest, the EPA does not have the authority to issue such monetary rewards; however, we do provide information on the environmental benefits of changing travel habits. For example, our Green Vehicle Guide website epa.gov/greenvehicles includes the paper *What If We Kept Our Cars Parked for Trips Less Than One Mile*? as well as an interactive tool people can use to estimate the GHG benefits from reducing car trips, choosing higher MPG vehicles, or using alternative fuels (see *Choose a Path to Lower GHG Passenger Travel.)*

Thank you again for your letter, and for your interest in these important issues.

Sincerely,



Lisa Snapp
Director, Climate Analysis and Strategies Center
Transportation and Climate Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

MAR 2 1 2017

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

Mr. Art Allen
Mr. David Sharp
Mr. Harold Maxwell
Yuma County Farm Bureau
Post Office Box 383
Wellton, Arizona 85356

Dear Mr. Allen, Mr. Sharp and Mr. Maxwell:

Thank you for your letter dated February 7, 2017, to the U.S. Environmental Protection Agency regarding the proposed rule, "Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area Classifications and State Implementation Plan Requirements" (Docket ID: EPA-HQ-OAR-2016-0202). On behalf of the Administrator, we appreciate your input and will consider your views and concerns as we develop a final rule.

If you have further general questions or concerns regarding the proposed rule, you or your staff may contact Mr. Robert Lingard at *lingard.robert@epa.gov* or at (919) 541-5272.

Sincerely,

Anna Marie Wood
Director
Air Quality Policy Division

Yuma County Farm Bureau

P.O. Box 383

Wellton, Arizona 85356

Fundamentally laws should be obtainable by the people they are designed to protect. If they are not, which appears to be the case in Yuma, how will you ever get cooperation out of the general public? Eliminating 100% of the manmade ozone produced in Yuma County is not realistic. **There is no way that the population can make the new standard even if everyone packed up and moved aw**ay. This new standard is not reasonable because it includes items that are beyond our control.

Again for the reasons stated above we are in opposition to the 2015 NAAQS Implementation rule concerning ozone.

Thank you for your consideration in this matter.

Respectfully,

Art Allen	David Sharp	Harold Maxwell
Yuma County	Yuma County	Yuma County
Farm Bureau	Farm Bureau	Farm Bureau

cc. Senator Jeff Flake, Senator John McCain, Representative Paul Gosar, Representative Trent Franks, Representative David Schweikert, Representative Martha McSally, Governor Doug Ducey

RECEIVED
2017 MAR 13 PM 12:57
OFFICE OF THE
EXECUTIVE SECRETARIAT

Yuma County Farm Bureau

P.O. Box 383

Wellton, Arizona 85356

Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington DC 20460

February 7, 2017

RE: Docket No. EPA-HQ-OAR-2016-0202-0001

Dear Sir or Madame:

We are writing in opposition to the 2015 NAAQS Implementation rule concerning ozone. We oppose this rule for the following reasons.

The Clean Air Act was designed for Point Source emissions. The concept was to target specific producers of air pollution and reduce their emissions. Now the Clean Air Act is being used for non-point source pollution as well. Non-point source pollution is pollution that cannot be attributed to a specific entity. This is a particular problem for Yuma County as the majority of the manmade ozone in our county is non-point source, per the EPA. It is transported to our county by the prevailing winds from California and Mexico. We have no control over the ozone produced outside of our county.

The EPA study indicates that manmade ozone, produced in Yuma County, is about 5 ppb. Currently we have been measured at 76 ppb with the EPA setting a new goal of 70 ppb. That means that if we totally eliminated manmade ozone production in Yuma County we still could not make the standard of 70 ppb.

We are very concerned with the impact such a ruling would have in attracting industry to our county. Currently our county has one of the highest unemployment rates in the country. We need to be able to attract industry so we can create jobs for the people of Yuma County. The EPA's position that we could trade out ozone credits by substituting one high ozone producing industry for one that produces less is not plausible. When only 5 ppb of ozone is produced by manmade activity there is not a lot to trade.

RESOLUTION NO. 2016-186-3085

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MIAMI GARDENS, FLORIDA, OPPOSING THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION'S (DEP) WEAKENING OF RESTRICTIONS THAT WOULD ALLOW AN INCREASE IN THE RELEASE OF TOXIC CHEMICALS INTO FLORIDA'S WATERS; URGING THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA) NOT TO APPROVE THE FLORIDA DEP'S NEW RESTRICTIONS; SUPPORTING THE LAWSUIT FILED BY THE SEMINOLE TRIBE OF FLORIDA AGAINST THE FLORIDA DEP AND THE FLORIDA ENVIRONMENTAL REGULATIONS COMMISSION (FERC) TO HALT THE INCREASE OF TOXINS IN FLORIDA'S WATER; OPPOSING ANY EFFORT BY THE DEP OR THE FERC TO OPPOSE THE SEMINOLE LITIGATION; PROVIDING FOR INSTRUCTIONS TO THE CITY CLERK; PROVIDING FOR THE ADOPTION OF REPRESENTATIONS; PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the Florida Department of Environmental Protection (DEP) is Florida's lead agency for environmental management, including protection of Florida's surface waters in accordance with Chapter 403, Florida Statutes, Chapters 62-302 and 62-303, Florida Administrative Code, and the Clean Water Act, and

WHEREAS, DEP is in the process of revising its human health-based surface water quality criteria to update the limits for 43 regulated chemical compounds and to adopt standards for 39 previously unregulated compounds, and

WHEREAS, DEP held three public workshops in May 2016 during which the public expressed their concern with the proposed increases to chemical concentrations and the possible ramifications to public health and the health of our waterways, including the discrepancy between the United States Environmental Protection Agency's (EPA) and the DEP's cancer risk measurements used to revise the standards, and

WHEREAS, on July 26 2016, the Florida Environmental Regulations Commission (FERC) voted to approve DEP's proposed rule changes through revisions to Chapters 62-302 and 62-303 of the Florida Administrative Code, and

WHEREAS, on August 5, 2016, the Seminole Tribe of Florida filed a lawsuit against DEP and FERC to halt the increase' of toxins in Florida's waters, and

WHEREAS, keeping our waterways clean is critical to our local ecosystem, our residents, and our economy, and

WHEREAS, the City works hard to keep pollutants out of its waterways, but the City depends on the County, State, and Federal governments to establish water quality regulations that help preserve local water quality, and

WHEREAS, DEP's revision to the State's surface water quality standards will increase the discharge limits for several of the compounds under review, allowing the release of these chemicals in greater concentrations into Florida's waterways and potentially degrading the quality of local surface waters, and

WHEREAS, opposing the DEP's reduced standards, urging the EPA to not approve these new restrictions, and supporting the Seminole Tribe's litigation will serve to protect the health, safety, welfare, and economy of the citizens and residents of Miami Gardens, and

WHEREAS, Vice Mayor Ighodaro recommends that City Council hereby oppose Florida DEP's weakening of restrictions that would allow an increase in the release of toxic chemicals into Florida's waters; urge the EPA not to approve DEP's new restrictions; support the lawsuit filed by the Seminole Tribe of Florida against DEP and FERC on August 5, 2016 to halt the increase of toxins in Florida's water; oppose any efforts by the DEP or the FERC to oppose the Seminole litigation, and

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MIAMI GARDENS, FLORIDA AS FOLLOWS:

Section 1: ADOPTION OF REPRESENTATIONS: The foregoing Whereas paragraphs are hereby ratified and confirmed as being true, and the same are hereby made a specific part of this Resolution.

Section 2: EXPRESSION OF CITY COUNCIL: The City Council of the City of Miami Gardens hereby oppose Florida DEP's weakening of restrictions that would allow an increase in the release of toxic chemicals into Florida's waters; urges the EPA not to approve DEP's new restrictions; supports the lawsuit filed by the Seminole Tribe of Florida against DEP and FERC on August 5, 2016 to halt the increase of toxins in Florida's water; and opposes any efforts by the DEP or the FERC to oppose the Seminole litigation.

Section 3: INSTRUCTIONS TO THE CITY CLERK: The City Clerk is hereby directed to transmit a copy of this Resolution to the United States Environmental Protection Agency, the Florida Department of Environmental Protection, the Miami-Dade County Board of County Commissioners, the Florida League of Cities, and the Miami-Dade County League of Cities.

Section 4: EFFECTIVE DATE: This Resolution shall take effect immediately upon its final passage.

PASSED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF MIAMI GARDENS AT ITS REGULAR MEETING HELD ON NVEMBER 9, 2016.

OLIVER GILBERT, III, MAYOR

ATTEST:

Ronetta Taylor

RONETTA TAYLOR, MMC, CITY CLERK

PREPARED BY: SONJA KNIGHTON DICKENS, CITY ATTORNEY

SPONSORED BY: VICE MAYOR ERHABOR IGHODARO, PH.D.

Moved by: Harris
Seconded by: Robinson

VOTE: 7-0

Mayor Oliver Gilbert, III	✓ (Yes)	____ (No)
Vice Mayor Erhabor IghodaroM Ph.D.	✓ (Yes)	____ (No)
Councilwoman Lillie Q. Odom	✓ (Yes)	____ (No)
Councilwoman Felicia Robinson	✓ (Yes)	____ (No)
Councilwoman Lisa C. Davis	✓ (Yes)	____ (No)
Councilman Rodney Harris	✓ (Yes)	____ (No)
Councilman David Williams Jr.	✓ (Yes)	____ (No)

State of Florida
County of Miami-Dade

CERTIFICATION

I, the undersigned duly appointed City Clerk of the City of Miami Gardens, Florida, hereby certify that the attached is a true and correct copy of Reso. 2016-186-3085 as shown in the records of the city on file in the office of the city clerk.

Witness my hand and the corporate seal of the city of Miami Gardens, Florida, this 1st day of March 2017.

Asst. to City Clerk
City of Miami Gardens, Florida

March 5, 2017

Kimberli Zakrzewski
(b) (6)
[redacted]

Dear Ms. McCarthy

The EPA has repeatedly shut down it's own fracking-related water contamination investigations after being pressured by the oil and gas industry.

As someone who grew up in California, I have first hand experience with the importance of access to clean water; for personal use, to irrigate crops + for fish + wildlife. We are just now coming out of a very long drought.

I am appalled that you have shut down the investigations in Dimock, PA, Pavillion, WY, and Weatherford, TX.

Access to clean water is a human right. There are alternative energy sources to oil and coal but there is no alternative source for water.

Please re-open the investigations and encourage the oil and gas companies to be environmentally responsible

Sincerely
Kymberli Zakrzewski

RECEIVED
2017 MAR 13 PM 12:57
OFFICE OF THE
EXECUTIVE SECRETARIAT

March 5, 2017

Dear Ms. McCarthy,

The EPA has repeatedly shut down its own fracking-related water contamination investigations after being pressured by the oil & gas industry.

As someone who grew up in Nevada, I have firsthand experience with insufficient water. However, that was due to drought, not pollution. I am appalled that you have shut down the investigations in Dimock, PA; Pavillion, WY; and Weatherford, TX.

Access to clean water is a human right. There are alternative energy sources to oil & coal but there is no alternative source for water.

Please re-open the investigations & encourage the oil & gas companies to be environmentally responsible.

Sincerely,
Alexis Kruse

(b) (6)
[redacted]

RECEIVED
2017 MAR 13 PM 12:55
OFFICE OF THE EXECUTIVE SECRETARIAT

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

May 22, 2017

THE ADMINISTRATOR

Ms. Barbara Georgianna
[redacted]

Dear Ms. Georgianna:

Thank you for your recent correspondence. It is an honor and privilege to lead the U.S. Environmental Protection Agency. Promoting and protecting a strong and healthy environment is one of government's lifeblood priorities, and the EPA is vital to that mission. I look forward to working with the agency's dedicated employees, stakeholders and our state partners on a shared vision to protect our environment for future generations.

We as an agency will always strive to strike a balance between protecting our water, air and natural resources and building our economy. We do not have to choose between them. Our nation has a stellar history of protecting our natural resources and our environment while also respecting economic growth and jobs, and we will continue to do that.

Among my top priorities are improving America's water infrastructure and focusing on the EPA's core mission of protecting our nation's air, water and land. We need to shape the work of the EPA by setting national standards and finding neighborhood solutions. We will also strive for regulatory certainty so regulated industries will know exactly what is expected of them.

I am a firm believer in the EPA's mission to protect human health and the environment and look forward to the opportunity to help provide future generations with a better and healthier environment. I hope you will follow our efforts by visiting www.epa.gov to learn more about the EPA's work and what you can do to help us achieve solid results.

On behalf of everyone at the EPA, I thank you for your interest in our work and your support for protecting the environment.

Respectfully yours,

E. Scott Pruitt

March 4, 2017

RECEIVED
2017 MAR 13 PM 12: 55
OFFICE OF THE
EXECUTIVE SECRETARIAT

Scott Pruitt, Administrator
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Mr. Pruitt,

Please save our future and *keep the EPA* as it is. What purpose is served when the environment is destroyed and the health and safety of workers is risked – the gain of a very few wealthy individuals and jobs? We cannot mine for minerals and oil without conscience and call if "jobs." Let's find jobs that *create and sustain* a better environment. We as Americans are overwhelmingly ready to invest in such a future – a future that cares for the entire population and not just a few.

Please *support scientific integrity* and not hubris. Our very lives and our future depend on it. Would you go to a doctor or hospital that did not support and engage in the latest in evidence-based practice?

Please *allow avenues of funding for research for alternatives to pesticides*. We cannot poison crops against pests and expect bees and people to thrive in that same environment. The very people who might benefit from the products are diminished and made sick.

Please allow *all websites with information pertaining to the environment to remain open and honest* to the public. Creating secrecy about environmental destruction and inhumane practices is akin to one who molest his own children and presents the face of perfect fatherhood to the community.
What world do you want to leave for our children and grandchildren?
This is our only home – the planet, Earth.

Sincerely,

Barbara Georgianna

Barbara Georgianna
(b) (6)
[redacted]

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

MAR 22 2017

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

Donald E. McNallen
(b) (6)

Dear Mr. McNallen:

Thank you for your letter of March 5, 2017 to U.S. Environmental Protection Agency Administrator Scott Pruitt, regarding the EPA's Information Collection Request (ICR) effort in the oil and natural gas sector. The Administrator asked that I respond on his behalf.

As you may know, EPA withdrew the ICR because the Administrator would like to assess the need for the information that the agency was collecting through these requests. We appreciate your comments on this matter and for completing the survey.

Again, thank you for your letter, I appreciate the opportunity to be of service. We look forward to engaging with you and other independent oil and gas companies in the future.

Sincerely,

Jennifer Moran Edmonds
for

Steve D. Page
Director
Office of Air Quality Planning
and Standards

Donald E. McNallen
(b) (6)
[redacted]

RECEIVED
2017 MAR 13 PM 12: 55
OFFICE OF THE
EXECUTIVE SECRETARIAT

March 5, 2017

Mr. Scott Pruitt
Administrator, U.S. Environmental Protection Agency
Office of the Administrator 1101A
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

Re: Information Compliance Request (ICR) from EPA

Dear Mr. Pruitt:

I would like to personally thank you for eliminating the requirement that oil and gas operators submit this burdensome and unnecessary methane emissions report to the EPA. As the owner of a small independent oil and gas producing company, I was very concerned about this intrusion by the federal government into an area of regulation traditionally under the purview of state oil and gas regulatory agencies.

Although my company did comply with the request and forwarded the required information to EPA, I was concerned over the possibility of more regulatory overreach by the federal government once these surveys had been completed by the 15,000 oil and gas operators who received them. Your decision to rescind these reporting requirements was very well considered, and in eliminating a significant regulatory impediment to oil and gas producers, you are doing our country a great service.

Sincerely,

Donald E. McNallen

Donald E. McNallen

Mon Mar 13 14:57:02 EDT 2017
Hope.Brian@epamail.epa.gov
FW: Town of Cutler Bay Resolution# 17-12
To: CMS.OEX@epamail.epa.gov

From: Mauricio Melinu [mailto:MMelinu@cutlerbay-fl.gov]
Sent: Monday, March 13, 2017 11:14 AM
To: Rafael Casals <RCasals@cutlerbay-fl.gov>; Debra Eastman <DEastman@cutlerbay-fl.gov>
Cc: Mauricio Melinu <MMelinu@cutlerbay-fl.gov>
Subject: Town of Cutler Bay Resolution# 17-12

On behalf of the Mayor and Town Council of the Town of Cutler Bay, please find attached Resolution# 17-12 passed and adopted at the February 15, 2017 Town Council Meeting affirming the Town's opposition to the Florida Department of Environmental Protection and Environmental Regulation Commission's weakening of human health protections through new human health-based water quality criteria for our waters; urging the U.S. Environmental Protection Agency to not approve Florida's proposed human health-based water quality criteria.

Thank you

Mauricio Melinu
Assistant to the Town Clerk
Office of the Town Clerk

Town of Cutler Bay
Cutler Bay Town Center
10720 Caribbean Blvd.
Suite 105
Cutler Bay, Florida 33189
Tel: (305) 234-4262
Fax: (305) 234-3525

www.cutlerbay-fl.gov

Please consider the environment before printing this e-mail

PLEASE NOTE: Under Florida law, e-mail addresses are public records. If you do not want your e-mail address released in response to a public records request, do not send electronic mail to this entity. Instead, contact this office by phone or in writing.

RESOLUTION NO. 17-12

A RESOLUTION OF THE MAYOR AND TOWN COUNCIL OF THE TOWN OF CUTLER BAY, FLORIDA, AFFIRMING THE TOWN'S OPPOSITION TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENVIRONMENTAL REGULATION COMMISSION'S WEAKENING OF HUMAN HEALTH PROTECTIONS THROUGH NEW HUMAN HEALTH-BASED WATER QUALITY CRITERIA FOR OUR WATERS; URGING THE U.S. ENVIRONMENTAL PROTECTION AGENCY TO NOT APPROVE FLORIDA'S PROPOSED HUMAN HEALTH-BASED WATER QUALITY CRITERIA; PROVIDING FOR TRANSMITTAL; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the Town of Cutler Bay strives to provide its residents and visitors with clean water for all uses and activities as clean water is vital to the health of Florida's environment, citizens, and economy; and

WHEREAS, the Florida Department of Environmental Protection (DEP) is Florida's lead agency for environmental management, and has obligations that include protecting Florida's air, water, and land pursuant to Chapter 403, Florida Statutes; and

WHEREAS, on July 26, 2016, the Florida Environmental Regulation Commission (ERC), voted to approve a proposal from DEP for Human Health-Based Water Quality Criteria (HHWQC) that would weaken the restrictions on the allowable levels of more than two dozen toxic chemicals that may be released in Florida's lakes, streams, and coastal waters through revisions to Chapters 62-302 and 62-303 of the Florida Administrative Code; and

WHEREAS, the approved criteria allow an increase of toxic and/or carcinogenic chemicals to be discharged into Florida waters that are used for sources of drinking water, shellfish harvesting, fishing and swimming which will increase Floridians' risk of cancer; and

WHEREAS, the weakening of Florida's water quality criteria will encourage more industrial discharge including new highly polluting industrial activities such as oil and gas drilling, to locate in Florida hindering the safety of our State waters and the public; and

WHEREAS, higher levels of toxic chemicals, such as Benzene, in Florida's waters will likely result in more pain and suffering as well as higher health care costs from diseases such as cancer, leukemia, nervous and immune system disorders, birth defects and other serious diseases; and

WHEREAS, the standards approved by the ERC will now go to the United States Environmental Protection Agency for final review and approval; and

WHEREAS, the Town Council deems it to be in the best interest and welfare of the residents of the Town to oppose DEP's weakening of restrictions that would allow an increase in the release of toxic chemicals into Florida's waters.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND TOWN COUNCIL OF THE TOWN OF CUTLER BAY, FLORIDA, AS FOLLOWS:

Section 1. Recitals. The above recitals are true and correct and are incorporated herein by this reference.

Section 2. Expression of Opposition. The Town Council hereby opposes the Florida Department of Environmental Protection's weakening of restrictions that would allow an increase in the release of toxic chemicals into Florida's waters and urges the United States Environmental Protection Agency to reject Florida's new restrictions on Human Health-Based Water Quality Criteria.

Section 3. Transmittal. The Town Clerk is hereby directed to transmit a copy of this Resolution to the United States Environmental Protection Agency, the Florida Department of Environmental Protection, the Miami-Dade County Board of County Commissioners, and the Florida League of Cities.

Section 4. Effective Date. This Resolution shall become effective upon adoption.

PASSED and ADOPTED this 15th day of February, 2017

PEGGY R. BELL
Mayor

Attest:

DEBRA E. EASTMAN, MMC
Interim Town Clerk

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY FOR THE
SOLE USE OF THE TOWN OF CUTLER BAY:

WEISS SEROTA HELFMAN
COLE & BIERMAN, P.L
Town Attorney

Moved By: Council Member Coriat
Seconded By: Council Member Mixon

FINAL VOTE AT ADOPTION:

Mayor Peggy R. Bell	YES
Vice Mayor Sue Ellen Loyzelle	YES
Council Member Mary Ann Mixon	YES
Council Member Michael P. Callahan	YES
Council Member Roger Coriat	YES

Mon Mar 13 14:57:06 EDT 2017
Hope.Brian@epamail.epa.gov
FW: Reducing regulation and stimulating economic development
To: CMS.OEX@epamail.epa.gov

From: (b) (6) [mailto: (b) (6) **On Behalf Of** Matt Weldon
Sent: Monday, March 13, 2017 11:27 AM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: Reducing regulation and stimulating economic development

Hello Mr. Pruitt,

I'm writing to get your thoughts on two topics.

1) In regards to the statement you made last week regarding climate change attribution:

“I think that measuring with precision human activity on the climate is something very challenging to do and there’s tremendous disagreement about the degree of impact, so no, I would not agree that it’s a primary contributor to the global warming that we see.”*

I am very interested in knowing what you identify and the primary contributor.

2) The second is to share my support for the idea of addressing green house gases (GHGs) through carbon fee and dividend programs, especially as an alternative to regulatory prohibitions which have been the typical means of pollution control. I think that the advantages and opportunities represented by such a policy are numerous but not always intuitively obvious. I would enjoy opportunity to discuss such things further but a couple examples:

- The US economy has advantages in energy efficiency. A market design that recognizes the cost of emissions favors US production and economic activity - a Trump administration objective.
- Fossil Fuel extraction is based primarily on the cost of extraction. The environmental value of product is not recognized and so a value differentiation that is effectively lost. This is to the detriment of the US since most of our new shale extracted products have superior energy/carbon ratios. So we are allowing the market to prioritize the extraction of other crude oils (Canadian tar sands, Venezuela's heavy crudes) over our own ligther crude oils and natural gas at a time when there is clear need to prioritize usage based on environmental impact. We are leaving money on the table when we are actually justified in demanding better on many fronts.
- Exxon, Shell, European oil majors have all called for a carbon tax as a superior alternative to other proposed ideas. Lets take them at their word and take the lead in moving the world into a market environment that again extols innovation, competitive markets, and transparency. The US will thrive in that environment and will also get to reclaim the mantel of a leader on issues of world import. That such market rules favor US business activity and enable movement toward removing many other regulatory burdens is a happy coincidence that we should embrace.

And a quick note regarding my own background.

I am a chemical engineer and have largely spend my career in semiconductor manufacturing. I currently work at the University of Texas in a nanomanufacturing research facility. I have always embraced the origins of my discipline and have a fondness for the many uses of fossil fuels - fossil fuel based polymers are enabling many new materials and applications. I have no reason to see their use restricted beyond ending the socialization of risk and consequence that the current market rules have accidentally enshrined.

respectfully yours,

Matt Weldon

Austin TX

* https://www.nytimes.com/2017/03/09/us/politics/epa-scott-pruitt-global-warming.html

Mon Mar 13 14:57:04 EDT 2017
Hope.Brian@epamail.epa.gov
FW: Letter regarding human impact on climate
To: CMS.OEX@epamail.epa.gov

From: Wofsy, Steven [mailto: (b) (6)
Sent: Monday, March 13, 2017 10:00 AM
To: Jackson, Ryan <jackson.ryan@epa.gov>; Pruitt, Scott <Pruitt.Scott@epa.gov>
Cc: Molina, Mario < (b) (6)
Subject: Letter regarding human impact on climate

Dear Administrator Pruitt and Mr. Jackson

I am submitting the attached letter on behalf of myself, Prof. Mario Molina, and 28 colleagues, in response to the interview that Administrator Pruitt gave last week addressing human influence on climate. It is intended to contribute to the discussion of this important matter. We would be happy to follow up if you so desired.

Thank you for your consideration.

Sincerely,

Steven C. Wofsy

--

Steven C. Wofsy (wofsy AT g.harvard.edu ; alternate: swofsy AT gmail.com)Abbott Lawrence Rotch Professor of Atmospheric and Environmental ChemistryHarvard UniversitySchool of Engineering and Applied Science/Department of Earth and Planetary Science29 Oxford St., Cambridge, MA 02138Tel. 617-495-4566 FAX 617-495-4551http://atmos.seas.harvard.edu/lab/index.html

Scott Pruitt, Administrator
U.S. Environmental Protection Agency
Pruitt.Scott@epa.gov

March 13, 2017

Dear Administrator Pruitt,

As scientists who study the Earth's climate system, we are deeply troubled by your recent statement that there is “tremendous disagreement” about whether carbon dioxide from human activities is “a primary contributor to the global warming that we see.”

This statement is incorrect. In fact, we know with an exceptionally high degree of confidence that most of the climate warming over at least the last six decades has been caused by rising levels of carbon dioxide and other greenhouse gases in the atmosphere due to the burning of fossil fuels and other human activities. Further, we know that if we continue to increase the atmospheric levels of greenhouse gases, the Earth will continue to heat up, with serious consequences for economies and ecosystems across the globe.

Scientists often disagree on the second- and third-level details of climate science and of new scientific findings, because we are trained to be skeptical and critical thinkers. Indeed, this is how science advances. However, focusing on disagreements over details, or among a few individuals on the margins of consensus, or on the uncertainties that are part of any accurate statement of scientific knowledge, misses the big picture: human beings are changing the Earth’s climate. This key conclusion follows from the basic laws of physics. Just as there is no escaping gravity when one steps off a cliff, there is no escaping the warming that follows when we add extra carbon dioxide and other greenhouse gases to the atmosphere.

Human beings have increased carbon dioxide levels by more than 40%, and levels are rising more rapidly now than ever before, and the climate is warming in response. Our scientific expectations are confirmed by what the Earth itself is telling us. The whole climate system is changing: glaciers are in retreat globally, arctic sea ice is shrinking in extent and volume, plant and animal ranges are moving, growing seasons are shifting, sea levels are rising, and the oceans are becoming more acidic. On these points there is no meaningful controversy among scientists.

Natural factors alone simply cannot explain the great diversity of changes we are seeing with greater and greater frequency throughout the Earth system. After decades of careful and critical study, scientists have found that the only explanation consistent with the data is that human beings are now, by a significant amount, exerting the largest influence on the climate system. No serious alternative hypothesis has been proposed that can account for the observed aforementioned changes.

We hope that as EPA administrator, you appreciate that just as science has diagnosed the cause of the changes in the Earth’s climate system, science can also provide the basis for solutions that mitigate the risks from climate change and at the same time provide the economic foundation for future American prosperity. Science gives us the principles for designing low-cost clean energy systems that won’t warm the planet. Science helps inform us how to better manage our crops for food and fiber

production at lower environmental impact.

Science shows us clearly that we face grave risks if we fail to slow emissions of carbon dioxide and other greenhouse gases. It is the role of citizens, policymakers, and political leaders to decide which paths are most in accord with societal values and economic priorities. But to be effective, it is critical that these decisions be based on our best unbiased and shared understanding of climate science.

Sincerely,

* Mario J. Molina, Nobel Laureate in Chemistry
Distinguished Professor of Chemistry and Biochemistry
University of California, San Diego, CA

* Steven C. Wofsy, Abbott Lawrence Rotch Professor
Atmospheric and Environmental Science, Harvard University, Cambridge, MA

And the following 28 climate scientists (in alphabetical order. Note: * indicates a member of the U.S. National Academy of Sciences).

David Battisti, Professor of Atmospheric Sciences and Tamaki Endowed Chair
University of Washington, Seattle, WA

Marshall Burke, Assistant Professor of Earth System Science
Stanford University, Stanford CA

Ken Caldeira, Senior Scientist
Carnegie Institution for Science, Stanford, CA

Kim M. Cobb, Professor
Earth and Atmospheric Sciences, Georgia Institute of Technology, Atlanta, GA

Andrew E. Dessler, Professor of Atmospheric Sciences
Texas A&M University, College Station, TX

Noah S. Diffenbaugh, Professor of Earth System Science
Stanford University, Stanford, CA

* Kerry A. Emanuel, Professor of Atmospheric Science
Massachusetts Institute of Technology, Cambridge, MA

* Chris Field, Director, Stanford Woods Institute for the Environment, Stanford, CA

Howard Frumkin, Professor of Environmental and Occupational Health Sciences
School of Public Health, University of Washington, Seattle WA

John Harte, Professor
Energy and Resources, University of California, Berkeley, CA

Jessica Hellmann, Director, Institute on the Environment
Professor, Department of Ecology, Evolution and Behavior,
University of Minnesota, St. Paul, MN

Daniel Kirk-Davidoff, Chief Scientist for Climate and Weather Services
MDA Information Systems, Gaithersburg, MD

Michael C. MacCracken, Chief Scientist for Climate Change Programs
Climate Institute, Washington DC

Katharine Mach, Senior Research Scientist, Department of Earth System Science,
Stanford University, Stanford, CA

* James C. McWilliams, Louis B. Slichter Professor of Earth Sciences
Department of Atmospheric and Oceanic Sciences
University of California, Los Angeles

Michael Oppenheimer, Albert G. Milbank Professor of Geosciences and International
Affairs, Princeton University, Princeton, NJ

Jonathan T. Overpeck, Director, Institute of Environment
Regents Professor, Geosciences, Hydrology, and Atmospheric Sciences
University of Arizona, Tucson, AZ

* Pamela A. Matson, Professor and Dean
School of Earth, Energy & Environmental Sciences, Stanford University, Stanford, CA

* Maureen E. Raymo, Bruce C. Heezen Lamont Research Professor
Lamont-Doherty Earth Observatory of Columbia University, NY

Joellen L. Russell, Associate Professor
Department of Geosciences, University of Arizona, Tucson, AZ

Scott R. Saleska, Associate Professor in Ecology and Evolutionary Biology
Agnese Nelms Haury Faculty Fellow in Environment and Social Justice
University of Arizona, Tucson, AZ

Noelle Eckley Selin, Associate Professor, Institute for Data, Systems and Society
Department of Earth, Atmospheric and Planetary Sciences
Massachusetts Institute of Technology, Cambridge, MA

Drew Shindell, Nicholas Professor of Earth Science
Nicholas School of the Environment, Duke University, Durham, NC

Abigail L.S. Swann, Assistant Professor
Department of Atmospheric Sciences and Department of Biology
University of Washington, Seattle, WA

Kevin E. Trenberth, Distinguished senior scientist
National Center for Atmospheric Research, Boulder, CO

Diana H. Wall, University Distinguished Professor and Director
School of Global Environmental Sustainability
Colorado State University, Fort Collins, CO

* John Michael Wallace, Professor Emeritus
Department of Atmospheric Sciences, University of Washington, Seattle, WA

Paul O. Wennberg, Director, The Linde Center for Global Environmental Science
California Institute of Technology, Pasadena, CA

Note: This letter represents the personal views of the signatories, not those of their institutions. Academic titles/affiliations are included here for identification purposes only.

Mon Mar 13 14:57:05 EDT 2017
Hope.Brian@epamail.epa.gov
FW: Restore Exemptions and Affirmative Defense Provisions Addressing Startup, Shutdown, and Malfunction (SSM) Events at Manufacturing Facilities
To: CMS.OEX@epamail.epa.gov

For the Daily Reading File

From: Marnie Satterfield [mailto: (b) (6)
Sent: Monday, March 13, 2017 9:49 AM
Subject: Restore Exemptions and Affirmative Defense Provisions Addressing Startup, Shutdown, and Malfunction (SSM) Events at Manufacturing Facilities

March 13, 2017

The Honorable John Barrasso

Chairman

Committee on Environment and Public Works

U.S. Senate

Washington, DC 20510

The Honorable Thomas Carper

Ranking Member

Committee on Environment and Public Works

U.S. Senate

Washington, DC 20510

The Honorable Greg Walden

Chairman

Committee on Energy and Commerce

U.S. House of Representatives

Washington, DC 20515

The Honorable Frank Pallone

Ranking Member

Committee on Energy and Commerce

U.S. House of Representatives

Washington, DC 20515

Re: Restore Exemptions and Affirmative Defense Provisions Addressing Startup, Shutdown, and Malfunction (SSM) Events at Manufacturing Facilities

Dear Committee Chairmen and Ranking Members:

This letter respectfully requests members of Congress to take action to restore the exemptions and affirmative defense provisions for startup, shutdown, and malfunction (SSM) events at manufacturing facilities. Unless Congress takes action quickly, every manufacturing company in the country operating under a Title V air permit could be subjected to unnecessary citizen suits and potential civil penalties as they shutdown and start-up their equipment in order to conduct maintenance activities and other planned and unplanned outages.

The Industrial Energy Consumers of America (IECA) is a nonpartisan association of leading manufacturing companies with approximately $1.0 trillion in annual sales and with more than 1.6 million employees worldwide. IECA membership represents a diverse set of industries including: chemicals, plastics, steel, iron ore, aluminum, paper, food processing, fertilizer, insulation, glass, industrial gases, pharmaceutical, building products, automotive, brewing, independent oil refining, and cement manufacturing.

From the inception of the Clean Air Act, EPA promulgated regulations and approved State Implementation Plans (SIPs) that granted exemptions and affirmative defense provisions for emissions during SSM events. But through an overly broad and unsupportable interpretation of two recent court decisions – *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008) and *NRDC v. EPA*, 749 F.3d 1055 (D.C. Cir. 2014) – EPA abruptly changed course and began a systemic process of eliminating existing SSM exemptions and affirmative defense provisions from various Clean Air Act regulations and previously-approved SIPs.

Congress never intended for the EPA to eliminate SSM emergency exemptions that have existed and been successfully implemented for over 30 years. These exemptions provide certainty and flexibility for companies to lawfully maintain their equipment and, most importantly, to protect the safety of their workers and the surrounding communities without violating air permits.

IECA urges Congress to reestablish these important exemptions that EPA has removed from the Clean Air Act regulations following EPA's strained interpretations of *Sierra Club* and *NRDC*. A permanent solution cannot easily be accommodated through the executive branch action alone, because any executive action will most certainly result in long drawn-out litigation. For instance, EPA's decision to eliminate SSM exemptions from many SIPs is currently in litigation at the federal court. *See Walter Coke v. EPA* (D.C. Cir. No. 15-1166). IECA is simply requesting that Congress clarify its original intent to allow for SSM exemptions under the Clean Air Act.

The CAA has always provided flexibility and regulatory certainty for SSM exemptions. From the beginning of the Clean Air Act, companies have been granted flexibility and regulatory certainty during periods of SSM. Now, there is absolute certainty that more and more companies will be forced to defend costly citizen suits and potential civil penalties for SSM activities that cannot be avoided. Without the exemptions, even if EPA and/or a state regulatory agency use enforcement discretion and decide not to pursue enforcement action based on a reasoned analysis of the facts surrounding the SSM event, citizens could still bring civil actions wasting court, EPA, and company resources. Further, unresolved recurring air violations can directly impact a company's ability to secure future air permits to operate and/or expand production facilities, threatening commercial viability in the long-term. It is a vicious circle.

Exemptions still require companies to minimize emissions. It is important to note that under the long-standing exemptions for SSM events under the Clean Air Act, companies were still required to minimize emissions during such events and in many cases perform corrective actions to prevent reoccurrence of the events. However, sometimes excess emissions during SSM events are unavoidable. Without the exemptions, even though a company does everything right, it could still be in violation of the Clean Air Act and penalized. That is the potential consequence of inaction by Congress.

Equipment must be periodically shutdown for safety of employees and community. For safety reasons and to ensure that facilities continue to operate efficiently and in compliance with the Clean Air Act, process equipment must be periodically shutdown for maintenance. This is a major decision on the part of any company and requires significant planning and expenses. During maintenance activities, products that would otherwise be produced by the facility to supply customers must be accommodated through other means. While equipment is shutdown for maintenance, the equipment and processes are examined, repaired and/or replaced, including equipment needed to ensure air quality compliance, such as air emissions monitors and devices used to capture and control air emissions.

As equipment cycles through shutdown and start up periods, emissions can rise to levels that exceed air permit limits and other federal standards established for normal operating conditions for a short period of time. Specific emission limits and conditions were never established to account for these short periods, because emissions during these events are in most cases unavoidable. During start up, equipment cannot go from 0-60 mph and constantly operate at steady-state conditions. While there are several major pieces of equipment and processes that work together in harmony when in full and normal operation, they often require different start-up conditions as they ramp-up to normal full-load capacity. In fact, the original equipment manufacturers (OEMs) will not guarantee the performance of the equipment unless very specific start-up procedures are used and implemented. Further, OEMs only guarantee emissions performance of the equipment during normal steady state operation. It is to the economic advantage of every company to shutdown and restart the facilities as quickly and as safely as possible. In addition, the OEMs establish certain required procedures to prevent and mitigate catastrophic failure of their equipment.

Process malfunction emissions are included in the SSM exemption. Emissions due to equipment or process malfunction are also included in the long-standing SSM exemptions. The EPA regulations, at 40 C.F.R. § 63.2, define a malfunction as "any sudden, infrequent, ***and not reasonably preventable failure*** of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded" (emphasis added). By its very definition, a malfunction cannot reasonably be avoided or prevented. The only way to potentially prevent emissions due to equipment malfunction is through routine maintenance actions that often require the equipment to shutdown and start up.

Further, Section 112(r) of the Clean Air Act specifically requires many facilities to maintain their equipment to prevent accidental releases of hazardous substances. It makes no sense to require a facility to shutdown and perform maintenance to comply with Section 112(r) of the Clean Air Act and then penalize that same facility for unavoidable emissions during the shutdown and subsequent startup. In drafting the Clean Air Act, Congress never intended for companies to choose between safety and environmental compliance.

Facility emissions are reported to authorities and available to the public. Please note that facilities have methods of monitoring their emissions, and they are required to report this information to the appropriate local, state, and federal agencies as part of their compliance obligations. The information is also available publicly through a very transparent reporting scheme. Further, the long-standing SSM exemptions have never been a free pass to pollute. Facilities still have to demonstrate that they follow procedures, maintain their equipment, and minimize emissions throughout the SSM event. Without the SSM exemptions, facilities that do everything the right way may be forced to defend a citizen suit and face potential civil penalties. This unproductive and wasteful approach was clearly never the intent of Congress in passing the Clean Air Act.

Congress is urged to act. For all of these reasons and based upon the realities of manufacturing operations, regulators have historically and explicitly excluded emissions that occur during SSM events from being regulated in the same manner as emissions that occur during normal operations. IECA is seeking the reinstatement of these exclusions.

We respectfully urge the Congress to restore the exemptions and affirmative defense provisions for SSM events. A quick action by Congress is necessary to provide a remedy for the manufacturing facilities and ensure regulatory certainty. We look forward to working with you to prevent the potential for thousands of costly citizen suits, which will unnecessarily overwhelm the judicial system.

Sincerely,

Paul N. Cicio

President

cc: Senate Committee on Environment and Public Works

House Committee on Energy and Commerce

The Honorable Scott Pruitt, EPA Administrator

********** ATTACHMENT REMOVED **********

This message contained an attachment which the administrator has caused to be removed.

********** ATTACHMENT REMOVED **********

Attachment name: [image001.jpg]
Attachment type: [image/jpeg]

Industrial Energy Consumers of America
The Voice of the Industrial Energy Consumers

1776 K Street, NW, Suite 720 • Washington, D.C. 20006
Telephone (202) 223-1420 • www.ieca-us.org

March 13, 2017

The Honorable John Barrasso
Chairman
Committee on Environment and Public Works
U.S. Senate
Washington, DC 20510

The Honorable Greg Walden
Chairman
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

The Honorable Thomas Carper
Ranking Member
Committee on Environment and Public Works
U.S. Senate
Washington, DC 20510

The Honorable Frank Pallone
Ranking Member
Committee on Energy and Commerce
U.S. House of Representatives
Washington, DC 20515

Re: Restore Exemptions and Affirmative Defense Provisions Addressing Startup, Shutdown, and Malfunction (SSM) Events at Manufacturing Facilities

Dear Committee Chairmen and Ranking Members:

This letter respectfully requests members of Congress to take action to restore the exemptions and affirmative defense provisions for startup, shutdown, and malfunction (SSM) events at manufacturing facilities. Unless Congress takes action quickly, every manufacturing company in the country operating under a Title V air permit could be subjected to unnecessary citizen suits and potential civil penalties as they shutdown and start-up their equipment in order to conduct maintenance activities and other planned and unplanned outages.

The Industrial Energy Consumers of America (IECA) is a nonpartisan association of leading manufacturing companies with approximately $1.0 trillion in annual sales and with more than 1.6 million employees worldwide. IECA membership represents a diverse set of industries including: chemicals, plastics, steel, iron ore, aluminum, paper, food processing, fertilizer, insulation, glass, industrial gases, pharmaceutical, building products, automotive, brewing, independent oil refining, and cement manufacturing.

From the inception of the Clean Air Act, EPA promulgated regulations and approved State Implementation Plans (SIPs) that granted exemptions and affirmative defense provisions for emissions during SSM events. But through an overly broad and unsupportable interpretation of two recent court decisions – *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir.

2008) and *NRDC v. EPA*, 749 F.3d 1055 (D.C. Cir. 2014) – EPA abruptly changed course and began a systemic process of eliminating existing SSM exemptions and affirmative defense provisions from various Clean Air Act regulations and previously-approved SIPs.

Congress never intended for the EPA to eliminate SSM emergency exemptions that have existed and been successfully implemented for over 30 years. These exemptions provide certainty and flexibility for companies to lawfully maintain their equipment and, most importantly, to protect the safety of their workers and the surrounding communities without violating air permits.

IECA urges Congress to reestablish these important exemptions that EPA has removed from the Clean Air Act regulations following EPA's strained interpretations of *Sierra Club* and *NRDC*. A permanent solution cannot easily be accommodated through the executive branch action alone, because any executive action will most certainly result in long drawn-out litigation. For instance, EPA's decision to eliminate SSM exemptions from many SIPs is currently in litigation at the federal court. *See Walter Coke v. EPA* (D.C. Cir. No. 15-1166). IECA is simply requesting that Congress clarify its original intent to allow for SSM exemptions under the Clean Air Act.

The CAA has always provided flexibility and regulatory certainty for SSM exemptions. From the beginning of the Clean Air Act, companies have been granted flexibility and regulatory certainty during periods of SSM. Now, there is absolute certainty that more and more companies will be forced to defend costly citizen suits and potential civil penalties for SSM activities that cannot be avoided. Without the exemptions, even if EPA and/or a state regulatory agency use enforcement discretion and decide not to pursue enforcement action based on a reasoned analysis of the facts surrounding the SSM event, citizens could still bring civil actions wasting court, EPA, and company resources. Further, unresolved recurring air violations can directly impact a company's ability to secure future air permits to operate and/or expand production facilities, threatening commercial viability in the long-term. It is a vicious circle.

Exemptions still require companies to minimize emissions. It is important to note that under the long-standing exemptions for SSM events under the Clean Air Act, companies were still required to minimize emissions during such events and in many cases perform corrective actions to prevent reoccurrence of the events. However, sometimes excess emissions during SSM events are unavoidable. Without the exemptions, even though a company does everything right, it could still be in violation of the Clean Air Act and penalized. That is the potential consequence of inaction by Congress.

Equipment must be periodically shutdown for safety of employees and community. For safety reasons and to ensure that facilities continue to operate efficiently and in compliance with the Clean Air Act, process equipment must be periodically shutdown for maintenance. This is a major decision on the part of any company and requires significant planning and expenses. During maintenance activities, products that would otherwise be produced by the facility to supply customers must be accommodated through other means. While equipment is shutdown for maintenance, the equipment and processes are examined,

repaired and/or replaced, including equipment needed to ensure air quality compliance, such as air emissions monitors and devices used to capture and control air emissions.

As equipment cycles through shutdown and start up periods, emissions can rise to levels that exceed air permit limits and other federal standards established for normal operating conditions for a short period of time. Specific emission limits and conditions were never established to account for these short periods, because emissions during these events are in most cases unavoidable. During start up, equipment cannot go from 0-60 mph and constantly operate at steady-state conditions. While there are several major pieces of equipment and processes that work together in harmony when in full and normal operation, they often require different start-up conditions as they ramp-up to normal full-load capacity. In fact, the original equipment manufacturers (OEMs) will not guarantee the performance of the equipment unless very specific start-up procedures are used and implemented. Further, OEMs only guarantee emissions performance of the equipment during normal steady state operation. It is to the economic advantage of every company to shutdown and restart the facilities as quickly and as safely as possible. In addition, the OEMs establish certain required procedures to prevent and mitigate catastrophic failure of their equipment.

Process malfunction emissions are included in the SSM exemption. Emissions due to equipment or process malfunction are also included in the long-standing SSM exemptions. The EPA regulations, at 40 C.F.R. § 63.2, define a malfunction as "any sudden, infrequent, ***and not reasonably preventable failure*** of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded" (emphasis added). By its very definition, a malfunction cannot reasonably be avoided or prevented. The only way to potentially prevent emissions due to equipment malfunction is through routine maintenance actions that often require the equipment to shutdown and start up. Further, Section 112(r) of the Clean Air Act specifically requires many facilities to maintain their equipment to prevent accidental releases of hazardous substances. It makes no sense to require a facility to shutdown and perform maintenance to comply with Section 112(r) of the Clean Air Act and then penalize that same facility for unavoidable emissions during the shutdown and subsequent startup. In drafting the Clean Air Act, Congress never intended for companies to choose between safety and environmental compliance.

Facility emissions are reported to authorities and available to the public. Please note that facilities have methods of monitoring their emissions, and they are required to report this information to the appropriate local, state, and federal agencies as part of their compliance obligations. The information is also available publicly through a very transparent reporting scheme. Further, the long-standing SSM exemptions have never been a free pass to pollute. Facilities still have to demonstrate that they follow procedures, maintain their equipment, and minimize emissions throughout the SSM event. Without the SSM exemptions, facilities that do everything the right way may be forced to defend a citizen suit and face potential civil penalties. This unproductive and wasteful approach was clearly never the intent of Congress in passing the Clean Air Act.

Congress is urged to act. For all of these reasons and based upon the realities of manufacturing operations, regulators have historically and explicitly excluded emissions that occur during SSM events from being regulated in the same manner as emissions that occur during normal operations. IECA is seeking the reinstatement of these exclusions.

We respectfully urge the Congress to restore the exemptions and affirmative defense provisions for SSM events. A quick action by Congress is necessary to provide a remedy for the manufacturing facilities and ensure regulatory certainty. We look forward to working with you to prevent the potential for thousands of costly citizen suits, which will unnecessarily overwhelm the judicial system.

Sincerely,

Paul N. Cicio
President

cc: Senate Committee on Environment and Public Works
House Committee on Energy and Commerce
The Honorable Scott Pruitt, EPA Administrator

Hollis Raphael Weisman
(b) (6)

RECEIVED
2017 MAR 13 PM 12:54
OFFICE OF THE
EXECUTIVE SECRETARIAT

March 7, 2017

Scott Pruitt, Administrator
Mail Code 1101A
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Re: Protecting the environment

Dear Mr. Pruitt:

I do not understand why anyone who calls himself a "conservative" or "Republican" believes it appropriate to weaken half a century of air and water protections. Maryland alone cannot protect the Chesapeake Bay, or the Potomac River, or the Atlantic beaches. The air and water do not recognize political state boundaries. Only federal protections, which have been trying hard for the last half-century to keep our country great, can effect this.

I hope you re-think the dangerous course that the government has begun, which will reduce Americans' quality of life everywhere. People in "coal country" have unpotable water. People living around the Chesapeake Bay have seen remarkable improvement in the wildlife and vegation that exists there. Only continued regulation will maintain that course. How can America be great if we cannot breathe clean air, drink clean water, or enjoy our environment?

I look forward to hearing from you on this matter.

Yours very truly,

Hollis Raphael Weisman

Hollis Raphael Weisman

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
2565 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105-2498

APR 0 4 2017

OFFICE OF
AIR AND RADIATION

Kieron Lake
[redacted] (b) (6)

Dear Mr. Lake:

Thank you for your letter of March 6, 2017, to U.S. Environmental Protection Agency Administrator Scott Pruitt and National Highway Traffic Safety Administration (NHTSA) Dr. Mark Rosekind, regarding the EPA regulations governing the importation of vehicles, which exempts imported vehicles that are greater than 20 original production years old[1] from needing to meet the EPA requirements. The Administrator has asked me to respond to you on his behalf.

In your letter, you request that the EPA consider reducing or eliminating the time period for this provision of the regulations. The regulations you refer to were established through a rulemaking in 1987 as part of a larger effort by the agency to address several issues regarding imported vehicles and their potential impact on air quality.

The EPA is not currently working on changes to the regulations concerning vehicle importation but we appreciate your interest in this topic and bringing it to our attention. The changes to the regulations you request would require the agency to undertake a rulemaking which would include a public comment period. In such a rulemaking, the agency would likely consider several factors, including the factors that the agency considered in establishing the importation regulations such as implications for air quality and state vehicle inspection and maintenance programs. The EPA has had and continues to have significantly more environmentally protective vehicle emissions standards and associated program requirements than many other parts of the world. Also, vehicles are generally lasting longer than they ever have before, which we expect would also need to be considered.

[1] Defined as the age of the vehicle as determined by subtracting the original production year of the vehicle from the calendar year of importation.

Again, thank you for your letter. More information about the EPA requirements for importing vehicles is available on our website at https://www.epa.gov/importing-vehicles-and-engines. I appreciate the opportunity to be of service and trust the information provided is helpful.

Sincerely,

William J. Charmley, Director

Assessments and Standards Division

(b) (6)
[redacted]
[redacted]

Dr. Mark Rosekind
NHTSA Headquarters
1200 New Jersey Avenue SE.
West Building
Washington, DC 20590

Mr Scott Pruitt Esq.
USEPA Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N. W.
Mail Code: 1101A
Washington, DC 20460

March 6, 2017

Dear Sirs,

RE: the "25 year rule" import exemption

Please would you support a collaboration between the NHTSA and EPA to reduce or eliminate the 25-year import exemption rule? Currently, an imported car will only be exempt from the NHTSA and EPA requirements that were in effect on the date of its manufacture after 21 years for EPA and 25 years for NHTSA.

Those rules were implemented in the late 1980s to protect Mercedes-Benz from gray market imports. There is still a sound primary basis for regulating the safety and environmental effects on the United States and its citizens from foreign-made goods, but given the technological advances since the 1980s and reasonably balancing the competing secondary interests of: protecting a foreign manufacturer's market share versus Americans being allowed free choice, I suggest that a good middle ground would be closer to 15 years which aligns with our neighbors to the north.

If you or your staff have any questions or wish to enquire further feel free to contact me on: (b) (6) or (b) (6) [redacted].

Yours faithfully and thank you for your time,

Kieron Lake

RECEIVED
2017 MAR 13 PM 12: 54
OFFICE OF THE
EXECUTIVE SECRETARIAT

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 7 2017

OFFICE OF
AIR AND RADIATION

Mark L. Miller, CHP
Scientists for Accurate Radiation Information
620 La Jolla Place NE
Albuquerque, New Mexico 87123-2410

Dear Mr. Miller:

Thank you for your March 3, 2017 letter to the U.S. Environmental Protection Agency in which you and your colleagues express concern about the basis for the agency's radiation regulations. I have been asked to acknowledge and respond to your letter on behalf of the agency.

As you point out in your letter, the U.S. Nuclear Regulatory Commission (NRC) has solicited public comment on this topic. In 2015, the agency provided the NRC with comments in response to that solicitation; the EPA comments are publicly available in the NRC docket at: https://www.nrc.gov/docs/ML1530/ML15301A820.pdf.

Thank you for the time and effort you and your colleagues have taken to express your concern.

Sincerely,

Alan D. Perrin
Acting Director
Radiation Protection Division

S.A.R.I. Scientists for Accurate Radiation Information

RECEIVED
2017 MAR 13 PM 12:54
OFFICE OF THE EXECUTIVE SECRETARIAT

(March 3, 2017)

Scott Pruitt, Administrator
US Environmental Protection Agency, MS 1101A
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Subject: Establishing Scientific Bases for Risk-Based Radiation Regulations

We, the undersigned U.S. and International members of **S**cientists for **A**ccurate **R**adiation **I**nformation (**SARI**) (radiationeffects.org), hereby petition your Agency to revise the bases of risk-based radiation regulations so as to ensure their foundations are based on sound science to best protect human health and the environment. Currently, they are based on the outdated and demonstrably false Linear No-Threshold model (LNT) rather than on more recent evidence-based science [1, 2, 3, 4]. Though initially proposed for radiation safety, the LNT model has crept into use as a basis for determining environmental and clean-up levels for many regulated chemicals, without adequately framing the policies on the best available science[5].

The data from the Japan atomic-bomb long term survivor study were analyzed by Ozasa[6] et al., who performed a dose-threshold analysis using the RERF Life Span Study "gold standard" database and concluded that zero dose is the best estimate of the threshold dose. Their analysis was flawed, since it used a restricted functional form for dose response that did not cover the full range of the observed data nor other possible functional forms that better fit the data. Analysis with a more general functional form has shown that a non-zero dose threshold cannot be excluded, and is more likely consistent with the data [7,8]. Further, RERF itself, in its Report 4-15, showed a new analysis which concluded: "In analysis of the LSS data, compared to the conventional Linear No-Threshold model, the proposed approach estimated smaller risks with wider interval estimates at low doses, which indicated no clear evidence of an increased risk up to 100 mGy of exposure." Thus, the Hiroshima survivor data do not lead to the conclusion of zero dose threshold, contrary to the claim by Ozasa et al.

Accordingly, we believe the EPA should reconsider its antiquated radiation policies based on old science and update its policy to be more consistent with the latest science, and eliminate regulations using LNT and its derivative, the As Low As Reasonably Achievable (ALARA) rule.

We were recently instrumental in petitioning the Nuclear Regulatory Commission to similarly revise their regulations in 10 CFR Part 20 that are based on LNT. These petitions [Docket Nos. PRM–20–28, PRM–20–29, and PRM–20–30; plus NRC–2015–0057] are currently under review.

Unintended and unanticipated consequences of the mistakenly assumed "conservative" approach to risk assessment has led to the following:

- Casualties in Fukushima: Urgent evacuation of the Fukushima area and its prolongation following the 2011 nuclear power plant accidents caused more than 1,650 deaths with no recognizable benefit. More than 100,000 people remain displaced for no reason.[9] There were no radiation casualties from the Fukushima accidents, even under almost unimaginable damage conditions.
- Higher costs: Ratcheting up of onerous regulations against the various uses of radiation (medical, industrial, nuclear energy, etc.) has resulted in tremendously increased costs, but no benefit.

- Suppression of nuclear energy: The use of nuclear energy to produce electricity, though it has proven the safest in terms of fatalities per amount of energy produced, has been competitively disadvantaged by low-dose-radiation-induced radiophobia and burdensome regulations arising from LNT. This has resulted in real casualties from other non-nuclear energy sources. For example, a recent natural gas explosion in local supply lines in Harlem, NY, killed 8 people and injured 70. The use of nuclear energy in lieu of gas might have prevented these casualties.
- Missed diagnoses: Many patients and doctors are now reluctant to use adequate radiation strength for proper CT scans, resulting in scans having poor image quality and making it harder to accurately read the images, all to the patients' detriment. More distressing yet, many patients refuse to undergo or allow their children to undergo medically indicated CT scans.
- Suppression of research on cancer, Alzheimer's disease, etc.: There is considerable evidence supporting the use of low-dose radiation to stimulate cancer prevention, and even an early, anecdotal suggestion that it might alleviate other major diseases like Alzheimer's. The use of the LNT model unnecessarily inhibits testing such applications. According to a conservative estimate, about 10% of current deaths from cancer can be prevented using low-dose radiation. Considering the annual worldwide cancer death toll of 7.6 million, the LNT model may be responsible for over 2,000 otherwise preventable cancer deaths every day, worldwide[10].

Why the LNT model was adopted: The LNT model was initially adopted by the Genetics Panel of the National Academy of Sciences (NAS) Biological Effects of Atomic Radiation (BEAR) I Committee in 1956. Its summary report made statements such as: *"Even very small amounts of radiation unquestionably have the power to injure the hereditary materials"* and *"there is no such figure other than zero"* (for amount of radiation that is genetically harmless). The full report was published in the *New York Times* and received huge publicity, greatly increasing and generalizing the fear of low-dose radiation.

A year later, letters exchanged among the committee members included statements such as: *"I, myself, have a hard time keeping a straight face when there is talk about genetic deaths and the tremendous dangers of irradiation"; "Let us be honest with ourselves—we are both interested in genetics research, and for the sake of it, we are willing to stretch a point when necessary"*; and *"Now, the business of genetic effects of atomic energy has produced a public scare, and a consequent interest in and recognition of importance of genetics. This is to the good, since it will make some people read up on genetics who would not have done so otherwise, and it may lead to the powers-that-be giving money for genetic research which they would not give otherwise."*[11] These committee-member exchanges are highly informative, demonstrating that the adoption of the LNT model was not about any putative danger of low-dose radiation, but rather supportive of their own self-interests.

Why the LNT model persists: The LNT model has resulted in financial support for the advisory committees (such as the ICRP, NCRP, etc.) and other individuals and organizations that cater to public fears in an amplifying and self-fulfilling feedback loop. Considering the dubious reason for the initial adoption of the LNT model (i.e., self-interest of committee members), similar motivation for its continuation cannot be ruled out. As evidence, the advisory committees have failed to allay concerns about low-dose radiation even after observing the above-mentioned negative impacts (and no benefit) from the use of the LNT model, and in spite of the evidence for the cancer-preventive effect of low-dose radiation, which they continue to ignore. Self-interest is still manifest, and they will not voluntarily discontinue use of LNT.

One might ask: if there is compelling evidence against the LNT model and the advisory bodies have ignored it, why don't scientists point this out, and push the advisory bodies to do the right thing? In

fact, many scientists have done this, but their writings get ignored or dismissed by the advisory committees. Such writings also receive little coverage by popular media as they are not sensational, in contrast to the advisory committee reports and articles that claim cancers from the smallest amounts of radiation.

Why it is important to abandon the unscientific LNT model:

- The LNT model is not justifiable as it is based on the disproven concepts: even a small amount of radiation increases mutations, and mutations cause cancer.
- The somatic mutation model of cancer is not valid, as it completely ignores the role of the immune system in removing cancerous cells. Low-dose radiation does not increase but decreases overall mutations because of the biological adaptive response of increased defenses.
- Suppression of the immune system contributes to the appearance of cancer. Low-dose radiation boosts the immune system, and so would reduce cancers.
- There is plenty of evidence for a threshold or radiation hormesis (beneficial effect) and against the LNT model, including the Life Span Study data and radon versus lung cancer data.
- Publications supporting the LNT model have been shown to contain major scientific flaws, as shown herein.
- There have been many major adverse consequences from the application of the LNT model that have been detrimental to human health and the environment.

Conclusions:

LNT-based radiophobia fuels needless evacuations, results in extraordinary environmental cleanup costs, inspires avoidance of life-saving medical procedures, produces pressure to lower the diagnostic quality of radiation-related medical imaging, and promotes nuclear fear. Considerations of the basic sciences of biology, physics, chemistry, and other natural sciences should be either the source or the final arbiter of scientific hypotheses about ionizing radiation. Epidemiological studies that identify associations with disease do not prove causation. Many of the key studies often referenced in support of the LNT suffer scientific flaws[1], that ignore the manifold findings of those basic sciences and make their conclusions based on the precautionary principle (rather than the precautionary approach) that radiation exposure must be proven safe for it to be considered safe. This is an impossible task and not consistent with sound scientific principles. . Failure to take proven biological reality into account leads to counterproductive statistical exercises, sometimes fraught with numerous errors. It further leads to the appearance of erudition purely through mathematical complexity. These studies are not benign; they do not err on the safe side; and they have deadly consequences.

Thus, we ask that the EPA's risk-based radiation regulations be revised as above, as soon as possible.

Sincerely yours,
Mark Miller, Certified Health Physicist, et. al.

Copy to: USEPA Headquarters
Sarah Dunham, Acting Assistant Administrator
Office of Air and Radiation
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
Mail Code 6201A
Washington, DC 20460

USEPA Headquarters
Mr. Barry Breen, Acting Assistant Administrator
Office of Land and Emergency Management
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
Mail Code 5101T
Washington, DC 20460

References

1. *Epidemiology Without Biology: False Paradigms, Unfounded Assumptions, and Specious Statistics in Radiation Science (DOI 10.1007/s13752-016-0244-4)*
2. *Radiation Risk in Perspective* – Position Statement of the Health Physics Society - PS 010-3
3. *Uncertainty in Risk Assessment*, HPS Position Statement -PS 008-2
4. The threshold versus LNT showdown: Dose rate findings exposed flaws in the LNT mode, part 1. The Russell-Muller debate.(Environ Res. 017 Jan 18. p. ii: S0013-9351(16)30933-1. DOI: 10.1016/j.envres.2016.12.006)
5. EPA Carcinogen Assessment Guidelines, 2005, and the EPA co-sponsored BEIR VII Study, 2006
6. Studies of the Mortality of Atomic Bomb Survivors, Report 14, 1950–2003: An Overview of Cancer and Noncancer Diseases , plus Errata.
7. Doss M. Linear No-Threshold Model vs. Radiation Hormesis Dose Response. 2013.
8. Doss M, Egleston BL, Litwin S. *"Studies of the mortality of atomic bomb survivors, report 14, 1950-2003: an overview of cancer and non-cancer diseases"*
9. Scott BR and Dobrzyński L. 2012. Dose-Response 10:462-466 – *Special Issue Introduction.*
10. Correcting Systemic Deficiencies in our Scientific Infrastructure, M.Doss, Dose-Response, 12:185–201, 2014.
11. The Genetics Panel of the NAS BEAR I Committee (1956): epistolary evidence suggests self-interest may have prompted an exaggeration of radiation risks that led to the adoption of the LNT cancer risk assessment model

Note: All signers of this Memo are members or associate members of SARI (Scientists for Accurate Radiation Information, http://radiationeffects.org/). The above Comment represents the professional opinions of the signers, and does not necessarily represent the views of their affiliated institutions.

S.A.R.I. Scientists for Accurate Radiation Information

Additional Signatories

Rod Adams, M.S.
Atomic Insights LLC

Wade W. M. Allison, M.A., D. Phil
Emeritus Professor of Physics, University of Oxford, United Kingdom

Dr. Joseph John Bevelacqua, President
Bevelacqua Resources http://bevelacquaresources.com/
343 Adair Drive, Richland, WA 99352 email: (b) (6)

Madhava Bhat, Chief Physicist, Adelaide Radiotherapy Centre www.adradcentre.com.au
Adjunct Lecturer, University of Adelaide
352 South Terrace, Adelaide Australia 5000
Genesis Care email: mbhat@adradcentre.com.au

John Cardarelli, PhD, CHP, CIH, PE, RSO
Health Physicist
US PHS Officer detailed to the EPA

Bruce W. Church, M.S.
BWC Enterprises, Inc.

Mervyn Cohen MD, MBChB
Emeritus Chairman of Radiology. Indiana University

Gwyneth Cravens
Author and 2015 National Awardee of the National Museum of Nuclear Science and History

Jerry M Cuttler, D.Sc.
Cuttler & Associates
1104-11 Townsgate Drive
Vaughan, ON, Canada

Ludwik Dobrzynski, Professor of Physics, D.Sc.
National Center for Nuclear Research, 05-400 Otwock, A. Soltana 7, Poland

Mohan Doss, Ph.D.
Associate Professor, Fox Chase Cancer Center

Vincent J. Esposito, D.Sc.
Adjunct Professor, University of Pittsburgh

Ludwig E. Feinendegen, M.D.
Heinrich-Heine University, Dusseldorf, Germany
Visiting Professor, Brookhaven National Laboratories

S.A.R.I. Scientists for Accurate Radiation Information

Alan Fellman, Ph.D., C.H.P.
Dade Moeller, an NV5 Company

Christopher Feltham, M. B., Ch. B., FRANZCR (retired)
Nelson, New Zealand email: (b) (6)
Steven R. Frey, *Certified Health Physicist*
1412 Pine Crest Drive, South Williamsport, PA 17702-7024

Robert Hargraves, Ph. D. Email: rhargraves@thorconpower.com
Author, *THORIUM: Energy Cheaper than Coal*
Hanover, NH

Jerome M. Hauer Ph.D, M.H.S.
Visiting Scholar, Defence Academy of the United Kingdom
Adjunct Professor
The Center for Security Studies
Edmund A. Walsh School of Foreign Service
Georgetown University

Gary L. Hoe, P.E., M.S.E.E.
(b) (6)

Marek K. Janiak, Professor of Hygiene and Epidemiology,
Military Institute of Hygiene and Epidemiology, Warsaw, Poland

Jeffrey Mahn
(b) (6)
Email: (b) (6)

Carol S. Marcus, Ph.D, MD
Professor of Radiation Oncology, Molecular and Medical Pharmacology, & Radiological Sciences
David Geffen School of Medicine, University of California at Los Angeles

Mark Miller
(b) (6)
Email: (b) (6)

SMJ Mortazavi, Ph.D
Visiting Scientist,
Fox Chase Cancer Center,
Philadelphia, PA, USA
Tel: (b) (6)
Email: (b) (6)

Charles Pennington, M.S., M.B.A.
Alpharetta, GA 30022
Executive Nuclear Energy Consultant

Jeffrey Philbin
Sandia National Laboratories, retired

Ted Quinn, President, Technology Resources
Past-President, the American Nuclear Society
Chair, Ohio State University's Nuclear Engineering Program Advisory Board
Convenor, IEC SC45A WGA9

Dr. C. Rangacharyulu
Professor of Physics and Engineering Physics
Dept. of Physics and Engineering Physics
University of Saskatchewan
Saskatoon, SK,
Canada, S7N 5E2

Bill Sacks, PhD, MD (retired)
FDA Center for Devices and Radiological Health

Charles L. Sanders, Ph.D.
[redacted] (b) (6) e
[redacted] 8

Shizuyo Sutou, Ph.D.
Prof. Emeritus
Shujitsu University, Okayama, Japan

Michael G. Stabin, Ph.D, C.H.P. e-mail: michael.g.stabin@vanderbilt.edu
Associate Professor of Radiology and Radiological Sciences www.doseinfo-radar.com
Department of Radiology and Radiological Sciences, Vanderbilt University
1161 21st Avenue South, Nashville, TN 37232-2675

Prof. Dr Andrzej Strupczewski
Chairman of Nuclear Safety Commission
National Centre for Nuclear Research
05-400 Swierk POLAND

Alan E. Waltar, Ph.D.
Past President, American Nuclear Society

UNITED STATES OFFICE OF
GOVERNMENT ETHICS

RECEIVED
2017 MAR 13 PM 12:54
OFFICE OF THE
EXECUTIVE SECRETARIAT

March 7, 2017

The Honorable E. Scott Pruitt
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Mr. Pruitt:

The U.S. Office of Government Ethics (OGE) has completed its review of the U.S. Environmental Protection Agency's ethics program. The primary objective of a program review is to identify and report on the strengths and weaknesses of an ethics program by evaluating (1) agency compliance with ethics requirements as set forth in relevant laws, regulations, and policies and (2) ethics-related systems, processes, and procedures for administering the program.

The report on the results of OGE's program review is enclosed. If you have questions or would like to discuss this report, please contact me at 202-482-9224.

Sincerely,

Dale A. Christopher, Jr.
Deputy Director for Compliance

Enclosure

1201 NEW YORK AVE NW · SUITE 500 · WASHINGTON DC · 20005

UNITED STATES OFFICE OF
GOVERNMENT ETHICS

Compliance Division

Ethics Program Review

U.S. Environmental Protection Agency

Report No. 17-16
March 2017

1201 NEW YORK AVE NW • SUITE 500 • WASHINGTON DC • 20005

Contents

Objectives, Scope, and Methodology 2
Agency Background 3
Program Administration 4
Financial Disclosure 5
Education and Training 9
Advice and Counseling 11
Agency-Specific Ethics Rules 11
Conflict Remedies 12
Enforcement 13
Special Government Employees 13

Objectives, Scope and Methodology

Objectives: OGE provides overall leadership and oversight of the executive branch ethics program designed to prevent and resolve conflicts of interest. The Ethics in Government Act gives OGE the authority to evaluate the effectiveness of executive agency ethics programs.[1] OGE uses this evaluation authority largely to conduct reviews of agency ethics programs. The purpose of a review is to identify and report on the strengths and weaknesses of an ethics program by evaluating (1) agency compliance with ethics requirements as set forth in relevant laws, regulations, and policies and (2) ethics-related systems, processes, and procedures for administering the program.

Scope: OGE's review focused on the ethics program of the U.S. Environmental Protection Agency (EPA) headquarters, which includes the Office of the Administrator and 12 other main headquarters offices. Specifically, OGE evaluated the performance of the program at 24 individual offices under 6 main offices at headquarters.[2] The offices reviewed are listed in Table 1 below.

Methodology: To assess the EPA headquarters ethics program, OGE examined a variety of documents including the EPA response to OGE's 2015 Annual Agency Ethics Program Questionnaire, written procedures for administering the program, samples of public and confidential financial disclosure reports filed in 2015, ethics training materials, and a sample of the ethics advice and counseling provided to employees. OGE also met with agency officials to clarify the information gathered, follow up on issues identified during the review, and discuss ethics program operations in further detail.

[1] *See* title IV of the Ethics in Government Act, 5 U.S.C. app. § 402 and 5 C.F.R. part 2638.
[2] In order to further evaluate EPA's ethics program, OGE intends to conduct reviews at select EPA regional offices later in calendar year 2017.

Table 1. EPA Offices Reviewed

Main Headquarters Offices	Offices within Main Headquarters Offices
Office of the Administrator (OA)	Immediate Office (IO) Office of Public Engagement and Environmental Education (OPEEE) Office of Homeland Security (OHS) Office of Congressional and Intergovernmental Relations (OCIR) Office of Public Affairs (OPA) Office of Sustainable Communities in the Office of Policy (OP/OSC) Office of Small Business Programs (OSBP) Science Advisory Board (SAB)
Office of Air and Radiation (OAR)	Office of Atmospheric Programs (OAP) Office of Air Quality Planning and Standards (OAQPS) Office of Radiation and Indoor Air (ORIA)
Office of Land and Emergency Management (OLEM)	Office of Brownfields and Land Revitalization (OBLR) Office of Resource Conservation and Recovery (ORCR) Office of Superfund Remediation and Technology Innovation (OSRTI)
Office of Enforcement and Compliance Assurance (OECA)	Office of Criminal Enforcement, Forensics and Training (OCEFT) Office of Federal Activities (OFA) Office of Site Remediation Enforcement (OSRE)
Office of Chemical Safety and Pollution Prevention (OCSPP)	Office of Pesticides Program (OPP) Office of Science Coordination and Policy (OSCP)
Office of Research and Development (ORD)	Immediate Office (IOAA) Western Ecology Division of the National Health and Environmental Effects Research Laboratory (NHEERL/WED) Water Supply and Water Resources Division of the National Risk Management Research Laboratory (NRMRL/WSWRD) Office of the Science Advisor (OSA) Office of Science Policy (OSP)

Agency Background

EPA is headed by a presidentially appointed, Senate-confirmed (PAS) Administrator who is supported by a Deputy, 5 Associates, 12 Assistants (including the positions of General Counsel, Inspector General, and Chief Financial Officer), and 10 Regional Administrators. EPA has approximately 15,000 employees. The mission of the EPA is to protect human health and the environment.

Program Administration

EPA's ethics program is managed overall by the Office of General Counsel (OGC). The Principal Deputy General Counsel is the Designated Agency Ethics Official (DAEO). The Senior Counsel for Ethics is the Alternate DAEO (ADAEO) and, effective December 2016, supervises the EPA ethics office and oversees the day-to-day operations of the ethics program. The ADAEO is assisted by a staff of one full-time and two part-time ethics officials and, since December 2016, is assisted by an additional full-time ethics official who was appointed to a two-year term. The DAEO, ADAEO and the ethics officials in OGC, taken together, are designated as 'OGC Ethics' and will be referred to as such throughout this report.

OGC Ethics provides ethics guidance and programmatic oversight to more than 100 deputy ethics officials located throughout the Agency, both at headquarters and regional offices. In addition, the office is responsible for administering the public financial disclosure system EPA-wide, creating and delivering training, maintaining the ethics intranet site, and providing all other ethics services directly to OGC and to select offices in the Office of the Administrator.

Each main office within headquarters has a Deputy Ethics Official (DEO), sometimes assisted by an Assistant DEO (ADEO), who has been delegated the responsibility of administering most elements of the ethics program for that office. These elements include managing the confidential financial disclosure system, distributing and tracking ethics training, advising employees on the ethics rules, approving outside activities, and providing ethics services to the special Government employees (SGEs).[3]

In order to fulfill its responsibilities, OGC Ethics engages in a variety of activities, including:

- DEO Ethics Training- OGC Ethics prepares and makes available the DEO Training course, a web-based course designed to help DEOs and ADEOs in carrying out their ethics-related duties.

- Monthly Meetings with DEOs and ADEOs- OGC Ethics hosts monthly meetings for EPA DEOs and ADEOs to discuss ethics issues and programmatic concerns.

- Ethics Training Material- OGC Ethics prepares and distributes the initial ethics orientation and online annual ethics training materials for use by all EPA offices.

- National Ethics Program Tracker Database- OGC Ethics created the National Ethics Program Tracker Database to assist ethics officials in maintaining an ethics file for each employee. The database allows ethics officials to track employee completion of initial ethics orientation and annual ethics training, the status of confidential financial disclosure reports and outside activity requests, and other related ethics documents, such as waivers and recusals.

[3] Despite being ultimately responsible for the EPA ethics program, the DAEO does not have supervisory authority over the majority of DEOs or ADEOs.

- Assistance Visits- OGC Ethics visits individual EPA offices to provide assistance in the management of the ethics program.

- Counseling and Training as needed- OGC Ethics provides ethics advice and counseling and specialized training directly to employees, managers, DEOs and ADEOs throughout headquarters, the regions, and laboratories.

- Self-Assessments- OGC Ethics included a voluntary survey at the end of the online annual ethics training it provided in 2015. Among other things, employees were asked to rate the training and provide feedback on the ethics topics about which they would like more information. The majority of the respondents (69%) rated the training as very good or excellent.

Ethics Program Staffing Concerns

As noted above, OGC Ethics--the EPA headquarters ethics office--currently consists of the DAEO, the ADAEO, and two full-time and two part-time ethics officials. While DEOs assist in administering portions of the ethics program throughout the agency, OGE is concerned that OGC Ethics may be insufficiently staffed to ensure the long-term effectiveness of EPA's ethics program. At the very least, OGE is concerned that at current staffing levels, OGC Ethics may not be able to absorb the impact of any staffing changes, such as medical leave or retirement, or any unforeseen events. Additional responsibilities or priorities may stretch existing resources even further. Moreover, the effective administration of certain elements of the ethics program relies largely on the competency of the DEOs who are not directly supervised by OGC Ethics. Again, OGE is concerned that OGC Ethics staffing may be insufficient to provide the DEOs with continuous oversight and necessary guidance and training.

Financial Disclosure

Title I of the Ethics in Government Act requires that agencies administer public and confidential financial disclosure systems. Financial disclosure serves to prevent, identify, and resolve conflicts of interest by providing for a systematic review of the financial interests of officers and employees. The financial disclosure process also offers an opportunity for ethics officials to provide ethics-related counseling to report filers.

To evaluate EPA's financial disclosure systems, OGE evaluated the required written procedures for administering the systems and a sample of public and confidential financial disclosure reports that were required to be filed at EPA Headquarters in 2015. OGE evaluated the selected samples for timeliness of filing, review, and certification, as well as for the overall quality of review.

Financial Disclosure Written Procedures

Each executive branch agency must establish written procedures for collecting, reviewing, evaluating, and where applicable, making publicly available financial disclosure

reports filed by the agency's officers and employees.[4] At the time of OGE's review, EPA had not updated its formal written procedures for its public financial disclosure system to address its migration to *Integrity*, the OGE-developed, executive branch-wide electronic filing system. EPA, an early adopter, had assisted OGE in pilot testing the initial *Integrity* roll-out. During the review, OGE provided OGC Ethics with samples of written procedures to assist in updating EPA's procedures. Subsequently, OGC Ethics finalized and provided OGE with a copy of written procedures for the administration of its public financial disclosure system, dated October 2016.

With regard to the confidential financial disclosure procedures, EPA Ethics Advisory 2009-02 covers the administration of the confidential disclosure system and EPA Ethics Advisory 2008-02 covers the collection and review of EPA Form 3110-48, which is an OGE-approved alternative financial disclosure form filed by EPA special Government employees (SGE).

Administration of the Public Financial Disclosure System

OGC Ethics is responsible for the administration of the EPA public financial disclosure system agency-wide and uses its Form 278 Tracker database as well as *Integrity* to assist in managing the program. Each year, OGC Ethics collects, reviews, and certifies over 400 public financial disclosure reports.

Collection and Review of Public Financial Disclosure Reports

In 2015, EPA was in the midst of implementing the executive branch-wide filing system, *Integrity*, for public reports of Presidential nominees and appointees to positions requiring Senate confirmation (PAS). Beginning in January 2016, all EPA public filers were required to file through *Integrity* unless there was an exceptional circumstance (e.g., the filer was terminating government service in 2016). As noted above, all public reports are reviewed and certified by OGC Ethics.

OGE's Examination of Public Financial Disclosure Reports

To evaluate the timeliness of public financial disclosure filing and certification, OGE examined a sample of 25 new entrant, 25 annual, and 26 termination reports that were required to be filed at EPA in 2015. Table 2 below depicts the results of OGE's review.

[4] *See* Section 402(d)(1) of the Ethics in Government Act.

Table 2. OGE's Examination of Public Financial Disclosure Reports

	New Entrant		Annual		Termination		Total	
Reports Examined	25		25		26		76	
Filed Timely	20	(80%)	21	(84%)	21	(81%)	62	(82%)
Certified Timely	23	(92%)	20	(80%)	26	(100%)	69	(91%)

As indicated in Table 2 above, the vast majority of the public reports OGE examined were filed and certified timely. In addition, based on OGE's examination, it appears that OGC Ethics officials conducted a thorough review of the reports. For example, the report files contained notes from ethics officials documenting their requests for additional information from filers. Additionally, ethics officials routinely provided cautionary letters to filers to address potential conflicts of interest identified during ethics officials' review of the reports.

Administration of the Confidential Financial Disclosure System

DEOs and ADEOs collect, review, and certify the confidential reports for their respective offices. In 2015, approximately 8,200 confidential reports were filed EPA-wide. EPA utilizes the National Ethics Program Tracker Database (NEPT) to administer the confidential financial disclosure system. NEPT alerts confidential filers of their filing requirement and notifies them when their completed reports are received by ethics officials. NEPT is available for use by all DEOs; however, its use is not mandatory and some offices have chosen to use their own tracking systems.

Collection and Review of Confidential Financial Disclosure Reports

DEOs and ADEOs collect the paper confidential financial disclosure reports and are responsible for retaining them as appropriate. OGE found that some offices kept the confidential reports beyond the-six year retention period.

Recommendation

1. Ensure that confidential financial disclosure reports are not maintained beyond the six-year retention period.

OGE's Examination of Confidential Financial Disclosure Reports

Confidential reports generally undergo an intermediate review by the ADEOs and are then are certified by the DEOs at the filers' respective offices.[5] To evaluate the confidential financial disclosure system at EPA headquarters, OGE examined a sample of 32 new entrant and 195 annual reports that were required to be filed in 2015 by headquarters employees. Tables 2.1 and 2.2 below depict the results of OGE's examination.

[5] Some offices, such as OGC and ORD's Office of Science Policy, do not conduct an intermediate review.

This change is of particular note for EPA because 31 of the reports that OGE counted as having received timely certification did not have a signature or date in the "Signature and Title of Agency's Final reviewing Official" field. These reports would be considered to have been uncertified under the new standard specified in the re-issued Confidential Financial Disclosure Guide.[7] Consequently, OGE reminds EPA that certifying officials must now sign and date using the "Signature and Title of Agency's Final reviewing Official" field of the OGE Form 450 in order to properly certify the report.

Finally, OGE's examination of the sample of confidential reports found that the review of the reports by DEOs and ADEOs requires improvement. OGE found that 114 out of 227 confidential reports had at least 1 technical reporting error.

Recommendations

2. Ensure that new entrant confidential reports are filed timely.

3. Ensure that all confidential reports are certified timely.

4. Implement corrective action to improve the review of confidential reports in order to eliminate technical errors.

As noted previously, EPA's program is decentralized and, as such, the collection, review, and certification of the confidential reports has been delegated to DEOs and ADEOs at the individual EPA offices. The DEOs and ADEOs carry out this responsibility as an ancillary duty. While OGC Ethics acknowledged its ultimate responsibility to oversee the administration of the confidential system, the investment of more time and energy into directing the DEOs and ADEOs on how to carry out their obligations will necessarily come at the expense of something else. With this in mind, OGE again expresses its concern regarding the seemingly insufficient staffing of OGC Ethics.

Education and Training

An ethics training program is essential to raising awareness among employees about the ethics laws and rules that apply to them and the availability of agency ethics officials to provide ethics counseling. Each agency's ethics training program is required to include at least an initial ethics orientation for all new employees and annual ethics training for covered employees.[8]

To meet initial ethics orientation (IEO) requirements, all new agency employees must receive ethics official contact information along with the following material within 90 days of beginning work: (1) the Standards of Conduct for Employees of the Executive Branch (Standards of Conduct) and any agency supplemental standards of conduct to keep or review; or (2) summaries of the Standards of Conduct, any agency supplemental standards of conduct, and the

[7] These reports consisted of all new entrant reports OGE examined from OAR's Office of Atmospheric Programs, all annual reports from OCSPP's Office of Science Coordination and Policy, and 9 out of the 10 annual reports OGE examined from OA's Office of Sustainable Communities in the Office of Policy.
[8] *See* 5 C.F.R. §§ 2638.704 and 705 for definition of covered employees.

Principles of Ethical Conduct (Principles) to keep. Employees must receive one hour of official duty time to review the material.[9]

To meet the annual ethics training requirements, covered employees must receive annual training consisting of a review of: (1) the Principles; (2) the Standards of Conduct; (3) any agency supplemental standards of conduct; (4) the criminal conflict of interest statutes; and (5) ethics official contact information. Training length and delivery method may vary by an employee's financial disclosure filing status.[10]

Initial Ethics Orientation

To meet the initial ethics orientation requirement, an OGC Ethics official attends the headquarters new employee orientation, which that is typically held every two weeks, to provide a brief ethics presentation. The OGC Ethics official also provides the new employees a brochure with ethics officials' contact information and references to ethics resources on the EPA intranet. The OGC Ethics official also directs employees to take the online course, "Essential Ethics for New EPA Employees." This course covers the Standards of Conduct, the Principles, the criminal conflict of interest statutes, and EPA's supplemental standards of conduct.

Deputy Ethics Officials track completion of the online initial ethics orientation course through a database that generates certificates upon completion. EPA reported that in 2015, 94% of the employees required to receive initial ethics orientation had received it within 90 days of being hired.

Annual Ethics Training

EPA provided its public and confidential financial disclosure report filers with one hour of official time to complete an online training course titled, "Other People's Money: Fundraising" to meet their annual ethics training requirement in 2015. OGE determined that this course met the regulatory requirements for annual training.

EPA uses its online database to record completion of annual ethics training. For 2015, EPA reported that 10,694 (99%) of 10,737 covered employees received annual training.

Additional Training

EPA periodically provides ethics training beyond the required initial ethics orientation and annual ethics training. For example, approximately every two years, EPA hosts an SES Forum in the Washington, DC area for all of its senior leaders. Included in the event is a one-hour ethics presentation conducted by OGC Ethics.

Additionally, EPA provides a variety of post-employment training for departing employees. For example, the ADAEO routinely provides post-employment briefings to political appointees who are leaving government service. OGC Ethics has also developed an online

[9] *See* 5 C.F.R. § 2638.703.
[10] *See* 5 C.F.R. §§ 2638.704 and 705.

training course titled, "Leaving the Federal Service." Finally, OGC Ethics distributes to departing employees "Departure Guides" that cover post-employment restrictions and ethics obligations they should consider when seeking employment.

Advice and Counseling

The DAEO is required to ensure that a counseling program for agency employees concerning ethics and Standards of Conduct matters, including post-employment matters, is developed and conducted.[11] The DAEO may delegate to one or more deputy ethics officials the responsibility for developing and conducting the counseling program.[12]

OGC Ethics provides advice to appointees, nominees, and public filers. OGC Ethics also provides advice to DEOs, ADEOs, managers and employees. DEOs and ADEOs provide advice and counseling to their employees but, especially in headquarters, consult with OGC Ethics.

According to the ADAEO, OGC Ethics receives dozens of ethics-related questions each week. She added that her office makes every effort to provide helpful, creative, and customer oriented advice in response to the questions.

To evaluate OGC Ethics' advice and counseling program, OGE reviewed a sample of the guidance provided in 2015, which addressed conflicts of interest, gifts, attendance at widely attended gatherings, outside activities, EPA's supplemental standards, impartiality, and post-government employment. OGE determined that this guidance was provided timely and was accurately supported with references and citations to statutory and regulatory criteria.

Agency-Specific Ethics Rules

An agency may modify or supplement the Standards of Conduct, with the concurrence of OGE, to meet the particular needs of that agency.[13] A supplemental standards of conduct regulation is issued jointly by the agency and OGE and is published in title 5 of the Code of Federal Regulations.

EPA has supplemental standards of conduct[14] which prohibit employees from designated offices or who perform certain functions from having outside employment with or holding certain financial or other interests in particular companies, industries, or operations.[15] EPA's supplemental standards of conduct also requires employees to receive approval from their DEO before engaging in outside employment that involves:

- consulting services;
- the practice of a profession as defined in the Standards of Conduct;
- holding State or local public office;

[11] *See* 5 C.F.R. § 2638.203.
[12] *See* 5 C.F.R. § 2638.204.
[13] *See* Executive Order 12674 and 5 C.F.R. § 2635.105.
[14] *See* 5 C.F.R. part 6400.
[15] According to the Alternate DAEO, these provisions currently apply to only two EPA offices: the Office of Mobile Sources and the Office of Pesticide Programs.

- subject matter that deals in significant part with the policies, programs or operations of EPA or any matter to which the employee presently is assigned or to which the employee has been assigned during the previous one-year period; or
- the provision of services to or for an EPA contractor or subcontractor, the holder of an EPA assistance agreement or sub agreement, or a firm regulated by the EPA office or region in which the employee serves.

OGE's examination of the sample of financial disclosure reports did not reveal any filers holding financial interests prohibited by the EPA's supplemental standards of conduct. Additionally, as part of its review of EPA's advice and counseling program, OGE identified several written approvals for employees to engage in outside employment activities. These approvals appeared to be granted in compliance with the requirements of EPA's supplemental standards. Furthermore, OGE identified 31outside employment activities disclosed in the public financial disclosure reports OGE examined to determine whether the approvals were documented. Of the 31 activities, only 6 were of a nature that would require prior approval under EPA's supplemental standards of conduct. In all six cases, OGE verified that ethics officials had provided approval documentation for them.

OGC Ethics officials indicated that it is rare that an outside activity is not approved. EPA's supplemental regulations do not include any outright prohibitions of outside activity for any type of profession or employee. When ethics officials identify an outside activity on a public financial report, they advise employees about the ethics implications, such as misuse of position and representational conflicts of interest, and encourage them to formally request approval from the employee's DEO if the approval documentation is not available during the review of the report.

Conflict Remedies

The criminal conflict of interest law prohibits an employee from participating in an official capacity in a particular matter in which he or she has a financial interest.[16] Congress included two provisions that permit an agency to issue a waiver of this prohibition in individual cases. Agencies must consult with OGE, where practicable, prior to issuing such a waiver.[17] In 2015, OGC Ethics issued four waivers and consulted with OGE on each one.

Additionally, the Ethics in Government Act expressly recognizes the need for PAS nominees to address actual or apparent conflicts of interest by requiring written notice of the specific actions to be taken in order to alleviate the conflict of interest,[18] commonly known as an "ethics agreement." There was no need to for an EPA PAS nominee to enter into an ethics agreement during 2015.

[16] *See* 18 U.S.C. § 208.
[17] *See* Executive Order 12674.
[18] *See* 5 U.S.C. app. § 110.

Enforcement

For 2015, EPA reported no disciplinary actions based wholly or in part upon violations of the criminal conflict of interest statutes. However, EPA reported eight actions based on violations of the Standards of Conduct.

EPA's Office of Inspector General (OIG) conducts investigations of potential violations of the criminal conflict of interest statutes and makes any necessary referrals to the Department of Justice (DOJ). OIG concurrently notifies OGE of any such referrals. In 2015, EPA referred three violations to DOJ and OGE received concurrent notification in each case.

Special Government Employees

A special Government employee (SGE) is an officer or employee of the executive or legislative branch retained, designated, appointed, or employed to perform official duties, full-time or intermittently, for not more than 130 days in any 365-day period.[19] SGEs generally serve as members of Federal Advisory Committee Act (FACA) committees or as individual experts and consultants. EPA utilizes the services of both types of SGEs. As part of this review, OGE evaluated the ethics services provided to both types of SGEs.

FACA Committee SGEs

EPA maintains 22 FACA committees. OGE evaluated the ethics services provided to SGE members of a sample of 9 committees, consisting of:

Two Office of the Administrator committees

- OPEEE's National Environmental Education Advisory Council (OPEEE/ NEEAC)
- Science Advisory Board and the Clean Air Scientific Advisory Committee (SAB/CASAC)

Two Office of Research and Development committees

- Human Studies Review Board (OSA/HSRB)
- Board of Scientific Counselors Federal Advisory Committee (OSP/BOSC)

One Office of Chemical Safety and Pollution Prevention committee

- Federal Insecticide, Fungicide, and Rodenticide Act Scientific Advisory Panel (FIFRA)

[19] *See* 18 U.S.C. § 202(a).

Four Science Advisory Board subcommittees

- Biogenic Carbon Emissions Panel
- Chemical Assessment Advisory Committee Augmented for Review of the Draft IRIS Benzo[a]pyrene Assessment (CAACA IRIS Benzo)
- Drinking Water Committee
- Technological Achievement Awards Committee-2015 (STAA)

OGE's review determined that six of these nine committees are effectively providing ethics services for their SGE committee members. However, improvements in the administration of the confidential financial disclosure and/or ethics training programs of three committees are required.

Confidential Financial Disclosure

In accordance with OGE's financial disclosure regulation, executive branch SGEs are required to file a new entrant confidential financial disclosure report within 30 days after their entry-on-duty date. They must also file a new financial disclosure report each year upon reappointment or re-designation. These reports must be filed before any advice is rendered by the SGE and in the case of FACA committee SGEs, before the first committee meeting.[20] In an effort to enforce these requirements, EPA requires that a FACA committee SGE must have filed a financial disclosure report within one year of a meeting date or activity.[21]

As allowed by OGE regulation,[22] FACA committee SGEs at EPA file the EPA Form 3110-48, an OGE-approved alternative financial disclosure form, in lieu of the OGE Form 450. The alternative form collects targeted financial disclosure and outside activity information most relevant for EPA to identify potential conflicts of interest among FACA committee SGEs. DEOs and ADEOs are primarily responsible for reviewing and certifying these reports, although in some instances committee Designated Federal Officers (DFOs) are also involved in the review.

To evaluate EPAs confidential financial disclosure system for FACA committee SGEs, OGE examined a sample of the reports filed at each committee included in its review. The sample of reports OGE examined were generally reviewed and certified timely. However, OGE identified deficiencies in the confidential systems at three of the committees it examined.

First, OGE could not determine the filing timeliness of the five OPEEE/NEEAC financial disclosure reports it examined because the reports did not have any indication of the date they were received at EPA. Moreover, none of these reports had been reviewed or certified. OGC Ethics officials stated that out of concern regarding the management of the committee's ethics program, they had already appointed a new DEO for OPEEE in the spring of 2016, and that new DEO is one of the OGC Ethics officials.

[20] *See* 5 C.F.R. § 2634.903(b).
[21] *See* EPA Ethics Advisory 2008-02.
[22] *See* 5 C.F.R. § 2634.905(a).

Second, at OSA/HSRB, OGE requested to examine seven EPA Forms-3110-48 required to be filed in 2015. Of the seven forms provided, only four were filed in 2015. Of the remaining three, two were filed in 2014 and one was filed in 2013. Despite their failure to file in 2015, OGE determined that that the two SGEs who filed 2014 had, at a minimum, filed within the previous 12 months of the first meeting they attended in 2015, in accordance with EPA Ethics Advisory 2008-02. However, the SGE whose most recent EPA 3110-48 was filed in December 2013 attended one meeting in late 2014 and two meetings in 2015, all three of which were more than 12 months after the report was filed.

Finally, at OSP/BOSC, OGE requested to examine eight EPA Forms-3110-48 required to be filed in 2015. However, only two of the forms provided were filed in 2015. Four forms were filed in 2014 and two were filed in 2013. OGE determined that all six the SGEs who filed in 2013 or 2014 participated in meetings in 2015 without having filed an EPA Form 3110-48 within the previous 12 months.

Ethics Training

OGE determined that the vast majority of SGEs serving on FACA committees included in OGE's review had received ethics training in 2015. However, OGE found that only 1 (20%) of 5 OPEEE/NEEAC SGEs included in OGE's review received the training in 2015. Moreover, at OSP/BOSC, only 5 (50%) of 10 filers whose financial disclosure reports were originally requested for review received ethics training.

Recommendations

5. Implement corrective action to ensure that confidential financial disclosure reports required from SGE members of OPEEE/NEEAC, OSA/HSRB and OSP/ BOSC are timely filed and certified. Also ensure that systems are in place to ensure that all FACA committee SGEs EPA-wide are timely filed and certified.

6. Implement corrective action to ensure that all SGEs serving OPEEE/NEEAC and OSP/BOSC receive ethics training. Also ensure that systems are in place to ensure that all FACA committee SGEs EPA-wide receive the required training.

Expert and Consultant SGEs

In order to evaluate the ethics services provided to non-FACA committee SGE experts and consultants, OGE identified 35 SGEs serving as experts and consultants in 3 of the Office of Research and Development (ORD) offices selected for review:

- Immediate Office (IOAA)
- Western Ecology Division of the National Health and Environmental Effects Research Laboratory (NHEERL/WED)
- Water Supply and Water Resources Division of the National Risk Management Research Laboratory (NRMRL/WSWRD)

Confidential Financial Disclosure

OGE determined that only two of the offices included in its review, NHEERL/WED and NRMRL/WSWRD, collected and reviewed financial disclosure reports from their SGEs. IOAA did not collect financial disclosure reports in 2015. Of the 3 reports OGE examined from NHEERL/WED, 2 (67%) were filed timely and all of the reports were certified timely. However, of the 4 reports examined from NRMRL/WSWRD, only 2 (50%) were filed and certified timely.

Ethics Training

None of the three ORD offices could provide evidence that ethics training was provided to their expert and consultant SGEs in 2015.

Recommendations

7. Ensure that ORD IOAA undertakes efforts in concert with OGC Ethics to strengthen the administration of the ethics services provided to its expert and consultant SGEs.

8. Ensure that all expert and consultant SGEs EPA-wide receive ethics training.

HEI

Health Effects Institute

75 Federal Street
Suite 1400
Boston, MA 02110
+1-617-488-2300
FAX +1-617-488-2335
www.healtheffects.org

March 3, 2017

Scott Pruitt
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW - MC 1102A - Room 3412
Washington, DC 20460

Dear Mr. Pruitt:

I am pleased to present you with the 2016 Health Effects Institute Annual Report *Trusted Science for Decisions*. The report focuses on how, for over 35 years, HEI has applied the most rigorous standards of independent science and intensive peer review to produce air pollution and health answers of the highest quality and credibility to inform often controversial decisions. The 2016 Annual Report describes how HEI:

- Competitively selects the best possible teams of scientists to conduct relevant and targeted research;
- Subjects that research to detailed peer review to ensure that the right approaches, statistics, and interpretation of results is applied; and
- Communicates those results in understandable terms to decision makers in the states, Washington, and around the world

The report also relates in detail HEI's latest efforts to test whether there are air pollution effects at low levels of exposure, to assess the newest fuels, engines and other energy technologies, and systematically assess the Global Burden of Disease from air.

We anticipate 2017 to be highly productive as we move to implement our *Strategic Plan 2015-2020*, to complete review and publication of our major new study of potential ozone cardiovascular effects – the *Multicenter Ozone Study of Elderly Subjects*, or *MOSES,* and to initiate new intensive studies of potential effects of exposure to traffic.

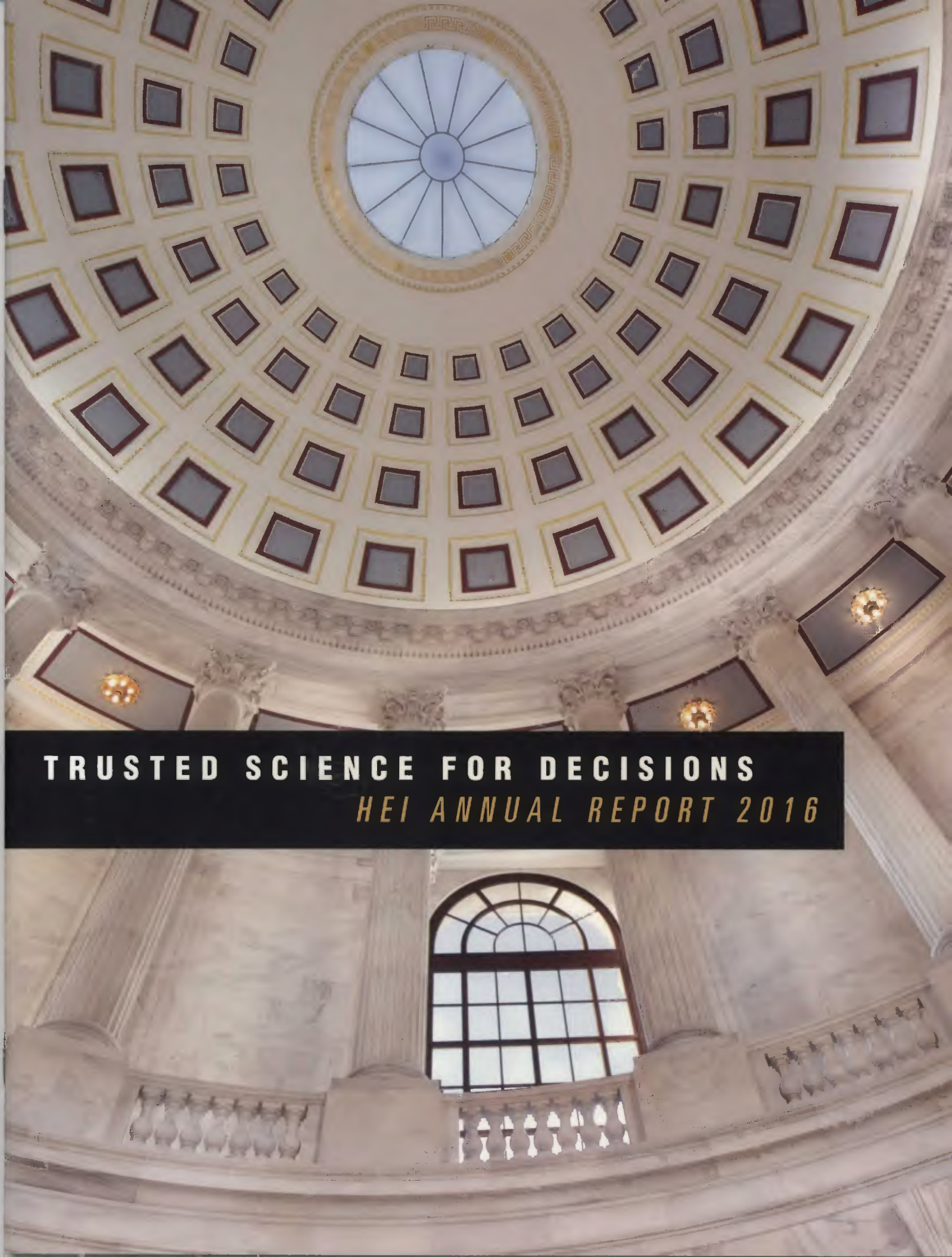
We very much appreciate your support of HEI and look forward to working with you over the coming year to ensure that we can continue to deliver trusted science for smarter decisions on clean air and health.

Sincerely,

Dan Greenbaum
President

Cc: Ryan Jackson
Mike Flynn

RECEIVED
2017 MAR 13 PM 12:53
OFFICE OF THE
EXECUTIVE SECRETARIAT



TRUSTED SCIENCE FOR DECISIONS

HEI ANNUAL REPORT 2016

HEALTH EFFECTS INSTITUTE
75 Federal Street, Suite 1400
Boston, MA 02110-1817
USA
Phone: + 1 617 488 2300
Fax: 1 617 488 2335
www.healtheffects.org

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

March 31, 2017

OFFICE OF THE
ADMINISTRATOR

The Honorable Josh Frydenberg MP
Minister for the Environment and Energy
Parliament House
Canberra ACT 2600
AUSTRALIA

Dear Minister Frydenberg:

Thank you for your kind letter of congratulations on my confirmation as Administrator of the U.S. Environmental Protection Agency. Promoting and protecting a strong and healthy environment are among the lifeblood priorities of the government. I look forward to leading the EPA in this mission.

As long-standing bilateral partners, the United States and Australia enjoy a very close collaborative relationship on a wide range of environmental, energy and economic issues. We have learned a great deal from each other, and I look forward to continuing our cooperation. I also hope to hear more about the results of your recent actions to increase regulatory efficiency and effectiveness.

I appreciate your offer of continued and enhanced partnership with the EPA, and I look forward to working with you and your team.

Respectfully yours,

E. Scott Pruitt

The Hon Josh Frydenberg MP
Minister for the Environment and Energy
Parliament House
Canberra ACT 2600
Australia

Dear Minister Frydenberg:

Thank you for your kind letter of February 19 congratulating me on my confirmation as Administrator of the United States Environmental Protection Agency. Promoting and protecting a strong and healthy environment is among the lifeblood priorities of the government. I look forward to leading EPA in this mission.

As long standing bilateral partners, the United States and Australia enjoy a very close collaborative relationship on a wide range of environmental, energy, and economic issues. There is a great deal we learn from each other through our cooperation. For example, I would welcome learning more from your recent actions to increase regulatory efficiency and effectiveness.

I appreciate your offer of continued and enhanced partnership with EPA and I look forward to working with you and your team.

Sincerely,

E. Scott Pruitt
Administrator

Jane Nishida - Approved JN 3/27/17
Acting AA/OITA

Approved w/ edits _____

Disapproved _____

Stewart, Lakita

From: Buckley, Katherine
Sent: Monday, March 27, 2017 6:50 AM
To: Revilla, Belen; Stewart, Lakita; Kasman, Mark
Cc: Doroski, Brenda; Almodovar, Lisa
Subject: RE: Administrator Response to Australia Letter

Thanks for advancing this while I was out. Could someone please send me a copy of the final, so I have it for my files and also in case needed with the Australian Embassy?

Thanks and best wishes,
Katherine

From: Revilla, Belen
Sent: Wednesday, March 22, 2017 4:50 PM
To: Stewart, Lakita <Stewart.Lakita@epa.gov>; Kasman, Mark <Kasman.Mark@epa.gov>
Cc: Dieu, Martin <Dieu.Martin@epa.gov>; Doroski, Brenda <Doroski.Brenda@epa.gov>; Buckley, Katherine <Buckley.Katherine@epa.gov>; Almodovar, Lisa <Almodovar.Lisa@epa.gov>
Subject: RE: Administrator Response to Australia Letter

YES Lakita, ..this is the final! Thanks.

****

Belén D. Revilla *(Bé)*
Office of Regional & Bilateral Affairs (ORBA)
1300 Pennslyvania Ave, NW, Suite 31135
Washington, DC 20004
Tel: 202/ 564-6421
Revilla.belen@epa.gov

From: Stewart, Lakita
Sent: Wednesday, March 22, 2017 4:38 PM
To: Kasman, Mark <Kasman.Mark@epa.gov>
Cc: Dieu, Martin <Dieu.Martin@epa.gov>; Doroski, Brenda <Doroski.Brenda@epa.gov>; Buckley, Katherine <Buckley.Katherine@epa.gov>; Almodovar, Lisa <Almodovar.Lisa@epa.gov>; Revilla, Belen <Revilla.Belen@epa.gov>
Subject: FW: Administrator Response to Australia Letter

Hi all, is this the response for AX-17-000-6216 due on 28th for the Administrator's signature? I believe so, but I attached the incoming control to be sure. Thanks!

From: Kasman, Mark
Sent: Monday, March 20, 2017 10:47 AM
To: Dieu, Martin <Dieu.Martin@epa.gov>; Doroski, Brenda <Doroski.Brenda@epa.gov>
Cc: Buckley, Katherine <Buckley.Katherine@epa.gov>; Stewart, Lakita <Stewart.Lakita@epa.gov>
Subject: Administrator Response to Australia Letter

Stewart, Lakita

From: Revilla, Belen
Sent: Wednesday, March 22, 2017 4:50 PM
To: Stewart, Lakita; Kasman, Mark
Cc: Dieu, Martin; Doroski, Brenda; Buckley, Katherine; Almodovar, Lisa
Subject: RE: Administrator Response to Australia Letter

YES Lakita, ..this is the final! Thanks.

Response
AX-6216

****

Belén D. Revilla (Bé)
Office of Regional & Bilateral Affairs (ORBA)
1300 Pennslyvania Ave, NW, Suite 31135
Washington, DC 20004
Tel: 202/ 564-6421
Revilla.belen@epa.gov

From: Stewart, Lakita
Sent: Wednesday, March 22, 2017 4:38 PM
To: Kasman, Mark <Kasman.Mark@epa.gov>
Cc: Dieu, Martin <Dieu.Martin@epa.gov>; Doroski, Brenda <Doroski.Brenda@epa.gov>; Buckley, Katherine <Buckley.Katherine@epa.gov>; Almodovar, Lisa <Almodovar.Lisa@epa.gov>; Revilla, Belen <Revilla.Belen@epa.gov>
Subject: FW: Administrator Response to Australia Letter

Hi all, is this the response for AX-17-000-6216 due on 28th for the Administrator's signature? I believe so, but I attached the incoming control to be sure. Thanks!

From: Kasman, Mark
Sent: Monday, March 20, 2017 10:47 AM
To: Dieu, Martin <Dieu.Martin@epa.gov>; Doroski, Brenda <Doroski.Brenda@epa.gov>
Cc: Buckley, Katherine <Buckley.Katherine@epa.gov>; Stewart, Lakita <Stewart.Lakita@epa.gov>
Subject: Administrator Response to Australia Letter

Hi Martin,

Here is a draft response to Australia letter of congratulations to Administrator Pruitt.

Mark

Mark S. Kasman
Director
Office of Regional and Bilateral Affairs
Office of International and Tribal Affairs
U.S. Environmental Protection Agency
1300 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

THE HON JOSH FRYDENBERG MP
MINISTER FOR THE ENVIRONMENT AND ENERGY

PDR: MB17-000058

19 FEB 2017

Administrator Scott Pruitt
Environmental Protection Agency
1200 Pennsylvania Avenue NW
Mail Code 1701A
Washington DC 20460
UNITED STATES OF AMERICA

Dear Administrator Pruitt

It is my pleasure to congratulate you on behalf of the Australian Government on your recent confirmation as Administrator of the United States Environmental Protection Agency.

In your nomination hearing on 18 January 2017, you outlined your objectives for your new role, including regulatory reform and protecting natural resources. Like the United States, Australia is committed to sound management of our land, water and air. Toward this, we are enabling communities to take practical action towards improving their environment through local Landcare initiatives.

Australia also shares the United States' desire for improved regulatory processes. We have recently undertaken a process for reducing unnecessary regulation, improving regulatory coordination between different tiers of governments, and applying our regulatory tools as efficiently and effectively as possible. This will ensure that economic development is balanced with social and environmental outcomes.

The United States is one of Australia's most important partners. There are many opportunities for us to expand our relationship and bilateral agenda, and I personally look forward to working with you to explore areas for future cooperation between our two countries.

Yours sincerely

JOSH FRYDENBERG

RECEIVED
2017 MAR 13 PM 12:53
OFFICE OF THE
EXECUTIVE SECRETARIAT

RECEIVED

2017 MAR 13 PM 12: 53

OFFICE OF THE
EXECUTIVE SECRETARIAT

Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460

Docket ID: EPA-HQ-OAR-2016-0544

Dear Sir or Madam:

As an employee in the fuels industry, I am writing today in response to EPA's proposed denial to move the point of obligation under the Renewable Fuels Standard (RFS).

I am extremely concerned about EPA's proposed denial to move the point of obligation further downstream in the fuel supply chain to rack sellers. This is a serious issue that threatens the viability of merchant refiners, such as HollyFrontier Tulsa Refining LLC in Tulsa, Oklahoma where I am employed. These refineries provide jobs and tremendous economic support to their surrounding communities. The Tulsa Refinery employs 650 people in stable, well-paying jobs, and is one of the most important contributors to our local economy. The current RFS system is punishing merchant refiners by putting us at a competitive disadvantage which is an unintended consequence of the RFS program.

Presently EPA makes refiners and importers of petroleum products responsible for certifying blending of biofuels and petroleum products regardless of their ability to physically blend, or influence blending of their finished products. The disconnect that exists by obligating refiners without consideration of their ability to blend renewable fuels is the primary flaw within the RFS program. Merchant refineries like ours in Tulsa own limited downstream infrastructure, and no retail stations. Because of this logistical reality, my company must acquire Renewable Identification Numbers (RINs) on the open market to satisfy our annual required blending requirement by EPA.

In 2016 HollyFrontier's refineries, including Tulsa, spent approximately $250 million on RIN purchases. This cost represents a greater amount than was spent on total payroll for more than 2,700 for employees like me. Simply put, these dollars do nothing to advance the goals of the RFS program, enable greater investment in our facilities, or increase wages and take home pay.

I request that the EPA act to move the Point of Obligation from refiners and importers to rack sellers which will better align ability to comply with the annual volumes mandated by EPA, and greatly reduce RIN market volatility.

Thank you for your consideration in this manner.

Sincerely,

Rusty L. Collins

Rusty L. Collins

Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460

Docket ID: EPA-HQ-OAR-2016-0544

Dear Sir or Madam:

As an employee in the fuels industry, I am writing today in response to EPA's proposed denial to move the point of obligation under the Renewable Fuels Standard (RFS).

I am extremely concerned about EPA's proposed denial to move the point of obligation further downstream in the fuel supply chain to rack sellers. This is a serious issue that threatens the viability of merchant refiners, such as HollyFrontier Tulsa Refining LLC in Tulsa, Oklahoma where I am employed. These refineries provide jobs and tremendous economic support to their surrounding communities. The Tulsa Refinery employs 650 people in stable, well-paying jobs, and is one of the most important contributors to our local economy. The current RFS system is punishing merchant refiners by putting us at a competitive disadvantage which is an unintended consequence of the RFS program.

Presently EPA makes refiners and importers of petroleum products responsible for certifying blending of biofuels and petroleum products regardless of their ability to physically blend, or influence blending of their finished products. The disconnect that exists by obligating refiners without consideration of their ability to blend renewable fuels is the primary flaw within the RFS program. Merchant refineries like ours in Tulsa own limited downstream infrastructure, and no retail stations. Because of this logistical reality, my company must acquire Renewable Identification Numbers (RINs) on the open market to satisfy our annual required blending requirement by EPA.

In 2016 HollyFrontier's refineries, including Tulsa, spent approximately $250 million on RIN purchases. This cost represents a greater amount than was spent on total payroll for more than 2,700 for employees like me. Simply put, these dollars do nothing to advance the goals of the RFS program, enable greater investment in our facilities, or increase wages and take home pay.

I request that the EPA act to move the Point of Obligation from refiners and importers to rack sellers which will better align ability to comply with the annual volumes mandated by EPA, and greatly reduce RIN market volatility.

Thank you for your consideration in this manner.

Sincerely,

Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460

Docket ID: EPA-HQ-OAR-2016-0544

Dear Sir or Madam:

As an employee in the fuels industry, I am writing today in response to EPA's proposed denial to move the point of obligation under the Renewable Fuels Standard (RFS).

I am extremely concerned about EPA's proposed denial to move the point of obligation further downstream in the fuel supply chain to rack sellers. This is a serious issue that threatens the viability of merchant refiners, such as HollyFrontier Tulsa Refining LLC in Tulsa, Oklahoma where I am employed. These refineries provide jobs and tremendous economic support to their surrounding communities. The Tulsa Refinery employs 650 people in stable, well-paying jobs, and is one of the most important contributors to our local economy. The current RFS system is punishing merchant refiners by putting us at a competitive disadvantage which is an unintended consequence of the RFS program.

Presently EPA makes refiners and importers of petroleum products responsible for certifying blending of biofuels and petroleum products regardless of their ability to physically blend, or influence blending of their finished products. The disconnect that exists by obligating refiners without consideration of their ability to blend renewable fuels is the primary flaw within the RFS program. Merchant refineries like ours in Tulsa own limited downstream infrastructure, and no retail stations. Because of this logistical reality, my company must acquire Renewable Identification Numbers (RINs) on the open market to satisfy our annual required blending requirement by EPA.

In 2016 HollyFrontier's refineries, including Tulsa, spent approximately $250 million on RIN purchases. This cost represents a greater amount than was spent on total payroll for more than 2,700 for employees like me. Simply put, these dollars do nothing to advance the goals of the RFS program, enable greater investment in our facilities, or increase wages and take home pay.

I request that the EPA act to move the Point of Obligation from refiners and importers to rack sellers which will better align ability to comply with the annual volumes mandated by EPA, and greatly reduce RIN market volatility.

Thank you for your consideration in this manner.

Sincerely,

Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460

Docket ID: EPA-HQ-OAR-2016-0544

Dear Sir or Madam:

As an employee in the fuels industry, I am writing today in response to EPA's proposed denial to move the point of obligation under the Renewable Fuels Standard (RFS).

I am extremely concerned about EPA's proposed denial to move the point of obligation further downstream in the fuel supply chain to rack sellers. This is a serious issue that threatens the viability of merchant refiners, such as HollyFrontier Tulsa Refining LLC in Tulsa, Oklahoma where I am employed. These refineries provide jobs and tremendous economic support to their surrounding communities. The Tulsa Refinery employs 650 people in stable, well-paying jobs, and is one of the most important contributors to our local economy. The current RFS system is punishing merchant refiners by putting us at a competitive disadvantage which is an unintended consequence of the RFS program.

Presently EPA makes refiners and importers of petroleum products responsible for certifying blending of biofuels and petroleum products regardless of their ability to physically blend, or influence blending of their finished products. The disconnect that exists by obligating refiners without consideration of their ability to blend renewable fuels is the primary flaw within the RFS program. Merchant refineries like ours in Tulsa own limited downstream infrastructure, and no retail stations. Because of this logistical reality, my company must acquire Renewable Identification Numbers (RINs) on the open market to satisfy our annual required blending requirement by EPA.

In 2016 HollyFrontier's refineries, including Tulsa, spent approximately $250 million on RIN purchases. This cost represents a greater amount than was spent on total payroll for more than 2,700 for employees like me. Simply put, these dollars do nothing to advance the goals of the RFS program, enable greater investment in our facilities, or increase wages and take home pay.

I request that the EPA act to move the Point of Obligation from refiners and importers to rack sellers which will better align ability to comply with the annual volumes mandated by EPA, and greatly reduce RIN market volatility.

Thank you for your consideration in this manner.

Sincerely,

Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460

Docket ID: EPA-HQ-OAR-2016-0544

Dear Sir or Madam:

As an employee in the fuels industry, I am writing today in response to EPA's proposed denial to move the point of obligation under the Renewable Fuels Standard (RFS).

I am extremely concerned about EPA's proposed denial to move the point of obligation further downstream in the fuel supply chain to rack sellers. This is a serious issue that threatens the viability of merchant refiners, such as HollyFrontier Tulsa Refining LLC in Tulsa, Oklahoma where I am employed. These refineries provide jobs and tremendous economic support to their surrounding communities. The Tulsa Refinery employs 650 people in stable, well-paying jobs, and is one of the most important contributors to our local economy. The current RFS system is punishing merchant refiners by putting us at a competitive disadvantage which is an unintended consequence of the RFS program.

Presently EPA makes refiners and importers of petroleum products responsible for certifying blending of biofuels and petroleum products regardless of their ability to physically blend, or influence blending of their finished products. The disconnect that exists by obligating refiners without consideration of their ability to blend renewable fuels is the primary flaw within the RFS program. Merchant refineries like ours in Tulsa own limited downstream infrastructure, and no retail stations. Because of this logistical reality, my company must acquire Renewable Identification Numbers (RINs) on the open market to satisfy our annual required blending requirement by EPA.

In 2016 HollyFrontier's refineries, including Tulsa, spent approximately $250 million on RIN purchases. This cost represents a greater amount than was spent on total payroll for more than 2,700 for employees like me. Simply put, these dollars do nothing to advance the goals of the RFS program, enable greater investment in our facilities, or increase wages and take home pay.

I request that the EPA act to move the Point of Obligation from refiners and importers to rack sellers which will better align ability to comply with the annual volumes mandated by EPA, and greatly reduce RIN market volatility.

Thank you for your consideration in this manner.

Sincerely,

Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460

Docket ID: EPA-HQ-OAR-2016-0544

Dear Sir or Madam:

As an employee in the fuels industry, I am writing today in response to EPA's proposed denial to move the point of obligation under the Renewable Fuels Standard (RFS).

I am extremely concerned about EPA's proposed denial to move the point of obligation further downstream in the fuel supply chain to rack sellers. This is a serious issue that threatens the viability of merchant refiners, such as HollyFrontier Tulsa Refining LLC in Tulsa, Oklahoma where I am employed. These refineries provide jobs and tremendous economic support to their surrounding communities. The Tulsa Refinery employs 650 people in stable, well-paying jobs, and is one of the most important contributors to our local economy. The current RFS system is punishing merchant refiners by putting us at a competitive disadvantage which is an unintended consequence of the RFS program.

Presently EPA makes refiners and importers of petroleum products responsible for certifying blending of biofuels and petroleum products regardless of their ability to physically blend, or influence blending of their finished products. The disconnect that exists by obligating refiners without consideration of their ability to blend renewable fuels is the primary flaw within the RFS program. Merchant refineries like ours in Tulsa own limited downstream infrastructure, and no retail stations. Because of this logistical reality, my company must acquire Renewable Identification Numbers (RINs) on the open market to satisfy our annual required blending requirement by EPA.

In 2016 HollyFrontier's refineries, including Tulsa, spent approximately $250 million on RIN purchases. This cost represents a greater amount than was spent on total payroll for more than 2,700 for employees like me. Simply put, these dollars do nothing to advance the goals of the RFS program, enable greater investment in our facilities, or increase wages and take home pay.

I request that the EPA act to move the Point of Obligation from refiners and importers to rack sellers which will better align ability to comply with the annual volumes mandated by EPA, and greatly reduce RIN market volatility.

Thank you for your consideration in this manner.

Sincerely,

RECEIVED

2017 MAR 13 PM 3:39

OFFICE OF THE
EXECUTIVE SECRETARIAT

(b) (6)

March 6, 2017

Dear Chief Pruitt,

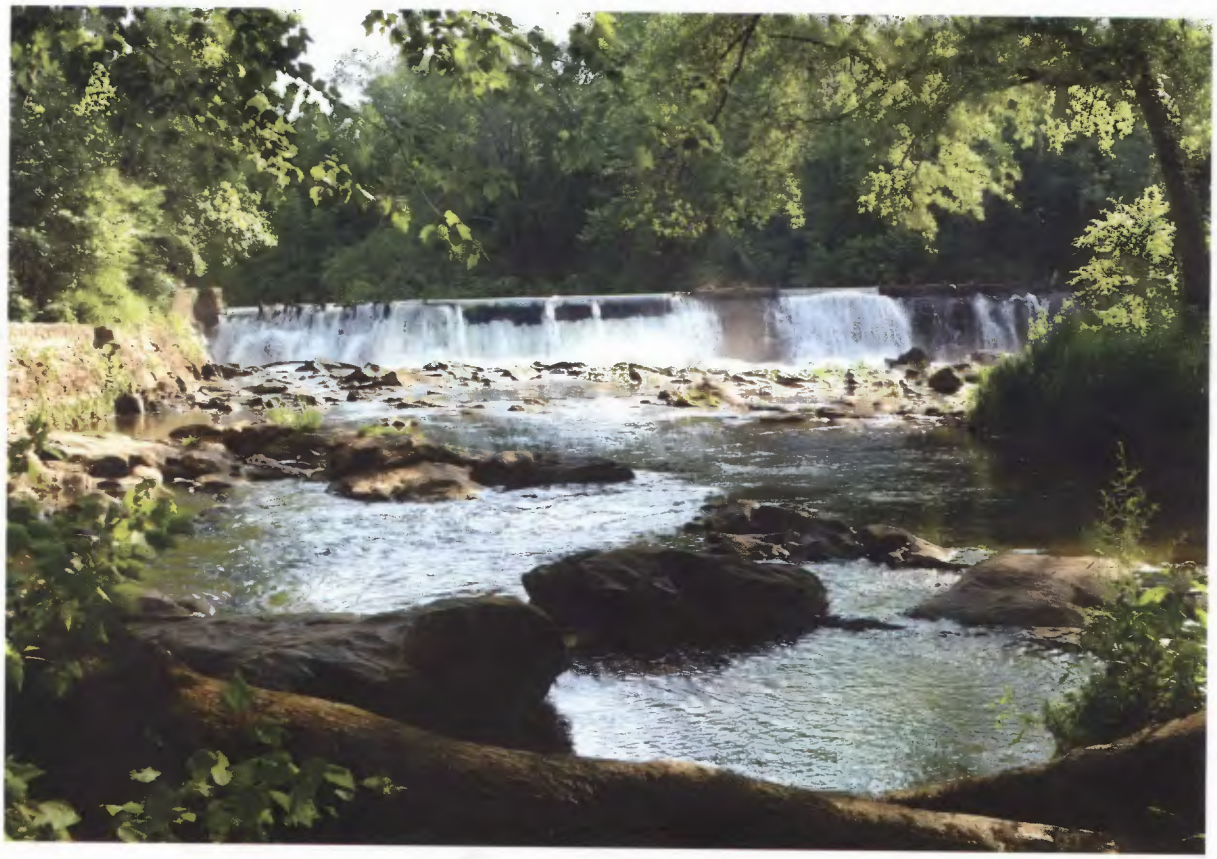
As you begin your job as Chief of the EPA I hope you will keep uppermost in your mind your duty to protect the environment we all share.

Clean air & water are essential to all living things - especially to children. Do you have any grand children? Think of their future as you measure the cost/benefit of your decisions.

I wanted you to see this book which so beautifully illustrates the impact of clean air on all living things.

Sincerely,

Bernadette Jones



Chattahoochee Valley Blueway

A waterfall on the Chattahoochee River along the Chattahoochee Valley Blueway, GA. As a critical ecosystem, the Chattahoochee River and its surrounding lands support a diverse array of plant and animal species. The Trust for Public Land has joined with cities along the Chattahoochee to create a paddling trail along a beautiful 52-mile stretch of the river—establishing it as a destination for recreation and ecotourism while boosting the valley's economy and quality of life.

The Trust for Public Land creates parks and protects land for people, ensuring healthy, livable communities for generations to come.

We depend on the support of individuals like you to make our important work possible. To help protect and preserve treasured lands, please visit The Trust for Public Land online at tpl.org/join and become a member today.

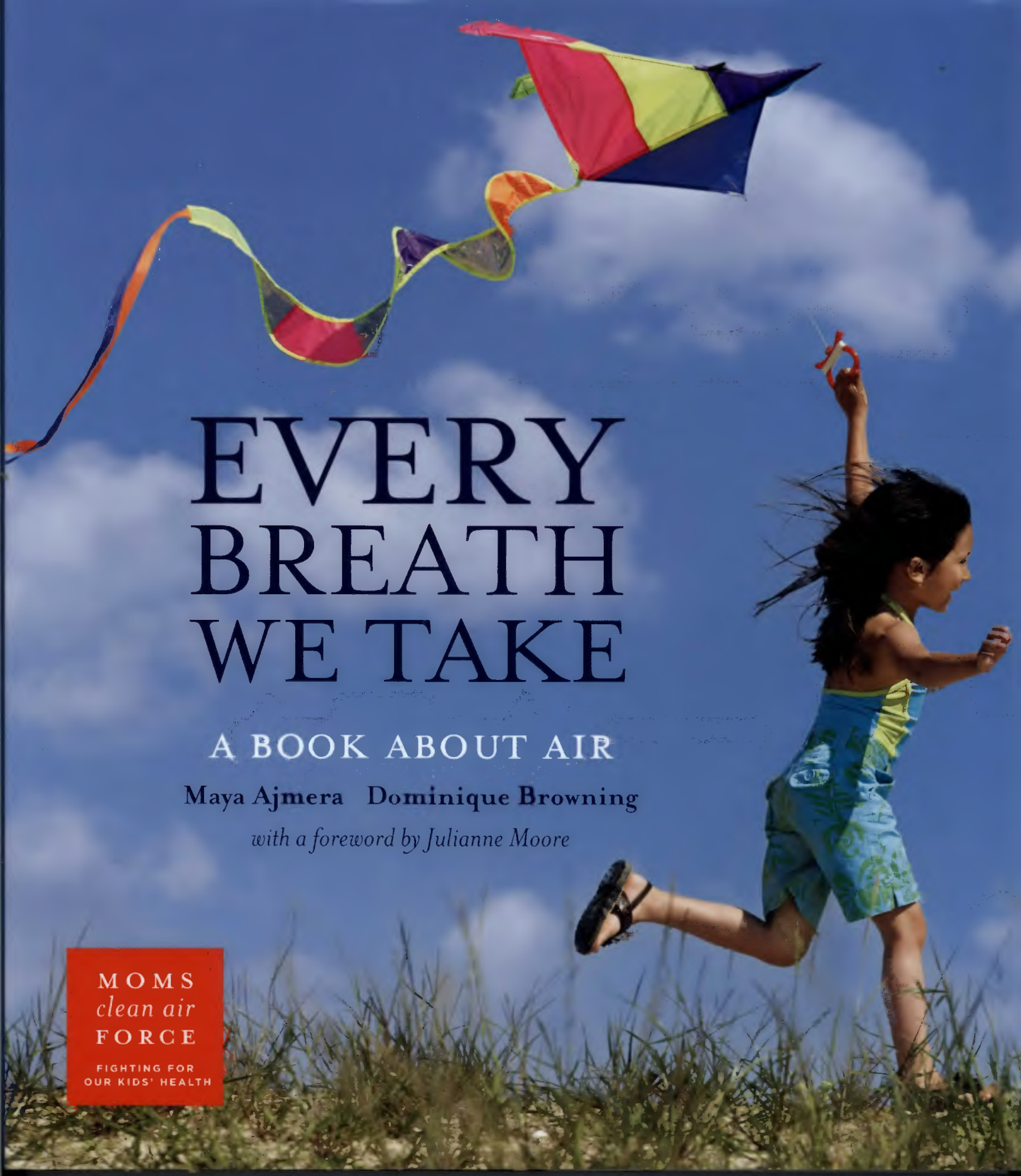
THE TRUST **FOR PUBLIC LAND**

101 Montgomery St., Suite 900
San Francisco, CA 94104
1-800-714-5263 • tpl.org

Printed on 100% recycled paper. © 2016 The Trust for Public Land.

© TPL Archives

Chief Scott Pruitt
Office of the Administrator 1101 A
Environmental Protection Agency
1200 Pennsylvania Ave.
Washington D.C. 20460



EVERY BREATH WE TAKE

A BOOK ABOUT AIR

Maya Ajmera Dominique Browning

with a foreword by Julianne Moore

MOMS *clean air* FORCE

FIGHTING FOR OUR KIDS' HEALTH

FOREWORD

If I told you that everybody in the world shares ONE invisible thing that keeps us ALL alive, would you believe me?

If I told you that THAT THING is inside of us, AND outside of us, at the SAME TIME, would you think I was crazy?

Maybe. Or maybe you would know that I was talking about air.

I think you would know that, because kids are smart. Kids are so smart that they sometimes know things before grown-ups do. Like how to take care of our planet and keep our air clean for all the people, animals, and plants to breathe.

Sometimes grown-ups have not been so smart about keeping the air clean, and we need to work harder at that. Because the air is important for all of us, but especially for you kids. You are growing and learning and getting bigger every day.

And so we need to make sure that there is plenty of clean air for all the kids, all over the world.

We NEED to do that. Because we love you so much.

JM

Julianne Moore

Academy Award–winning actor, children's book author, and activist member of Moms Clean Air Force

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL CENTER FOR ENVIRONMENTAL ASSESSMENT
WASHINGTON, DC 20460

OFFICE OF
RESEARCH AND DEVELOPMENT

Dennis Chen
Chang Chun Chemical Corporation
STE G103
10475 Perry Highway
Wexford, PA 15090

April 12, 2017

Dear Mr. Chen,

Thank you for your letter of March 9, 2017 requesting "data usage/referral rights" in a study authored by the U.S. Environmental Protection Agency.

The study, entitled "Rat Oral Subchronic Toxicity Study with Isobutyl Alcohol (final Report)," is available to the public on-line at https://ntrl.ntis.gov/NTRL/dashboard/searchResults/titleDetail/OTS0531063.xhtml from the Department of Commerce's National Technical Reports Library. There is no need for EPA to grant data usage/referral rights. Your affiliate (or anyone else, for that matter) may freely use the study.

If you have any further questions about usage of this study, you may contact Geoff Cooper in the Office of General Council at cooper.geoff@epa.gov or by phone at (202) 564-5451. I can be reached at damico.louis@epa.gov or by phone at (703) 347-0344.

Sincerely,

Louis J. D'Amico, Ph.D.
Assistant Center Director, Communications and Regulatory Support
National Center for Environmental Assessment
U.S. EPA, Office of Research and Development

CC: Geoff Cooper

RECEIVED
2017 MAR 13 PM 3:40
OFFICE OF THE
EXECUTIVE SECRETARIAT

Chang Chun Chemical Corporation

STE G103 10475 Perry Hwy, Wexford, PA 15090
TEL：724-719-6257

March 9, 2017

To: Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Re: Requesting data usage right for a study owned by US EPA on isobutyl alcohol

Dear Sir or Madam,

It is our understanding that US Environmental Protection Agency (EPA) **owns** a study on isobutyl alcohol (IBA) called "R*at Oral Subchronic Toxicity Study of 1-Propanol, 2-methyl-(final report)*."This study was conducted on behalf of EPA in cooperation with Research Triangle Institutein 1985, and the study was conducted by Toxicity Research Laboratories Ltd., with the coverpage of the study shown as attached (along with US EPA marking of the document # and other marking as shown)

I am writing to ask whether it is possible for US EPA to grant the data usage/referral right to this study to our affiliate in Germany, CCD (Germany) GmbH. As part of complying with EU chemical regulation (REACH Regulation), our affiliate in EU, CCD (Germany) GmbH, would like to refer to this study as part of submitting registration dossier for IBA. Previous contact by our affiliate to EPA resulted no reply.

If there is a fee in referring the study, could you let us know how much it would cost and let us know what is the procedure that one needs to follow to acquire the usage right for this study?If there is no fee or cost in obtaining the usage right, is it possible for EPA issue a formal written letter/statement indicating that our affiliate, CCD (Germany) GmbH, is allowed to refer such study at no charge. This would be needed as part of purchasing

Any information will be greatly appreciated. Thank you.

Sincerely,

Dennis Chen

Dennis Chen, Business Director

EPA/530-SW-88-015

PB88176177

TRL STUDY #032-002

Conducted for:

RESEARCH TRIANGLE INSTITUTE
P.O. Box 12194
Research Triangle Park, North Carolina 27709

by:

TOXICITY RESEARCH LABORATORIES, LTD.
510 West Hackley Avenue
Muskegon, Michigan 49444

Rat Oral Subchronic Toxicity Study
Final Report

Compound:

Isobutyl Alcohol

Start of Test (pretreatment):	July 30, 1985
Interim Necropsy:	September 3 and 4, 1985
Final Necropsy:	November 5 and 6, 1985

REPRODUCED BY
U.S. DEPARTMENT OF COMMERCE
NATIONAL TECHNICAL
INFORMATION SERVICE
SPRINGFIELD, VA. 22161

March 8, 2017

RECEIVED
2017 MAR 13 PM 3:40
OFFICE OF THE
EXECUTIVE SECRETARIAT

Mr. Scott Pruitt
Environmental Protection Agency
1200 Pennsylvania Avenue NW
Mail Code 1101A
Washington, DC 20460

Dear Mr. Pruitt,

Patriotism is the key to success in our great nation, and patriotism itself is unquestionably linked to the glorification of our natural resources that are uniquely ours. Just as baseball, American-made cars, apple pie, and our flag are all symbols of our nation, so too are our plants and wildlife.

President Trump has stated not only is our nation facing a critical immigration crisis, but we are also losing countless jobs to outsourcing overseas. He has shared that hardworking Americans are losing their jobs to those who entered this country illegally, threatening our way of life.

These crises are analogous to the loss of our native plants and animals, the very same that have become symbols of our great nation. Native plants such as trees and roses, both of which are national symbols of our country, are being replaced by non-native, invasive immigrant species. These invasive plants are readily sold at nurseries, often for cheaper than their native counterparts, and have started to take over our landscapes. This is truly a horrifying vision for the American patriot; instead of representing our nation with oaks and roses on our front lawns, we are displaying invasive immigrant species.

The only way to prevent this from ever happening is to make a switch back to using only 100% native species from America in our landscaping and restoration projects. Some states, such as New York, have already started pushing for the banning of these invasive species from being sold in their plant nurseries. This is a strategy we will need to push towards on a national level to prevent our native species, including those so beloved that they represent our nation, from disappearing forever.

Enclosed is a copy of Bringing Nature Home, a book which concisely outlines the importance of native plants, and what we as Americans can do to help as part of our civic duty. By their request, my team and I have distributed over 350 copies of this book to local community leaders and business owners to date. I encourage you to read through this book and learn more about the native plants that make up our natural heritage. As the CEO of 16 small corporations spanning the areas of healthcare, real estate, and the environment, it would be a privilege to meet with either yourself or the EPA director to discuss the matter further.

I sincerely thank you for your time, and offer my congratulations on the recent election.

Sincerely,

Dr. Benjamin M. Burton
(b) (6)

"If you have a backyard, this book is for you."
–Richard Louv, author of *Last Child in the Woods*

Bringing Nature Home

UPDATED AND EXPANDED

How You Can Sustain Wildlife with Native Plants

Douglas W. Tallamy

Foreword by **Rick Darke**

Frontispiece: A mockingbird surveys his territory, making sure no other birds are eating the insects it contains.

Mention of trademark, proprietary product, or vendor does not constitute a guarantee or warranty of the product by the publisher or author and does not imply its approval to the exclusion of other products or vendors.

Copyright © 2007 by Douglas W. Tallamy. All rights reserved.
Photographs are by the author unless otherwise credited.

First edition published in 2007.
Updated and expanded paperback edition published in 2009 by Timber Press, Inc.

Eighth printing 2014

The Haseltine Building
133 S.W. Second Avenue, Suite 450, Portland, Oregon 97204-3527
timberpress.com

6a Lonsdale Road
London NW6 6RD
timberpress.co.uk

ISBN-13: 978-0-88192-992-8

Printed in China

The Library of Congress has cataloged the hardcover edition as follows:

Tallamy, Douglas W.
Bringing nature home : how native plants sustain wildlife in our gardens / Douglas W. Tallamy.
p. cm.
Includes bibliographical references and index.
ISBN-13: 978-0-88192-854-9
1. Native plants for cultivation--United States. 2. Natural landscaping--United States. 3. Animal-plant relationships--United States. 4. Insect-plant relationships--United States. I. Title.
SB439.T275 2007
639.9'2091733--dc22 2007012552

A catalog record for this book is also available from the British Library.

CO

Foreword
Preface

1. Restoring Natives to Suburbi
2. The Vital New Role of the Su
3. No Place to Hide
4. Who Cares about Biodiversity
5. Why Can't Insects Eat Alien P
6. What Is Native and What Is N
7. The Costs of Using Alien Orn
8. Creating Balanced Communit
9. Gardening for Insect Diversity
10. Blending In with the Neighbo
11. Making It Happen
12. What Should I Plant?
13. What Does Bird Food Look Lik
14. Answers to Tough Questions

Afterword: The Last Refuge
Appendix 1: Native Plants with Wild Landscaping Attributes
Appendix 2: Host Plants of Butterflie
Appendix 3: Experimental Evidence
References
Index

Micro-Bac®
INTERNATIONAL

RECEIVED
2017 MAR 13 PM 3:40
OFFICE OF THE
EXECUTIVE SECRETARIAT

March 8, 2017

The Honorable Scott Pruitt
Administrator
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Administrator Pruitt:

Did you know that the earth is home to 1 trillion species of organisms, which 99.99 percent have yet to be discovered? Most are Microbes.

Micro-Bac International, Inc. (MBI) is a company located in Round Rock, Williamson County, Texas, with 35 years of experience, specializing in the research and development of biological products in the field of micro-organisms. We were given a grant from NASA and developed a phototropic cell for water purification in space. Our expertise in bacteria is in the remediation of the land contaminated with organic compounds, such as gasoline, oil, sulfur and some chemicals, to name a few. We eradicate hazardous waste from land and water. This is done successfully with natural occurring bacteria. Micro-Bac products are non-pathogenic, non-engineered (GEM's), non-hazardous, 100% natural and safe for the environment.

Most of our revenue has come from customers in Ecuador, Europe, Mexico, Venezuela and other countries. Micro-Bac International, Inc. could have uprooted and relocated to Mexico where the labor costs are less, but as an American company we are committed to our nation.

MBI is extremely concerned about the numerous contaminated areas in the United States. Due to bureaucracy, we have not been able to reach our potential here in our domestic market. Therefore we need your assistance in accessing the government departments and the names of those in charge of ordering the clean-up of ground contaminants in the US, naming sites and allowing us to use MBI products.

Our products are more effective opposed to chemicals. The use of natural bacteria in the bioremediation of contaminated sites is in its infancy and should be utilized for the benefit of mankind.

Enclosed is an MBI pamphlet for more information about us!

We understand that your time is very valuable, but look forward to hearing from you.

Most respectfully,

Juan Morales
President

Micro-Bac International, Inc.® • 3200 N. Interstate 35, Round Rock, TX 78681-2410 • (512)310-9000 • Fax (512) 310-8800 • (877)559-1800 •
www.micro-bac.com

TREATMENT AREAS LIST

PETROLEUM INDUSTRY

- Clean-up of oil spills
- Paraffin Control
- Scale Control
- Corrosion Control
- SRBs Growth Control
- Enhance Oil Field Recovery
- Increase Oil Production
- Tank and Pipe Cleaning
- Fracture Repair
- Pump Maintenance
- Water Flood Maintenance

BIOREMEDIATION

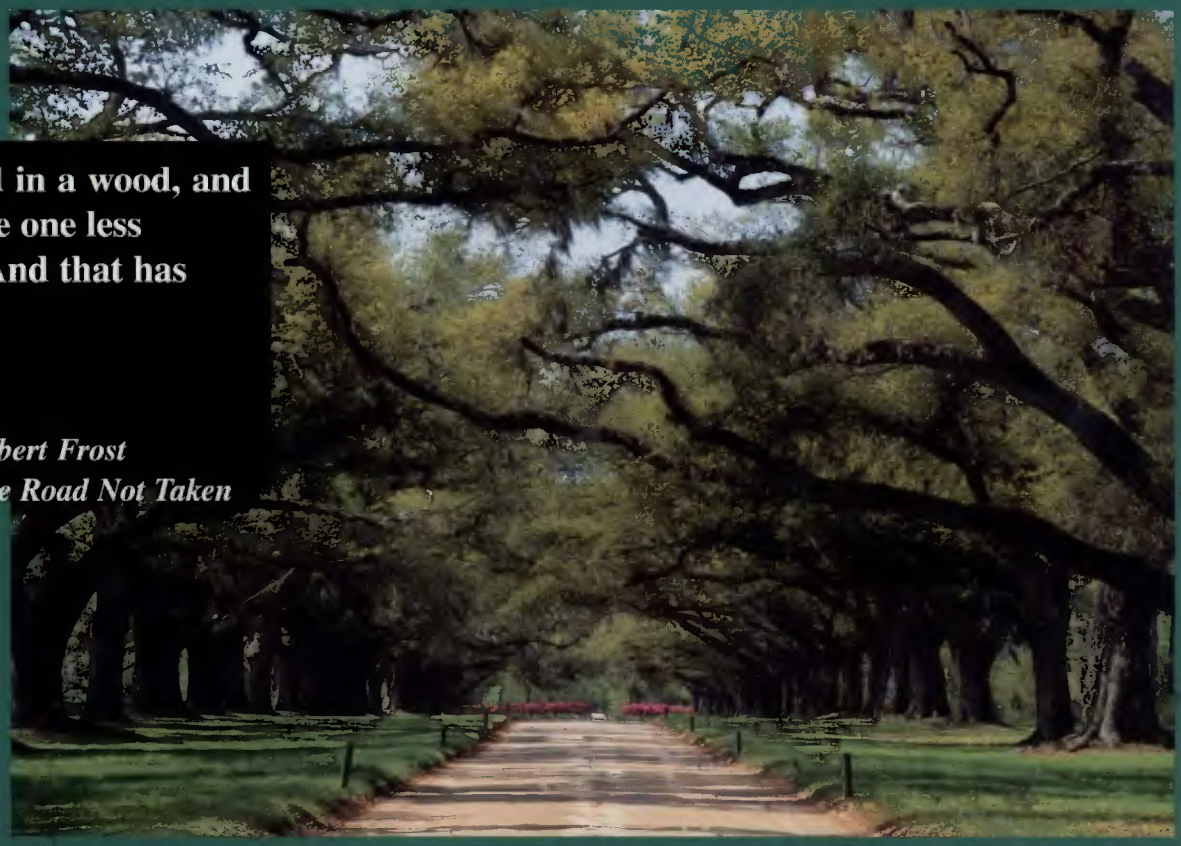
- Hazardous Waste
- Specific Gasoline Waste
- Crude Oil Waste
- Contaminated Soil
- Landfarm Applications
- Oil and Gas Stains on Asphalt and Concrete

WASTE WATER/FOOD PROCESSING/ANIMAL WASTE

- Wastewater and H2S
- High Strength Wastewater with Grease
- Brewery Wastewater
- Animal Waste
- Organic Waste
- Foul Odors Control

Leading The New Direction

Micro-Bac International Inc.®



"Two roads diverged in a wood, and I -- I took the one less traveled by. And that has made all the difference."

Robert Frost
The Road Not Taken

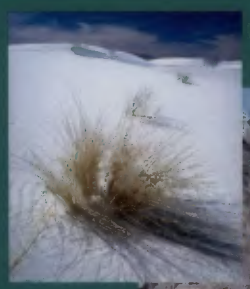
When Micro-Bac International Inc.® set out in 1979 to improve the environment and enhance the accessibility to the world's energy reserves, they had little more than a conscience and a vision. Today, Micro-Bac continues to create global solutions for our resource-strapped planet. From the critical issues with water and wastewater, to the detrimental effects of environmental contamination, to the challenges of efficient petroleum production, Micro-Bac is committed to solving these problems with innovative and environmentally friendly solutions. And that first step has made all the difference.

A Commitment to Innovation

Developing solutions for a marketplace that is fast approaching $1 trillion requires not only constant innovation, but a dedication to a new way of thinking. Toward this goal, Micro-Bac R & D teams are firmly committed to new ideas such as Green Integrated Technologies. By recognizing the value of integrating other key technologies, Micro-Bac ensures that new product development creates compatible and synergistic solutions for us all.

Unlocking the Secrets of the Universe

The key to solving the world's environmental and energy problems is apparent to those researchers who truly understand the dynamics of environmental biotechnology. Micro-Bac has spent decades compiling and maintaining one of the most extensive environmental culture collections in the world. Micro-Bac scientists continue to discover new biological solutions from the myriad that can be expressed under the diverse conditions that exist in the environment.



"The secrets to environmental solutions are ours for the taking."

Biotechnologies

Micro-Bac technologies are successfully being used in the following markets:*

- Oil Production
- Reservoir Stimulation
- Refinery and Terminal Services
- Paraffin and Scale Control
- Tank Cleaning
- Fracture Damage Repair
- Bioremediation
- Municipal Wastewater Treatment
- Industrial Wastewater Treatment
- Grease Trap Maintenance
- Food Processing Waste
- Waste Odor Control
- Animal Waste Degradation
- Animal Health

* Box color represents product line color

SOLUTIONS WI

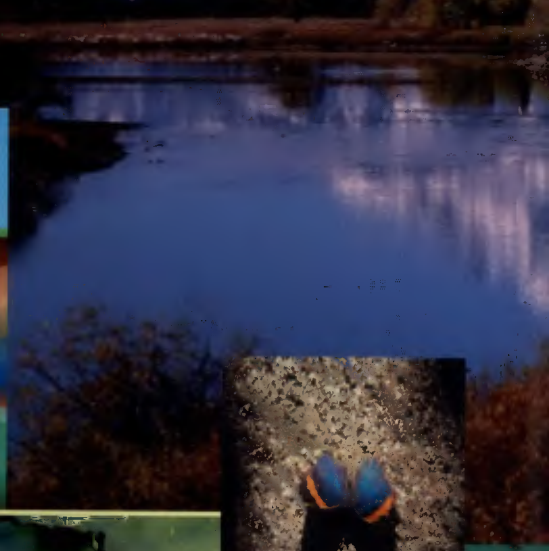
Oil Production

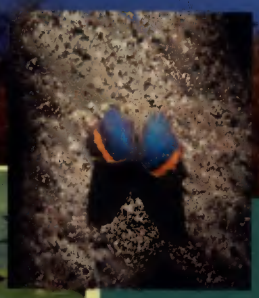
Paraffin & Scale Control

Tank Cleaning

Terminal Services

Frac Damage Repair





An

NASA Commercial Technology Spinoff

TH A CONSCIENCE

Soil & Groundwater Clean-up

Bioremediation

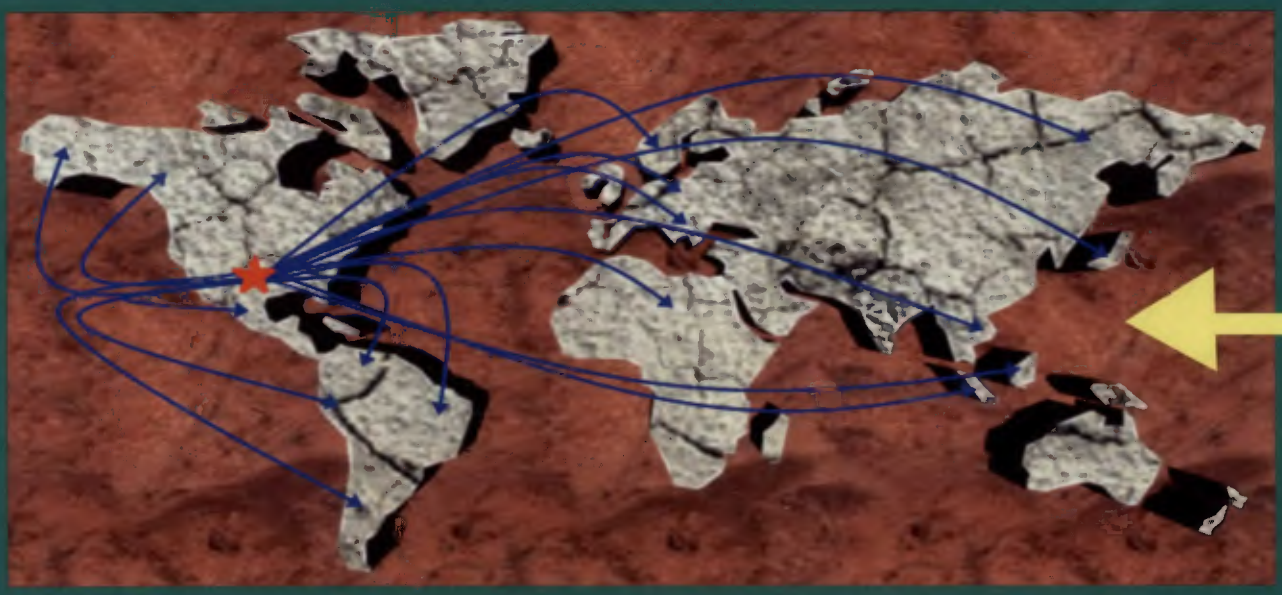
Wastewater Remedies

Grease Digestion and Trap Maintenance

nal Waste Solutions

Degradation of Food Processing Wastes

A Global Marketplace



Strategically located business interests throughout the world.

Micro-Bac has developed an impressive list of partnerships around the world that share our vision. It is the mission of the business development group to seek out those individuals which exemplify the entrepreneurial spirit and those businesses that realize the value in sharing strategies, time and resources.

Information

As advances in Information Technology rapidly unfold, Micro-Bac will continue to develop its seamless business and distribution channels. Using both internet and intranet capabilities, our goal is to link partners, distributors, industries and customers with the latest information, the best products and the most innovative platform from which to build business.

A Formula for Success

Today more than ever, businesses need to build strong relationships to stay competitive.

From distributors to joint ventures to strategic alliances, Micro-Bac continues to refine its business models for success. All Micro-Bac distributors are trained both technically and in business development to ensure long term success and greater market growth.

A Full Service Company

Analytical Testing and Services

Project Management

Business Development

Oil Field Engineering Services

Product Application Support

Marketing Support

Leading the New Direction

The new direction requires us to address the Earth's diminishing resources with a dynamic consortium of science, business and vision. Micro-Bac is at the forefront of this revolution by combining biological innovation and information technology to develop safe, alternative solutions for cleaning up the environment.

The new direction has just begun and Micro-Bac is leading the way.

Scan direct to our website

Micro-Bac International Inc.
3200 N. I H 35 • Round Rock, TX 78681
Ph: 512-310-9000 • Fax: 512-310-8800
Email: mail@micro-bac.com • Web: www.micro-bac.com
Toll-Free: 877-559-1800

Mon Mar 13 20:59:02 EDT 2017
Hope.Brian@epamail.epa.gov
FW: Request for Meeting to discuss Mississippi Phospahtes
To: CMS.OEX@epamail.epa.gov; Dickerson.Aaron@epamail.epa.gov

For the Daily Reading File

From: Brent de Jong [mailto:brent.dejong@castlelake.com]
Sent: Monday, March 13, 2017 6:10 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: Request for Meeting to discuss Mississippi Phospahtes

Mr. Pruitt,

I am a partner at Castlelake, a $10 bn private investment firm and the Chairman of www.itafos.com, a phosphate mining and fertilizer company. I am in a unique place to fix Mississippi Phosphate. Itafos has the phosphate rock, the main input material, and access to equity capital which are necessary components to rebuild and make Mississippi Phosphate facility operable. We would bring more than 250 jobs back to Mississippi and save the US federal government more than $100 million of liabilities (currently being considered to be added to the Superfund List).

Despite having the tools and interest to make this work it is still a tough investment given both the lack of project financing in the US and commodity pricing. I have been working with various authorities over the past 18 months. During that time I have established a good rapport and working relationship with the MDEQ, who are motivated to find a constructive solution. While I have had extensive dialogue with EPA staff (large legal bills), we do not have a meeting of the minds. The short is that I can pay for the water cost management, but cannot take on the low probability catastrophic risk e.g. hurricanes or geotechnical gaps.

There is a further discussion to have frankly – gypsum should not be stacked – it is bad environmental practice in the first place. It makes a great roadbed, which if the US does not want, I would be happy to export it to help build developing nations.

I can come to Washington DC April 6/7 or April 13/14. Please let me know if you are available to meet so that I can brief you more fully on the situation.

Best,

Brent de Jong|Castlelake

Partner

4600 Wells Fargo Center | 90 South 7th Street | Minneapolis, MN 55402

Tel: +1 612-851-3006 | Mobile: +1 713-240-0103

brent.dejong@castlelake.com

www.castlelake.com

Tue Mar 14 10:04:26 EDT 2017
Hope.Brian@epamail.epa.gov
FW: Clean Air Act Notice of Intent to Sue Letter
To: CMS.OEX@epamail.epa.gov

For the Daily Reading File

From: Robert Ukeiley [mailto:rukeiley@igc.org]
Sent: Tuesday, March 14, 2017 8:22 AM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Cc: Smith, Kristi <Smith.Kristi@epa.gov>; 'Jonathan Evans' <jevans@biologicaldiversity.org>; Caroline Cox <Caroline@ceh.org>
Subject: Clean Air Act Notice of Intent to Sue Letter

Please see attached.

Robert Ukeiley

Law Office of Robert Ukeiley

255 Mountain Meadows Road

Boulder, CO 80302

Tel: 303-442-4033

rukeiley@igc.org

Counsel for CBD and CEH

Law Office of Robert Ukeiley

255 Mountain Meadows Road ◦ Boulder, CO 80302 ◦ tel. 303.442.4033

Robert Ukeiley
rukeiley@igc.org

VIA CERTIFIED MAIL, RETURN RECEIPT REQUESTED

March 14, 2017

Scott Pruitt
Administrator
United States Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

Re: Clean Air Act Notice of Intent to Sue pursuant to 42 U.S.C. § 7604(b)(2) for failure to make findings of failure to submit under 42 U.S.C. § 7410(k)(1)(B) for 2008 ozone NAAQS nonattainment areas state implementation plans

Dear Administrator Pruitt,

On behalf of the Center for Biological Diversity and the Center for Environmental Health, I am writing to inform you that they intend to file suit against you for "a failure of the Administrator [of the United States Environmental Protection Agency ("EPA")] to perform any act or duty under this chapter which is not discretionary with the Administrator." 42 U.S.C. § 7604(a)(2). Specifically, under 42 U.S.C. § 7410(k)(1)(B), EPA must issue a finding of failure to submit nonattainment area state implementation plan (SIP) submittal elements, and publish notice of that action in the Federal Register for the 2008 ozone national ambient air quality standards (NAAQS). This duty is required for the nonattainment areas and elements listed in Table 1. As explained in more detail below, EPA has failed to perform these mandatory duties.

EPA should remedy its violation of these mandatory duties to better protect the public and native ecosystems from ozone's harmful effects. People commonly refer to ground level ozone as smog. According to EPA, based on exhaustive scientific review, ozone pollution causes decreased lung function, increased respiratory symptoms, emergency department visits, hospital admissions for respiratory causes, and even death. 73 Fed. Reg. 16,436 (Mar. 27, 2008). Those most at risk from ozone pollution are children; active people, *e.g.,* runners and people who do manual labor outside; people with pre-existing lung and heart diseases such as asthma; and older people. *Id.* at 16,440. Ozone also damages vegetation, both native and commercial crops.

Id. at 16,485-16,486. Damage to native vegetation results in ecosystem damage, including diminished ecosystem services, that is, the life sustaining services that ecosystems provide to people for free, such as clean air, clean water and carbon sequestration. *Id.*

I. FAILURE TO MAKE FINDING OF FAILURE TO SUBMIT

EPA is required to determine whether a state implementation plan (SIP) submittal is administratively complete. 42 U.S.C. § 7410(k)(1)(B). If, six months after a submittal is due, a state has failed to submit any required SIP submittal, there is no submittal that may be deemed administratively complete, and EPA must make a determination stating that the state failed to submit the required SIP submittal. *Id.* This determination is referred to as a "finding of failure to submit."

EPA's nonattainment designations for the 2008 ozone NAAQS were effective for most areas of the United States no later than July 20, 2012. *see* 77 Fed. Reg. 30,088 (May 21, 2012). EPA designated all of the areas listed in Table 1 nonattainment for the 2008 ozone NAAQS. All elements of the nonattainment SIP were due by no later than the dates listed in Table 1. *See* http://www3.epa.gov/airquality/urbanair/sipstatus/reports/ozone-8hr__2008_en.html. EPA has a mandatory duty to make a completeness finding under 42 U.S.C. § 7410(k)(1)(B) by no later than six months after the due dates for the submittals. The States in Table 1 have failed to submit nonattainment SIPs for the areas and elements listed in Table 1 as of the date of this letter. Yet, EPA has failed to issue a finding of failure to submit, as required under 42 U.S.C. § 7410(k)(1)(B), regarding the nonattainment SIPs for the areas and elements listed in Table 1.

TABLE 1

AREA & ELEMENT(S)	**SUBMITTAL DEADLINE (No later than)**
Los Angeles-South Coast Air Basin, CA: Contingency measures for Volatile Organic Compounds (VOC) and Nitrogen Oxides (NOx), Contingency Provisions for Reasonable Further Progress (RFP) Milestones 182(c)(9), Enhanced Monitoring Photochemical Assessment Monitoring Stations (PAMS), Inspection/Maintenance (I/M) enhanced, Attainment Demonstration, RFP VOC and NOX - Extreme	7/20/2016
Los Angeles-San Bernardino Counties (West Mojave Desert), CA: Contingency measures for VOC and NOx, Contingency Provisions for RFP Milestones 182(c)(9), I/M enhanced, Attainment Demonstration,	7/20/2016

RFP VOC and NOX - Severe 15,	
Riverside County (Coachella Valley), CA: Contingency measures for VOC and NOx, Contingency Provisions for RFP Milestones 182(c)(9), Enhanced Monitoring (PAMS), I/M enhanced, Attainment Demonstration, RFP VOC and NOX - Severe 15,	7/20/2016
Sacramento Metro, CA: Contingency measures for VOC and NOx, Contingency Provisions for RFP Milestones 182(c)(9), Enhanced Monitoring (PAMS), I/M enhanced, Attainment Demonstration, RFP VOC and NOX - Severe 15	7/20/2016
Ventura County, CA: Contingency measures for VOC and NOx, I/M enhanced, Attainment Demonstration, RFP VOC and NOx – Serious,	7/20/2016

As required by 40 C.F.R. § 54.3, the persons providing this notice are:

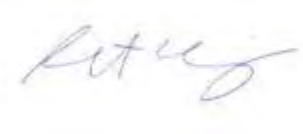
The Center for Biological Diversity
1212 Broadway, Suite 800
Oakland, CA. 94612
Attn: Jonathan Evans
Tel: (510) 844-7100 x318

Center for Environmental Health
2201 Broadway, Suite 302
Oakland, CA 94612
Attn: Caroline Cox
Tel: (510) 655-3900

While EPA regulations require this information, please direct all correspondences and communications regarding this matter to the undersigned counsel.

The Center for Biological Diversity and the Center for Environmental Healht and their counsel would prefer to resolve this matter without the need for litigation. Therefore, we look forward to EPA coming into compliance within 60 days. If you do not do so, however, we will have to file a complaint.

Sincerely,



Robert Ukeiley
Counsel for Center for Biological Diversity and
Center for Environmental Health

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF WATER

MAR 2 0 2017

Mr. Greg J. Goeser
(b) (6)

Dear Mr. Goeser:

Thank you for your letter dated March 13, 2017, to the U.S. Environmental Protection Agency (EPA) Administrator Scott Pruitt regarding the definition of "waters of the U.S." Your letter has been referred to me in EPA's Wetlands Division within the Office of Water.

On February 28, 2017, the President signed the "Executive Order on Restoring the Rule of Law, Federalism, and Economic Growth by Reviewing the "Waters of the United States." The Executive Order calls on the EPA Administrator and the Assistant Secretary of the Army for Civil Works to review the final Clean Water Rule and "publish for notice and comment a proposed rule rescinding or revising the rule...." The Executive Order directs the EPA and the U.S. Army Corps of Engineers to "consider interpreting the term "navigable waters" in a manner "consistent with Justice Scalia's opinion" in *Rapanos*. The Scalia standard describes the scope of Clean Water Act jurisdiction to include relatively permanent waters and wetlands with a continuous surface connection to relatively permanent waters.

Since the Executive Order was issued, EPA has taken two actions. First, we published a *Federal Register* notice on March 6, 2017, entitled "Intention to Review and Rescind or Revise the Clean Water Rule." The notice announces EPA's and Army's intention to review and rescind or revise the 2015 Clean Water Rule, consistent with Justice Scalia's standard. Second, at EPA's request, on March 6, 2017, the Department of Justice advised the Sixth Circuit Court of Appeals that the agencies intend to consider rescinding or revising the Clean Water Rule. The notice is called for by the Executive Order in light of the ongoing Clean Water Rule litigation currently before that court.

Information about these actions can be found on EPA's website at https://www.epa.gov/cleanwaterrule.

Sincerely,

Mindy Eisenberg, Acting Director
Wetlands Division

Tue Mar 14 10:13:41 EDT 2017
Hope.Brian@epamail.epa.gov
FW: PLEASE HELP!!!
To: CMS.OEX@epamail.epa.gov

For the Daily Reading File

From: Greg Goeser [mailto: (b) (6)
Sent: Monday, March 13, 2017 11:13 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: PLEASE HELP!!!

Dear Mr. Pruitt,

Congratulations on your appointment! I've followed your career and I've waited for decades for a common sense leader of the EPA! I'm contacting you directly, because I have no confidence/trust in the St. Paul District. I know your plate is overflowing, so I'll make this as brief as possible.

I'm an international exploration geologist by education, and in my heart. To stay close to my daughters (make sure they were on the right path), I've limited my overseas travel. Because there are limited exploration opportunities in Minnesota (I was one of two geologists who started the PolyMet Cu/Ni project in northern MN in 1998), in 2000, to work in the field and make ends meet, I began doing environmental work. As an exploration geologist, much of my work was cleaning up mining districts after the Soviets, Chinese, and other destructive entities. Since then, I've probably, quietly conducted more wetland delineations than anyone in State history. I've delineated thousands of individual wetlands, thus protecting hundreds of thousands of acres. I love the environment/field and would rather be clinging to the side of a mountain or whacking my way through a jungle, than sitting in a nice safe office.

Prior to the Obama administration, wetland regulations were strict, yet fair. The regulations were basic and relatively easy (for me) to follow. The Wetland Banking system allowed for farmers and developers to replace wetlands, usually at a 2:1 ratio. The EPA/Army Corps were seldom heard from, and were only involved in "navigable waters". The major over-regulating agency was the Minnesota Board of Water and Soil Resources (BWSR).

Since Obama's executive orders, namely the Clean Water Rule (I've attached two short fact sheets), the Corps has claimed jurisdiction over every drop of water on the planet. The local/state regulators have lost any say in all wetland matters. Because they rely on/fight over Federal funding, the local/state regulators, especially BWSR, have become cowardly minions of the Corps. The current Corps requirements for delineations, replacement plans, and wetland banking are so contorted, confusing, and contradictory, that no one has a clue on how to proceed. Now, projects which could be resolved in days, are stretched out for years and then often rejected. The wetland banking system has been destroyed and only the ultra rich, politically-connected, and large corporations can afford to conduct wetland projects. The Corps, with the help of BWSR, have nearly shutdown development and agricultural improvement. The local economies have lost $millions. The cumulative negative effects on the national economy have to be in the $billions. At the same time, the Corps, which is incompetent and has constant turnover, keeps hiring additional political (leftist) "regulators". To top it all, as you well know, the activist EPA/Corps has done more damage than good to the environment: toxic mine waste accidentally dumped into rivers. Having worked and lived in communist hellholes such as Nicaragua and Mongolia, I've never seen a more mismanaged, self-destructive, and fraudulent organization and set of rules as the EPA/Corps and the CWR (and Obamacare). This is insanity!

Please restore the EPA and Army Corps to the organizations that I once admired! Please cut the staff numbers and funding (to the agencies and their state-level surrogates) and refocus their sphere of influence to navigable waters. Please help save the country that I love so much!!!

Sincerely,

Greg J. Goeser

Exploration Geologist/Environmental Scientist

(b) (6)

(b) (6) (call anytime, night or day)

FACTSHEET

CLEAN WATER RULE

#CleanWaterRules www.epa.gov/cleanwaterrule

WHY CLEAN WATER IS IMPORTANT

Clean water is vital to our health, communities, and economy. We need clean water upstream to have healthy communities downstream. The health of rivers, lakes, bays, and coastal waters depend on the streams and wetlands where they begin. Streams and wetlands provide many benefits to communities by trapping floodwaters, recharging groundwater supplies, filtering pollution, and providing habitat for fish and wildlife. People depend on clean water for their health: About 117 million Americans -- one in three people – get drinking water from streams that were vulnerable to pollution before the Clean Water Rule. Our cherished way of life depends on clean water: healthy ecosystems provide wildlife habitat and places to fish, paddle, surf, and swim. Our economy depends on clean water: manufacturing, farming, tourism, recreation, energy production, and other economic sectors need clean water to function and flourish.

WHAT IS THE CLEAN WATER RULE

Protection for about 60 percent of the nation's streams and millions of acres of wetlands has been confusing and complex as the result of Supreme Court decisions in 2001 and 2006. The Clean Water Rule protects streams and wetlands that are scientifically shown to have the greatest impact on downstream water quality and form the foundation of our nation's water resources. EPA and the U.S. Army are ensuring that waters protected under the Clean Water Act are more precisely defined, more predictable, easier for businesses and industry to understand, and consistent with the law and the latest science. The Clean Water Rule:

> The Clean Water Act protects the nation's waters. A Clean Water Act permit is only needed if these waters are going to be polluted or destroyed.

- **Clearly defines and protects tributaries that impact the health of downstream waters**. The Clean Water Act protects navigable waterways and their tributaries. The rule says that a tributary must show physical features of flowing water – a bed, bank, and ordinary high water mark – to warrant protection. The rule provides protection for headwaters that have these features and science shows can have a significant connection to downstream waters.
- **Provides certainty in how far safeguards extend to nearby waters.** The rule protects waters that are next to rivers and lakes and their tributaries because science shows that they impact downstream waters. The rule sets boundaries on covering nearby waters for the first time that are physical and measurable.
- **Protects the nation's regional water treasures.** Science shows that specific water features can function like a system and impact the health of downstream waters. The rule protects prairie potholes, Carolina and Delmarva bays, pocosins, western vernal pools in California, and Texas coastal prairie wetlands when they impact downstream waters.
- **Focuses on streams, not ditches.** The rule limits protection to ditches that are constructed out of streams or function like streams and can carry pollution downstream. So ditches that are not constructed in streams and that flow only when it rains are not covered.
- **Maintains the status of waters within Municipal Separate Storm Sewer Systems.** The rule does not change how those waters are treated and encourages the use of green infrastructure.

- **Reduces the use of case-specific analysis of waters.** Previously, almost any water could be put through a lengthy case-specific analysis, even if it would not be subject to the Clean Water Act. The rule significantly limits the use of case-specific analysis by creating clarity and certainty on protected waters and limiting the number of similarly situated water features.

The rule protects clean water without getting in the way of farming, ranching, and forestry. Farms across America depend on clean and reliable water for livestock, crops, and irrigation. Activities like planting, harvesting, and moving livestock have long been exempt from Clean Water Act regulation, and the Clean Water Rule doesn't change that. The Clean Water Rule provides greater clarity and certainty to farmers and does not add any new requirements or economic burden on agriculture.

The rule only protects waters that have historically been covered by the Clean Water Act. It does not interfere with or change private property rights, or address land use. It does not regulate most ditches or regulate groundwater, shallow subsurface flows or tile drains. It does not change policy on irrigation or water transfers. It does not apply to rills, gullies, or erosional features.

Subject	Old Rule	Proposed Rule	Final Rule
Navigable Waters	Jurisdictional	Same	Same
Interstate Waters	Jurisdictional	Same	Same
Territorial Seas	Jurisdictional	Same	Same
Impoundments	Jurisdictional	Same	Same
Tributaries to the Traditionally Navigable Waters	Did not define tributary	Defined tributary for the first time as water features with bed, banks and ordinary high water mark, and flow downstream.	Same as proposal except wetlands and open waters without beds, banks and high water marks will be evaluated for adjacency.
Adjacent Wetlands/Waters	Included wetlands adjacent to traditional navigable waters, interstate waters, the territorial seas, impoundments or tributaries.	Included all waters adjacent to jurisdictional waters, including waters in riparian area or floodplain, or with surface or shallow subsurface connection to jurisdictional waters.	Includes waters adjacent to jurisdictional waters within a minimum of 100 feet and within the 100-year floodplain to a maximum of 1,500 feet of the ordinary high water mark.
Isolated or "Other" Waters	Included all other waters the use, degradation or destruction of which could affect interstate or foreign commerce.	Included "other waters" where there was a significant nexus to traditionally navigable water, interstate water or territorial sea.	Includes specific waters that are similarly situated: Prairie potholes, Carolina & Delmarva bays, pocosins, western vernal pools in California, & Texas coastal prairie wetlands when they have a significant nexus. Includes waters with a significant nexus within the 100-year floodplain of a traditional navigable water, interstate water, or the territorial seas, as well as waters with a significant nexus within 4,000 feet of jurisdictional waters.
Exclusions to the definition of "Waters of the U.S."	Excluded waste treatment systems and prior converted cropland.	Categorically excluded those in old rule and added two types of ditches, groundwater, gullies, rills and non-wetland swales.	Includes proposed rule exclusions, expands exclusion for ditches, and also excludes constructed components for MS4s and water delivery/reuse and erosional features.

The Clean Water Rule FACT CHECK

#CleanWaterRules www.epa.gov/cleanwaterrule

The Clean Water Rule only protects the types of waters that historically have been covered under the Clean Water Act. The rule does not create any new permitting requirements for agriculture and maintains all previous exemptions and exclusions.It does not regulate most ditches and does not regulate groundwater, shallow subsurface flows, or tile drains. It does not make changes to current policies on irrigation or water transfers or apply to erosion in a field. The Clean Water Rule protects waters from pollution and destruction – it does not regulate land use or affect private property rights. These statements are supported by the text of the rule and its preamble.

A Clean Water Act permit is only needed if a protected water is going to be polluted or destroyed.

FACT: THE CLEAN WATER RULE DOES NOT REGULATE MOST DITCHES

Rule Text § 230.3(s)(2)(iii): "The following are not 'waters of the United States… the following ditches: (A) Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary. (B) Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands. (C) Ditches that do not flow, either directly or through another water, into [a traditional navigable water, interstate water, or the territorial seas.]"
Preamble page 169: "Moreover, since the agencies have focused in the final rule on the physical characteristics of excluded ditches, the exclusions will address all ditches that the agencies have concluded should not be subject to jurisdiction, including certain ditches on agricultural lands and ditches associated with modes of transportation, such as roadways, airports, and rail lines."

FACT: THE CLEAN WATER RULE DOES NOT CHANGE EXEMPTIONS FOR AGRICULTURE

Preamble page 8: "Congress has exempted certain discharges, and the rule does not affect any of the exemptions from CWA section 404 permitting requirements provided by CWA section 404(f), including those for normal farming, ranching, and silviculture activities. CWA section 404(f); 40 CFR 232.3; 33 CFR 323.4. This rule not only maintains current statutory exemptions, it expands regulatory exclusions from the definition of "waters of the United States" to make it clear that this rule does not add any additional permitting requirements on agriculture."

FACT: THE CLEAN WATER RULE DOES NOT REGULATE EROSIONAL FEATURES

Rule Text § 230.3(s)(2)(iv)(F): "The following are not 'waters of the United States' . . . erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of tributary . . . ."
Preamble page 175: "While the proposed rule specifically identified gullies and rills, the agencies intended that all erosional features would be excluded. The final rule makes this clear."

FACT: THE CLEAN WATER RULE DOES NOT REGULATE GROUNDWATER

Rule Text § 230.3(s)(2)(v): "The following are not 'waters of the United States… groundwater, including groundwater drained through subsurface drainage systems."
Preamble page 176: "The agencies include an exclusion for groundwater, including groundwater drained through subsurface drainage systems."

FACT: THE CLEAN WATER RULE DOES NOT REGULATE FARM PONDS

Rule Text § 230.3(s)(2)(iv)(B): "The following are not 'waters of the United States… Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds . . . ."
Preamble page 173: "In the exclusion for artificial lakes or ponds, the agencies have removed language regarding 'use' of the ponds, including the term 'exclusively.' . . . [T]he agencies recognize that artificial lakes and ponds are often used for more than one purpose and can have other beneficial purposes . . .."

FACT: THE CLEAN WATER RULE DOES NOT REGULATE LAND USE

Preamble page 8: **"**The rule also does not regulate … land use."

FACT: THE CLEAN WATER RULE DOES NOT CHANGE POLICY ON IRRIGATION

Rule text § 230.3(s)(2)(iv)(A): "The following are not 'waters of the United States… artificially irrigated areas that would revert to dry land should application of water to that area cease . . . ."
Rule text § 230.3(s)(2)(iv)(B): "The following are not 'waters of the United States . . . Artificial constructed lakes and ponds created in dry land such as . . . irrigation ponds . . . ."
Preamble page 8: "The rule also does not . . . affect either the existing statutory or regulatory exemptions from NPDES permitting requirements, such as for agricultural stormwater discharges and return flows from irrigated agriculture . . . ."

FACT: THE CLEAN WATER RULE DOES NOT REGULATE PUDDLES

Rule Text § 230.3(s)(2)(iv)(G): "The following are not 'waters of the United States… puddles."
Preamble page 176: "The final rule adds an exclusion for puddles . . . . Numerous commenters asked that the agencies expressly exclude them in a rule. The final rule does so."

FACT: THE CLEAN WATER RULE DOES NOT CHANGE POLICY ON STORMWATER

Rule text § 230.3(s)(2)(vi): "The following are not 'waters of the United States… stormwater control features constructed to convey, treat, or store stormwater that are created in dry land."
Preamble page 177: "This exclusion responds to numerous commenters who raised concerns that the proposed rule would adversely affect municipalities' ability to operate and maintain their stormwater systems . . . . The agencies' longstanding practice is to view stormwater control features that are not built in 'waters of the United States' as non-jurisdictional."

FACT: THE CLEAN WATER RULE DOES NOT REGULATE WATER IN TILE DRAINS

Rule Text § 230.3(s)(2)(v): "The following are not 'waters of the United States… groundwater, including groundwater drained through subsurface drainage systems."

FACT: THE CLEAN WATER RULE DOES NOT CHANGE POLICY ON WATER TRANSFERS

Preamble page 8: **"**The rule also does not … affect either the existing statutory or regulatory exemptions from NPDES permitting requirements, such as for… water transfers."

MORE INFORMATION AT WWW.EPA.GOV/CLEANWATERRULE

Tue Mar 14 15:06:32 EDT 2017
Hope.Brian@epamail.epa.gov
FW: Letter from ACWA, ASDWA, GWPC Concerning EPA-OMB Passback
To: CMS.OEX@epamail.epa.gov

For the Daily Reading File

From: Julian Gonzalez [mailto:jgonzalez@acwa-us.org]
Sent: Tuesday, March 14, 2017 2:42 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Cc: Julia Anastasio <janastasio@acwa-us.org>; Alan Roberson (aroberson@asdwa.org) <aroberson@asdwa.org>; Campbell, Ann <Campbell.Ann@epa.gov>; Mike Paque (mpaque@gwpc.org) <mpaque@gwpc.org>; Shapiro, Mike <Shapiro.Mike@epa.gov>
Subject: Letter from ACWA, ASDWA, GWPC Concerning EPA-OMB Passback

Dear Administrator Pruitt,

On behalf of the Association of Clean Water Administrators, the Association of State Drinking Water Administrators, and the Ground Water Protection Council, please see the attached letter discussing the EPA-OMB Budget Passback. As the letter states, all three organizations represent State water program administrators sharing your concern for improving the relationship between States and EPA, and implore you to consider the consequences to State programs of cutting funding which EPA provides directly to States.

Thank you, and if you have any questions please do not hesitate to contact Julia Anastasio at janastasio@acwa-us.org, Alan Roberson at aroberson@asdwa.org, or Mike Paque at mpaque@gwpc.org.

Sincerely,

Julian Gonzalez

ACWA Staff

March 14, 2017

The Honorable Mick Mulvaney
Director
Office of Management and Budget
Eisenhower Executive Office Building
1650 Pennsylvania Avenue, NW
Washington, DC 20460

The Honorable Scott Pruitt
Administrator
U.S. Environmental Protection Agency
William Jefferson Clinton Federal Building
1200 Pennsylvania Avenue, NW
Washington, DC 20503

Dear Director Mulvaney and Administrator Pruitt:

The Association of Clean Water Administrators ("ACWA") is the independent, nonpartisan, national organization of state, interstate, and territorial water program managers, who on a daily basis implement the water quality programs of the Clean Water Act ("CWA"). The Association of State Drinking Water Administrators ("ASDWA") is the professional Association serving and representing state drinking water programs implementing the Safe Drinking Water Act ("SDWA"). The Ground Water Protection Council ("GWPC") is a nonprofit organization whose members consist of state ground water regulatory agencies which come together within the GWPC organization to mutually work toward the protection of the nation's ground water supplies.

States are responsible, under the federal CWA, SDWA, and under each state's own laws and regulations, to advance the attainment of clean and healthy waters and to prevent violations of the requirements designed to support these goals. The recently publicized information concerning the OMB passback for the FY 2018 EPA budget, specifically the proposed 30% cut to State Tribal and Assistance Grants (STAG) categorical grants and any other cuts to EPA programs operated by states, is extremely concerning to state water programs; all of whom rely on the federal STAG as a critical funding source to daily implement essential permitting and compliance programs as expected by the citizens of their states and as required by law. It is paramount that EPA's budget reflect the importance of providing state programs with crucial grant funds, and that EPA provide flexibility for states to determine how to best use those funds.

Administrator Pruitt, we appreciate the fact that you have made cooperative federalism a point of emphasis when discussing EPA priorities for the new administration. Indeed, your remarks to EPA during your first day as Administrator reinforced in us your belief in the importance of the co-regulator relationship between EPA and states, as well as the importance of ensuring that EPA prioritizes working together with states as partners rather than adversaries. An important aspect of the state-federal relationship is supporting states in their role as the main implementers of the CWA and SDWA. A critical aspect of this support is providing necessary and adequate funding through federal grant programs to allow states to carry out those programs, utilize their local expertise and promote innovative approaches to regulation. According to Environmental Council of States (ECOS), states currently provide, on average, over half and sometimes as much as three quarters of core funding for their own environmental programs, and rely on federal funds to fill in remaining funding gaps. Should the FY 2018 EPA budget make drastic cuts to STAG categorical grants and other crucial state funding sources such as State Revolving Funds (SRFs), states will be severely limited in their ability to implement core water protection programs as required by the CWA and the SDWA and provide critically-needed infrastructure financing and technical assistance to struggling communities to ensure clean and available drinking water. Indeed, some states may be forced to relinquish certain programs back into the hands of EPA which will only decrease customer service and increase permit backlogs that will stall the expansion of America's economy.

Section 106 of the CWA authorizes funding to the states and Interstate Commissions to assist them in preventing, reducing, and eliminating pollution of the nation's waters. Section 1443 of the SDWA authorizes the Administrator to make grants to states to carry out public water system supervision programs. According to ECOS in 2013, the states implemented approximately 96.5% of federal environmental laws through delegated/authorized programs. State agencies also conduct 90% of all environmental inspections, enforcement actions, and data collection, and they issue the vast bulk of the permits needed to build, expand, or operate facilities such as manufacturing and industrial plants needed to expand our economy. Yearly budget data collected by the Congressional Research Service between 2004 and 2015 demonstrate that EPA grants to the states have been flat or, in real dollar terms, steadily declining since 2004. In 2015, categorical grants to the states were about 29% lower in inflation-adjusted dollars than they were in 2004. These grants provide baseline funding to ensure the health of our nation's water bodies and protection of public health.

Our communities depend on safe and reliable sources of drinking water and value it highly. We have come so far over the past 40-years as we have removed pollution sources that literally made the water different colors, or our rivers burn. Fish kills, toxic releases of pollutants, and fumes from industrial sources – at one time- literally peeled the paint off of nearby houses. To us and our member states, STAG funding is critical to maintaining and continuing with these improvements, this funding goes beyond simply fulfilling legislative requirements. This is a pivotal time for us to sustain and build upon the critical relationship and responsibilities shared between EPA and the states. The obstacles that states and EPA face to improving water quality in our nation's waterways and drinking water systems are both complex and cost-intensive, and reductions to critical funding are counter-productive to both ensuring clean, healthy water, and providing states with the flexibility to implement regulations cost-effectively.

We look forward to continuing discussions about CWA and SDWA program funding and the co-regulator relationship between states and EPA. Should you have additional questions, do not hesitate to contact any of us.

Sincerely,

Julia Anastasio

Executive Director
Association of Clean Water Administrators

Alan Roberson

Executive Director
Association of State Drinking Water Administrators

Mike Paque

Executive Director
Ground Water Protection Council

Cc: Mike Shapiro, U.S. Environmental Protection Agency

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR - 6 2017

OFFICE OF WATER

Ms. Julia Anastasio
Association of Clean Water Administrators
1221 Connecticut Ave., NW
Washington, D.C. 20036

Dear Ms. Anastasio:

Thank you for your March 14, 2017, letter to Administrator Pruitt regarding the recently publicized information on to the fiscal year 2018 Environmental Protection Agency budget, specifically the State Tribal and Assistance Grants categorical grants.

The EPA acknowledges the importance of categorical grant funding under the STAG appropriation, which includes provisions for financial assistance to states, interstate associations and tribal governments to fund drinking water and clean water programs. While the EPA is committed to supporting states in their role as the main implementers of the Clean Water Act and the Safe Drinking Water Act, we also recognize that the President's budget request must weigh a variety of needs in addressing key national priorities.

Again, thank you for your letter. If you have further questions, please contact me or Peter Grevatt, Director of the Office of Ground Water and Drinking Water, at Grevatt.Peter@epa.gov or (202) 564-3750.

Sincerely,

Michael H. Shapiro
Acting Assistant Administrator

Internet Address (URL) • http://www.epa.gov
Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Postconsumer, Process Chlorine Free Recycled Paper

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR - 6 2017

OFFICE OF WATER

Mr. Mike Paque
Ground Water Protection Council
(b) (6)

Dear Mr. Paque:

Thank you for your March 14, 2017, letter to Administrator Pruitt regarding the recently publicized information on to the fiscal year 2018 Environmental Protection Agency budget, specifically the State Tribal and Assistance Grants categorical grants.

The EPA acknowledges the importance of categorical grant funding under the STAG appropriation, which includes provisions for financial assistance to states, interstate associations and tribal governments to fund drinking water and clean water programs. While the EPA is committed to supporting states in their role as the main implementers of the Clean Water Act and the Safe Drinking Water Act, we also recognize that the President's budget request must weigh a variety of needs in addressing key national priorities.

Again, thank you for your letter. If you have further questions, please contact me or Peter Grevatt, Director of the Office of Ground Water and Drinking Water, at Grevatt.Peter@epa.gov or (202) 564-3750.

Sincerely,

Michael H. Shapiro
Acting Assistant Administrator

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR - 6 2017

OFFICE OF WATER

Mr. Alan Roberson
Association of State Drinking Water Administrators
1401 Wilson Blvd.
Arlington, Virginia 22209

Dear Mr. Roberson:

Thank you for your March 14, 2017, letter to Administrator Pruitt regarding the recently publicized information on to the fiscal year 2018 Environmental Protection Agency budget, specifically the State Tribal and Assistance Grants categorical grants.

The EPA acknowledges the importance of categorical grant funding under the STAG appropriation, which includes provisions for financial assistance to states, interstate associations and tribal governments to fund drinking water and clean water programs. While the EPA is committed to supporting states in their role as the main implementers of the Clean Water Act and the Safe Drinking Water Act, we also recognize that the President's budget request must weigh a variety of needs in addressing key national priorities.

Again, thank you for your letter. If you have further questions, please contact me or Peter Grevatt, Director of the Office of Ground Water and Drinking Water, at Grevatt.Peter@epa.gov or (202) 564-3750.

Sincerely,

Michael H. Shapiro
Acting Assistant Administrator

Internet Address (URL) • http://www.epa.gov
Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Postconsumer, Process Chlorine Free Recycled Paper

Tue Mar 14 17:42:42 EDT 2017
Hope.Brian@epamail.epa.gov
FW: Aluminum Water Quality Criteria Revisions
To: CMS.OEX@epamail.epa.gov

For the Daily Reading File, even though it is a CC.

From: Curt Wells [mailto:cwells@aluminum.org]
Sent: Tuesday, March 14, 2017 3:34 PM
To: Shapiro, Mike <Shapiro.Mike@epa.gov>
Cc: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: Aluminum Water Quality Criteria Revisions

Mike –

Attached please find a letter from the Aluminum Association's Water Workgroup regarding EPA's ongoing activity to update the Aluminum Water Quality Criteria. A hardcopy of this same letter is in the US Mail to you as well.

Thanks.

Curt Wells

Director, Regulatory Affairs

The Aluminum Association

1400 Crystal Drive, Suite 430

Arlington, VA 22202

T 703.358.2976 | **C** 804.385.6351| **F** 703.894.4938

JOIN THE CONVERSATION:

Save the Date: Aluminum Association Spring Meeting March 27-29, 2017

p 703.358.2960
f 703.894.4938
Suite 430
1400 Crystal Drive
Arlington, Virginia 22202
www.aluminum.org

The Aluminum Association

March 14, 2017

Submitted via email and the US Postal Service

Mike Shapiro
US Environmental Protection Agency
Office of Water Programs
William Jefferson Clinton Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460

RE: **Aluminum Water Quality Criteria Revisions**

Dear Mike –

I am writing today to advise you of two initiatives currently underway within the EPA Office of Water that are of significant interest and importance to the Aluminum Association and the broader aluminum manufacturing industry in the US at large.

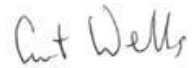
The first of these is an initiative to revise the water quality standards for aluminum. The current standards were implemented in 1988, are only applicable within a narrow pH range, and are not reflective of the current state of the science on aluminum toxicity in water. Recognizing this, EPA has worked to update its database on aluminum toxicity using data developed both by EPA and as supplied by the aluminum industry from testing performed in the US. Based on these new data, the Association is shortly expecting an updated draft Ambient Water Quality Criteria Document to be issued by EPA and noticed in the Federal Register for public comment. As understood by the Association, the new draft criteria document may include the use of a Biotic Ligand Model (BLM) similar in concept to what EPA implemented for copper in 2007 or a simpler Multi-Linear Regression (MLR) model which would yield essentially similar results to the BLM but with less calculation complexity. The Association and the broader aluminum industry await with interest the public notice on the draft criteria and use of these models as we believe that they will be a step forward in modeling the actual impact of aluminum present across varying concentrations in US waterbodies. The benefit derived from the models is that they allow for water quality standards to be set by the States that are protective for different water chemistries across the US.

A second initiative that the industry is engaged with EPA on is the modification of the current analytical test method for aluminum content in water to accurately represent only the bioavailable fraction of the total aluminum present. Present test methods measure either total aluminum in a water sample, including a significant fraction derived from suspended sediments, which is not bioavailable, or the dissolved fraction, which may under-represent the amount actually bioavailable. Developing a bioavailable aluminum test method is an important step in obtaining appropriate data for input into the EPA models and for regulatory compliance in effluent permits. The method development work is being supported by the aluminum industry in consultation with the Office of Water's Health and Ecological Criteria Division and the Office of Water's Test Methods Group.

Both of the initiatives discussed above are being pursued through a collaborative approach between the EPA Office of Water and the Aluminum Association as they achieve mutually beneficial goals in terms of ensuring that current science and representative site-specific data are used in determining the water quality standards for aluminum that are most applicable to the nation's waterways.

We are supportive of the direction the EPA's Office of Water is going in regards to the aluminum criteria update and hope the information above is helpful to you in understanding the importance to the aluminum industry of these ongoing efforts. If you have any questions or would like to discuss any part of this information in greater detail, please do not hesitate to contact the chairman of the Association's water workgroup, Denny Wene with Arconic at (812) 204-3480, dennis.wene@arconic.com or me at 703-358-2976, cwells@aluminum.org.

Sincerely,



Curt Wells
Director, Regulatory Affairs
The Aluminum Association

Cc: Scott Pruitt – EPA Administrator

Denny Wene - Arconic

Bill Adams – Red Cap Consulting

p 703.358.2960
f 703.894.4938
Suite 430
1400 Crystal Drive
Arlington, Virginia 22202
www.aluminum.org

The Aluminum Association

March 14, 2017

Submitted via email and the US Postal Service

Mike Shapiro
US Environmental Protection Agency
Office of Water Programs
William Jefferson Clinton Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460

RECEIVED
2017 MAR 20 PM 1:48
OFFICE OF THE
EXECUTIVE SECRETARIAT

RE: **Aluminum Water Quality Criteria Revisions**

Dear Mike –

I am writing today to advise you of two initiatives currently underway within the EPA Office of Water that are of significant interest and importance to the Aluminum Association and the broader aluminum manufacturing industry in the US at large.

The first of these is an initiative to revise the water quality standards for aluminum. The current standards were implemented in 1988, are only applicable within a narrow pH range, and are not reflective of the current state of the science on aluminum toxicity in water. Recognizing this, EPA has worked to update its database on aluminum toxicity using data developed both by EPA and as supplied by the aluminum industry from testing performed in the US. Based on these new data, the Association is shortly expecting an updated draft Ambient Water Quality Criteria Document to be issued by EPA and noticed in the Federal Register for public comment. As understood by the Association, the new draft criteria document may include the use of a Biotic Ligand Model (BLM) similar in concept to what EPA implemented for copper in 2007 or a simpler Multi-Linear Regression (MLR) model which would yield essentially similar results to the BLM but with less calculation complexity. The Association and the broader aluminum industry await with interest the public notice on the draft criteria and use of these models as we believe that they will be a step forward in modeling the actual impact of aluminum present across varying concentrations in US waterbodies. The benefit derived from the models is that they allow for water quality standards to be set by the States that are protective for different water chemistries across the US.

A second initiative that the industry is engaged with EPA on is the modification of the current analytical test method for aluminum content in water to accurately represent only the bioavailable fraction of the total aluminum present. Present test methods measure either total aluminum in a water sample, including a significant fraction derived from suspended sediments, which is not bioavailable, or the dissolved fraction, which may under-represent the amount actually bioavailable. Developing a bioavailable aluminum test method is an important step in obtaining appropriate data for input into the EPA models and for regulatory compliance in effluent permits. The method development work is being supported by the aluminum industry in consultation with the Office of Water's Health and Ecological Criteria Division and the Office of Water's Test Methods Group.

Both of the initiatives discussed above are being pursued through a collaborative approach between the EPA Office of Water and the Aluminum Association as they achieve mutually beneficial goals in terms of ensuring that current science and representative site-specific data are used in determining the water quality standards for aluminum that are most applicable to the nation's waterways.

We are supportive of the direction the EPA's Office of Water is going in regards to the aluminum criteria update and hope the information above is helpful to you in understanding the importance to the aluminum industry of these ongoing efforts. If you have any questions or would like to discuss any part of this information in greater detail, please do not hesitate to contact the chairman of the Association's water workgroup, Denny Wene with Arconic at (812) 204-3480, dennis.wene@arconic.com or me at 703-358-2976, cwells@aluminum.org.

Sincerely,

Curt Wells

Curt Wells
Director, Regulatory Affairs
The Aluminum Association

Cc: Scott Pruitt – EPA Administrator

Denny Wene - Arconic

Bill Adams – Red Cap Consulting

Tue Mar 14 17:54:54 EDT 2017
Hope.Brian@epamail.epa.gov
FW: NAK VETO lift needs prompt attention from Trump donors
To: CMS.OEX@epamail.epa.gov

From: Henry Moon [mailto:hmoon@ceibs.edu]
Sent: Tuesday, March 14, 2017 10:56 AM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: NAK VETO lift needs prompt attention from Trump donors
Importance: High

Mr. Pruitt,

I want to alert you that 1000s of small investors; most of whom are Trump supporters are losing their life savings as Northern Dynamic Mineral's stock is being destroyed by Shorts and Environmentalists. Please stop dithering on the illegal VETO of this company by the EPA.

I was a large donor to President Trump and believed that his administration would actually DO something rather than give speeches with lame platitudes from people like Yogi Berra. What the hell is wrong with you? Please act and stop talking

Henry Moon Ph.D.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

APR 5 2017

Luis Figueroa Nieves, President
The Battery Recycling Company, Inc.
PR2, Km 72.2
Arecibo, Puerto Rico 00612

Dear Mr. Figueroa:

The U.S. Environmental Protection Agency (EPA) is in receipt of your two email communications addressed to EPA Administrator Scott Pruitt and your Congressional Representative, Jennifer Gonzalez, dated March 14 and 15, 2017. The emails have been referred to me for reply.

In your emails, you questioned cleanup activities by EPA at the Battery Recycling Site (the "Site") in Arecibo, Puerto Rico, and the costs incurred by EPA and The Battery Recycling Company, Inc. (TBRC) to clean up lead contamination there. You also asserted that EPA has delayed TBRC's sale of one of two furnaces at the Site, and discussed the possibility of reopening your facility in the future.

As you know, since 2011, EPA Region 2 has been working with you and your company to clean up lead contamination caused by TBRC's operations. We have done so pursuant to federal environmental laws, including the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA) (also known as the Superfund law).

On June 7, 2011, EPA and TBRC entered into an administrative Settlement Agreement and Order on Consent under CERCLA for the removal of, among other things, lead-contaminated soil in a cattle pasture adjacent to the facility, as well as lead from the facility that had been tracked into the vehicles and homes of TBRC employees. As you know, some of the children of TBRC employees were found to have significantly elevated blood lead levels. On February 21, 2012, EPA and TBRC entered into a Consent Agreement and Final Order pursuant to the Solid Waste Disposal Act, as amended. The Agreement required full enclosure of furnaces and baghouses at the Site, among other requirements. Throughout EPA's negotiation of these settlements, EPA's objective was to ensure the continued compliance by TBRC with environmental laws, while the company remained in operation.

In the spring of 2014, TBRC temporarily shut down operations due to the economic downturn of the secondary lead market. TBRC failed to comply with the 2012 Consent Agreement and did not comply with portions of the 2011 Settlement Agreement. In September 2014, EPA therefore took over the remainder of the removal work called for under the 2011 Agreement.

Following the temporary shutdown of TBRC's operations, EPA assessments conducted under CERCLA between January and April 2016, which evaluated further removal activities and the

proposed listing of the Site on the Superfund National Priorities List, indicated elevated levels of lead contamination throughout the Site, including in surface water runoff and in fugitive emissions from the movement of lead slag piles. EPA has been conducting additional cleanup actions, including controlling lead-contaminated storm water and removal of lead slag piles. To date, EPA has incurred costs of approximately $9.8 million to address the hazardous conditions at the Site. EPA has determined that substantial additional cleanup work will be necessary, and so the Site was proposed for listing on the National Priorities List on September 9, 2016.

In March 2016, EPA learned that you were attempting to remove and sell TBRC equipment from the Site without proper decontamination, although you had been informed of EPA's ongoing Site assessments and the elevated levels of lead contamination throughout the Site. As a result, in May 2016, EPA issued an administrative order under CERCLA to TBRC, as well as to you and your wife as owners of the Site real property, to prevent the removal of equipment or other assets from the Site without prior decontamination. EPA has been working with you since then to establish appropriate decontamination procedures in order to allow material to be removed from the Site. EPA has commented repeatedly on your proposed Decontamination Work Plan. To date, EPA has not approved the plan, for reasons including the need for TBRC to propose a final disposal location for the waste that can be approved by EPA.

In recent months, EPA, TBRC and FirstBank Puerto Rico (FirstBank), the holder of security interests in real property and equipment at the Site, have been negotiating an agreement under Section 122(h) of CERCLA (the "Cost Agreement") for, among other things, the sale of nearly all of TBRC's equipment at the Site, with payment of some of the proceeds to EPA, in partial reimbursement of EPA's past response costs. TBRC and FirstBank are separately entering into an agreement for the sale of the smaller of two furnaces at the Site, with FirstBank to receive a portion of the proceeds from the sale. As you know, that furnace is heavily contaminated with lead. Therefore, its sale and removal from the Site should not occur before the Decontamination Work Plan is approved by EPA. EPA urges you to complete the plan promptly.

EPA is awaiting final responses from you and FirstBank on the draft Cost Agreement, a further draft of which EPA sent to the parties on March 15, 2017, and the Decontamination Work Plan, comments on which were sent to you on December 21, 2016. The outstanding issues on the Decontamination Work Plan must be resolved before EPA can finalize and sign the Cost Agreement. EPA has worked diligently to negotiate the Cost Agreement with both TBRC and FirstBank and to provide revised drafts of the Agreement to the parties as swiftly as possible. EPA hopes to hear from your attorney and FirstBank soon so that the negotiations on the terms of the document can be concluded.

You also stated in your email that you would like to reopen operations at the Site. As you know, the Commonwealth of Puerto Rico has withdrawn TBRC's permits to operate as a lead smelter. In addition, as noted above, the Site is contaminated with lead, and EPA's cleanup actions are ongoing. To the extent that you or your company are permitted to reopen operations at the facility, it is, of course, essential that no recontamination of the Site occur.

If you would like to discuss this matter further, please contact John Prince, Acting Director of the Emergency and Remedial Response Division, at 212-637-4380, or have your attorney contact Argie Cirillo of our Office of Regional Counsel at 212-637-3178.

Sincerely,

for Catherine R. McCabe
Acting Regional Administrator

Tue Mar 14 17:55:24 EDT 2017
Hope.Brian@epamail.epa.gov
FW: Case with EPA
To: CMS.OEX@epamail.epa.gov

From: Info Battery [mailto:info@batteryrec.com]
Sent: Tuesday, March 14, 2017 10:45 AM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>; jenniffer.gonzalez@mail.house.gov
Cc: 'Carlos Colón Franceschi' <ccf@tcmrslaw.com>; Cirillo, Argie <Cirillo.Argie@epa.gov>
Subject: Case with EPA

Buenos días:

Me dirijo a ustedes muy respetuosamente para ver de qué forma pueden ayudar a reabrir operaciones de The Battery Recycling Company (TBR) en Arecibo, Puerto Rico.

The Battery Recycling Company cerró operaciones por exigencias de EPA ya que ellos cambiaron los estándares de plomo los cuales no pudimos cumplir en el tiempo que ellos dieron. Para cumplir con esos nuevos estándares, la compañía tenía que invertir sobre $3,000,000.00 los cuales no tenía disponible. La EPA ha gastado mucho más de esa cantidad en una limpieza que están realizando en las facilidades. Si a ese dinero se le hubiese buscado la forma de allegarse a TBR para luego ser reembolsado, TBR todavía estuviese operando y se le habría pagado los $3,000,000.00 a la EPA y el costo de la EPA sería 0. Esta compañía llegó a crear 150 empleos.

L a compañía todavía está en condiciones para reabrir operaciones pero no ha podido porque por el cierre de operaciones se quedó sin capital. En equipos, la compañía tiene sobre $20,000,000.00 los cuales se perderán si no se reabre la operación.

Tenía una venta de uno de los hornos hace más de 16 meses y estoy tratando con EPA para que me dé la autorización y por su burocracia no han dado la autorización para la venta. Con la venta del horno la compañía se liberaría de la deuda con el banco y fuera mucho más fácil conseguir un inversionista para reabrir operaciones pero no se ha dado por las razones que solo sabe la EPA.

La venta del horno ser realizó y el cliente estuvo en Puerto Rico con 5 oficiales de su compañía y el día antes de la firma de la venta la Lic. Argie Cirillo de EPA se comunicó con los abogados del banco para detener la transacción. No sé si los clientes siguen interesados en el negocio ya que ellos invirtieron mucho dinero en la transacción.

No sé cuáles son los parámetros de la EPA para seguir gastando dinero cuando la facilidad se puede reabrir. Entiendo que pronto la compañía estará en un listado de Superfund.

TBR es una compañía de capital local y está listado como una compañía minoritaria. Yo sé que este es un trabajo difícil de plantear ya que TBR no tiene cabilderos como tienen otras compañías para buscarle solución a este problema, pero el esfuerzo que ustedes pongan en este proyecto será gratificado con un mejor Puerto Rico.

El caso lo tiene EPA Región 2, la Lic. Argie Cirillo. Si tiene alguna duda o necesita más información puede comunicarse con este servidor preferiblemente al celular 787-635-7840 o mi email lrfigueroa@batteryrec.com

Translated by Google translator

Good morning:

I am writing to you very respectfully to see how they can help reopen operations of The Battery Recycling Company (TBR) in Arecibo, Puerto Rico.

The Battery Recycling Company closed operations for EPA requirements since they changed lead standards which we could not meet in the time they gave. To meet these new standards, the company had to invest over $ 3,000,000.00 which it did not have available. The EPA has spent much more of that amount on a cleanup they are performing at the facilities. If that money had been sought for a way to join TBR and then be reimbursed, TBR would still be operating and the $ 3,000,000.00 would have been paid to the EPA and the cost of the EPA would be 0. This company created 150 jobs.

The company is still in a position to reopen operations but has not been able to do so because of the closure of operations it ran out of capital. In teams, the company has over $ 20,000,000.00 which will be lost if the operation is not reopened.

I had a sale of one of the ovens over 16 months ago and I am dealing with EPA to get the authorization and because of their bureaucracy they have not given the authorization for the sale. With the sale of the furnace the company would be freed from debt with the bank and it would be much easier to get an investor to reopen operations but it has not been given for the reasons known only to the EPA.

The sale of the furnace was carried out and the client was in Puerto Rico with 5 officers of his company and the day before the signing of the sale, Argie Cirillo of EPA contacted the bank's lawyers to stop the transaction. I do not know if customers are still interested in the business since they invested a lot of money in the transaction.

I do not know what the EPA's parameters are to continue spending money when the facility can be reopened. I understand that the company will soon be on a Superfund listing.

TBR is a local capital company and is listed as a minority company. I know this is a difficult job to raise since TBR does not have lobbyists like other companies have to find a solution to this problem, but the effort you put into this project will be rewarded with a better Puerto Rico.

The case has EPA Region 2, Ms. Argie Cirillo.If you have any questions or need more information you can contact this server preferably to my phone 787-635-7840 or my email lrfigueroa@batteryrec.com

Regards,

Luis R. Figueroa, President
The Battery Recycling Company
Tel (787) 880-5373
Cel (787) 635-7840
Email: lrfigueroa@batteryrec.com

6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 22, 51, 124, 171, 300, and 770

[FRL–9960-28–OP]

Further Delay of Effective Dates for Five Final Regulations Published by the Environmental Protection Agency Between December 12, 2016 and January 17, 2017

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule; further delay of effective dates.

SUMMARY: In accordance with the Presidential directive as expressed in the memorandum of January 20, 2017, from the Assistant to the President and Chief of Staff, entitled "Regulatory Freeze Pending Review," and the **Federal Register** document published by EPA on January 26, 2017, EPA is further delaying the effective dates for the five regulations listed in the table below.

DATES: This regulation is effective March 21, 2017. The effective date of each regulation listed in the table below is delayed to a new effective date of May 22, 2017.

FOR FURTHER INFORMATION CONTACT:

Sarah Rees, Director, Office of Regulatory Policy and Management, Office of Policy, Mail code 1804, U.S. Environmental Protection Agency, 1200 Pennsylvania Ave NW., Washington, DC 20460; (202) 564–1986; *rees.sarah@ epa.gov.*

SUPPLEMENTARY INFORMATION: On January 26, 2017, EPA published a document in the Federal Register entitled "Delay of Effective Date for 30 Final Regulations Published by the Environmental Protection Agency Between October 28, 2016 and January 17, 2017" (82 FR 8499) (January 26 Document). In that document, EPA delayed the effective dates of the five regulations listed in the table below to March 21, 2017, as requested in the memorandum of January 20, 2017, from the Assistant to the President and Chief of Staff, entitled "Regulatory

Freeze Pending Review" (January 20 Memo). That memo directed the heads of Executive Departments and Agencies to temporarily postpone for 60 days from the date of the January 20 Memo the effective dates of all regulations that had been published in the **Federal Register** but had not yet taken effect.

The January 20 Memo also directs that where appropriate and as permitted by applicable law, agencies should consider a rule to delay the effective date for regulations beyond that 60-day period. In this document, EPA is taking action to further delay the effective dates for five regulations listed in the table below until May 22, 2017. EPA is taking this action to give recently arrived Agency officials the opportunity to learn more about these regulations and to decide whether they would like to conduct a substantive review of any of those regulations. If Agency officials decide to conduct a substantive review of any of those regulations, EPA will take appropriate actions to conduct such a review, including, but not limited to, issuing a document in the **Federal Register** addressing any further delay of the effective date of such regulation. If Agency officials decide not to conduct a substantive review of a regulation listed in the table below, it will become effective on May 22, 2017.

The Agency's implementation of this action without opportunity for public comment is based on the good cause exception in 5 U.S.C. 553(b)(B). (The good cause exception is also referenced in section 307(d) of the Clean Air Act (CAA).) The Agency has determined that seeking public comment is impracticable, unnecessary and contrary to the public interest. The further temporary delay in effective date until May 22, 2017, is necessary to give Agency officials the opportunity to decide whether they would like to conduct a substantive review of the five regulations, consistent with the January 20 Memo. The intent of the January 20 Memo was to delay the effective dates of rules that had recently been promulgated to give the new

Administration time to review them. When that delay was implemented through the January 26 Document, the EPA believed 60 days would be sufficient time for incoming Agency officials to review rules recently promulgated by the EPA. However, given the length of the confirmation process for the EPA Administrator and the fact that the Agency lacks Senate-confirmed officials elsewhere, the new Administration has not had the time contemplated by the January 20 Memo for this review. Thus, the EPA is deferring the effective date for the five regulations listed in the table below for another 62 days to allow Agency officials to conduct this review. Given the imminence of the effective date, seeking prior public comment on this further temporary delay would be impractical, as well as contrary to the public interest in the orderly promulgation and implementation of regulations. Specifically, the Agency has been faced with circumstances beyond its control; as was the case on January 26, it is difficult to predict when the appropriate officials might assume their responsibilities. Indeed, as noted above, even today the EPA has only one Senate-confirmed official in place. Furthermore, allowing these regulations to go into effect without first deciding whether to undertake a substantive review may create public confusion. In addition, to the extent this extension is a procedural rule, it is exempt from notice and comment under 5 U.S.C. 553(b)(A), which is also referenced in CAA section 307(d).

Federal Register Citation	Title	Publication Date	Original Effective Date	New Effective Date
82 FR 2760	Addition of a Subsurface Intrusion Component to the Hazard Ranking System	1/9/17	2/8/2017	5/22/2017
81 FR 89674	Formaldehyde Emission Standards for Composite Wood Products	12/12/16	2/10/2017	5/22/2017
82 FR 5182	Revisions to the Guideline on Air Quality Models: Enhancements to the AERMOD Dispersion Modeling System and Incorporation of Approaches to Address Ozone and Fine Particulate Matter	1/17/17	2/16/2017	5/22/2017

82 FR 952	Pesticides; Certification of Pesticide Applicators	1/4/17	3/6/2017	5/22/2017
82 FR 2230	Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties, Issuance of Compliance or Corrective Action Orders, and the Revocation/ Termination or Suspension of Permits; Procedures for Decisionmaking	1/9/17	3/10/2017	5/22/2017

For the foregoing reasons, the EPA relies on the good cause exceptions in 5 U.S.C. 553(b)(B) and 553(d)(3) to make today's action effective on March 21, 2017.

Dated: 3/14/2017

E. Scott Pruitt,
Administrator.

BILL SCHUETTE

2/26/17

Dear Scott-

I was supposed to have said a few words tonight about you. But, the advance work got messed up. I had worked on my remarks. They were to have been like this:

"Scott Pruitt is a big leaguer, a major leaguer. Pres. Trump hit a home run when he nominated Scott. Scott's drive and intellect will stand out. Scott Pruitt will be the Cy Young award winner of the Trump Administration. I wrote an editorial for the Detroit News and the headline was "Hire Scott Pruitt to stop SPA overreach" Donald Trump made a great hire."

So, congratulations. Cynthia and I are delighted for you. An honor to have served with you.

All the Best, Bill

General —

Thank you for your very kind note... It blessed me immensely. Your friendship, too, blesses and encourages me — and I — thankful for it. Godspeed my friend!

Jack

Dear Ivanka –

Great to spend time together yesterday . . . Please know I very much enjoyed the dialogue and fellowship! I look forward to the next opportunity!

Scott

United States
Environmental Protection Agency
Washington, D.C. 20460

March 14, 2017

The Administrator

The Honorable James Carr
Minister of Natural Resources
580 Booth Street
Ottawa, Ontario KIA OEY
Canada

Dear James:

It was a pleasure meeting with you last week. I love talking with a fellow baseball enthusiast!

Our time together was very helpful to me, and I appreciate the time you spent providing me with your point of view. I am hopeful that we can work out some of the questions and issues discussed.

I truly look forward to our working on matters of mutual interest, and to seeing you soon in DC.

Sincerely

Scott

Scott Pruitt

Look Forward to seeing you soon!

Willowbend Investments, Inc.

4000 Henry S. Grace Freeway
Wichita Falls, Texas 76302

P. O. Box 2052
Wichita Falls, Texas 76307

(940) 322-8290
T. Lee Murchison
President

March 6, 2017

Hon. Scott Pruitt, Administrator
U.S. Environmental Protection Agency
Office of the Administrator, 1101A
1200 Pennsylvania Avenue, N.W.
Washington D.C. 20460

Re: Appreciation of Withdrawal of Information Collection Request for Existing Oil and Gas Facilities, EPA ICR No. 2548.01

Dear Administrator Pruitt:

Willowbend Investmetns Inc. wishes to express our appreciation and gratitude for your Administration's decision to withdraw ICR No. 2548.01. Compliance with this ICR was causing a burden on our small business's staff. We hope you will continue what seems to be a common-sense policy of lessening unnecessary burdens on small businesses.

Sincerely,

Sandy Robertson

Sandy Robertson
Willowbend Investments, Inc.

RECEIVED
2017 MAR 15 AM 7:39
OFFICE OF THE
EXECUTIVE SECRETARIAT

RECEIVED
2017 MAR 15 AM 7:39
OFFICE OF THE
EXECUTIVE SECRETARIAT

Abigail Taylor
(b) (6)

November 23, 2016

Mr. Michaels
Occupational Safety and Health Administration
Environmental Protection Agency
200 Constitution Ave. NW.
Washington, DC 20460-0001

Dear Mr. Michaels:

I am writing you today to voice my opinion on the revisions to the Worker's Protection Standards that were made in November 2015, and will be implemented by January 2018[1]. I have read the new revisions that were made and found a concern. When discussing the new regulations regarding notification of workers, I noticed that employers need to train their workers on such things as environmental concerns, procedures, and health concerns[2]. I wanted to send you this appeal to request that workers are guaranteed the right to a doctor if they are presenting symptoms of pesticide contamination.

Many workers are either illegal immigrants to the United States or are living off a small income without any health insurance[3]. You are educating them on how and when to receive medical attention, but to what great risk are workers willing to seek that help. For most of them, this is their only source of income, so if they become sick they could be replaced or miss work. At the risk of losing their job, workers likely don't want to come forward if they have become ill from contamination. There are a few ways that I can think of that will help solve this problem and positively influence the agricultural industry.

I think that routine health checks should be implemented into this document to maintain workers' health. With routine health checks, workers will gain trust in their employers and not need to take many sick days. All migrant farmworkers who are lawfully present in the US may receive coverage under the Affordable Care Act and are in fact mandated to have minimal essential coverage[4]. Taxpayers could also provide money to fund this project. This will also help with job security, and boost the American economy because workers will have more money to spend. It is in the best interests not only for the workers, but also their employers for medical personnel to be accessible.

Thank you for your consideration and taking the time to read my concerns. I think that the revisions made to the Standards are heading in the right direction. While more improvements can be made, this is a good foundation and place to start.

Sincerely,

Abigail Taylor

References

1. "Pesticide Safety." *Farmworker Justice*. N.p., n.d. Web. Nov. 2016. <https://www.farmworkerjustice.org/content/pesticide-safety>.
2. "Pesticides; Agricultural Worker Protection Standard Revisions." *Federal Register*. National Archives and Records Administration, 02 Nov. 2015. Web.
3. Zong, Jie, and Jeanne Batalova. "Frequently Requested Statistics on Immigrants and Immigration in the United States." *Migration Policy Institute*. N.p., 14 Apr. 2016. Web.
Health Care Access
4. http://www.migrantclinician.org/issues/migrant-info/migrant.html

MICHELIN

RECEIVED
2017 MAR 15 AM 7:38
OFFICE OF THE
EXECUTIVE SECRETARIAT

March 6, 2017

Mr. Edward Scott Pruitt
Administrator
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Administrator Pruitt:

Congratulations on being confirmed as Administrator of the Environmental Protection Agency. While Michelin will miss your leadership in Oklahoma, we have every confidence that your successful experience serving in the state has prepared you well for leading this important Agency.

Michelin was fortunate to work with you during your days in the Oklahoma State Senate and most recently in your role as Oklahoma Attorney General. We have always appreciated your support of our issues in Oklahoma and the opportunity to work with you in your leadership role with the American Legislative Exchange Council "ALEC". I am also reminded by our Michelin team of your visit to our North American headquarters here Greenville, SC and the time you took to better understand our manufacturing operations.

I look forward to meeting with you in Washington to discussing environmental issues of importance to our company and to hosting you again in Greenville or Oklahoma whenever your schedule permits.

Again, congratulations!

Sincerely,

Pete Selleck
Chairman and President
Michelin North America, Inc.

Michelin North America, Inc.

One Parkway South
Greenville, South Carolina 29615
Tel: 864/458-5000

RONALD D. STEPHENS
ATTORNEY AT LAW
STATE BAR NO. 19160000
POST OFFICE BOX 1269
GRAHAM, TEXAS 76450
(940) 549-2165

RECEIVED
2017 MAR 15 AM 8:26
OFFICE OF THE
EXECUTIVE SECRETARIAT

February 6, 2017

Mr. Scott Pruitt
Administrator, U. S. Environmental Protection Agency
Office of the Administrator 1101A
1200 Pennsylvania Ave., N. W.
Washington, D. C. 20460

Re: Texas Alliance of Energy Producers
Memo on ICR

Dear Sir:

The official action of your agency under your leadership is to be commended for its recent action in withdrawing or cancelling any actions in connection with the Information Compliance Request (ICR). Untold hours have been expended by personnel of two small companies that I have relations with. Most of the information requested was available through other agencies and/or departments of the government and were unnecessary requests. So much of the information was posed in a manner that appeared to be intentionally burdensome and cost prohibitive.

Thank you for exercising some judicial action and a reasonable approach.

Yours very truly,

Ronald D. Stephens

Ronald D. Stephens

RDS/j

Wed Mar 15 08:56:18 EDT 2017
Hope.Brian@epamail.epa.gov
FW: EPA response to your Feb. 25, 2017 email
To: CMS.OEX@epamail.epa.gov

Process as an FYI

From: will rogers [mailto: (b) (6)
Sent: Tuesday, March 14, 2017 10:21 PM
To: Wampler, David <Wampler.David@epa.gov>; Pruitt, Scott <Pruitt.Scott@epa.gov>; Rick Libby < (b) (6) Ron Sullenger <rsullenger@co.sutter.ca.us>; Amanda Hopper <ahopper@co.sutter.ca.us>; Lisa Van De Hey <lvandehey@gridleyherald.com>; Steve Miller < (b) (6) Harold Kruger < (b) (6) Lou Binninger < (b) (6) Jim Whiteaker <jwhiteaker@co.sutter.ca.us>; Larry Munger <lmunger@co.sutter.ca.us>; Sutter Buttes Tea Party <sbtp@syix.com>; Chuck and Pat Miller < (b) (6) Carla Virga <weebler@syix.com>; Ryan Sabalow <rsabalow@sacbee.com>; Dale Kasler <dkasler@sacbee.com>; Steve Geiger <sgeiger@co.sutter.ca.us>; Matthew@Waterboards Buffleben <matthew.buffleben@waterboards.ca.gov>; Bryan@Waterboards Elder <bryan.elder@waterboards.ca.gov>
Subject: Re: EPA response to your Feb. 25, 2017 email

Dear Wampler,

First, who asked you to provide the response ?

Second, if you took it serious then you would do a thorough investigation which means seating down with myself, neighbors and Rick Libby and you would do extensive sampling and testing of Morris Property and adjacent properties.

How is it honest that PG&E was claiming that the waste water was going to be used as an irrigation supply especially when they basically had the so called irrigation system constructed to basically discharge uphill with a slotted pipeline during months that Morris does not irrigate ?

The property basically drains to the south and the drainage ditch which the slotted pipeline is constructed along drains to the south but they planned to basically discharge toward the north because the conveyance pipeline was connected to the slotted pipeline at the southern end of the property. If it was for irrigation it would have been connected much farther north and at the approximate location that Morris pumps are located. The property irrigates outward away from his pumps which is not the way that PG&E had the system setup but if they would have set it up as approved of in the NOI then it would have.

The first person who actually noticed the pipeline is a former member of the community who has worked on the Sutter County General Plan, is a former Grand Jury Member and is a local Conservative farmer / rancher who said that it appears that the pipeline was just a decoy while they were discharging into the ditch and took photos which appear to show that the facility was leaking, spilling and discharging.

Those photos were taken approximately 2 weeks after dry weather in extreme drought conditions and pretty clearly show that the surrounding properties were dry while the location around the facility was wet and muddy.

Will you please explain this to me especially since I have recently taken photos of this location which basically contradict that storm water does not stay standing / ponded at this location after approximately 2 weeks of dry weather in extreme drought conditions and that this location dries out faster then the surrounding properties.

These photos were taken when it was colder, damper, wetter and according to news reports I record setting wet year.

In 2017, this property has pretty much been saturated by record amounts of rainfall but it appears drier on the surface than it did in March / April 2016 during extreme drought conditions which contradicts that it was storm water in the photos taken by Rick Libby.

So if it was storm water in Rick's photos provided to SWRCB then the surrounding properties should have also been wet and muddy but they were not.

Explain to me how waiting approximately 2 weeks to inspect the location that the PG&E waste water and facility was staged was in a timely manner ?

Explain to me how allowing the waste water and facility to be totally removed before inspecting the location that it was staged was thorough investigation ?

Explain to me how refusing to review all the records / logs / manifest to determine if more waste water came in than went out is thorough ?

Explain to me how it was thorough when there was no samples and test run to help determine if the tanks were leaking, spilling and discharging ?

Explain to me how it is thorough that SWRCB Bryan Elders lied to his report by making statements that I did not make regarding the ownership of the property ?

Explain to me how it was thorough when SWRCB Bryan Elders failed to consider that Melvin Morris has a long history of lying to regulators, ignoring regulations, illegally discharging ash and waste, and violating regulations including at this very location ?

Explain to me that SWRCB Bryan Elders reported one story in his report regarding the waste water being transported and stored from R-503 Gridley, Butte County to Sutter County and then SWRCB George Low giving the Butte County DAs Office a totally contradictory story that the waste water from R-503 Gridley, Butte County was not transported outside of Butte County to Sutter County ?

Did you review Morris Irrigated Lands Programs documents to determine his irrigation practices because if you didn't then the investigation was not thorough ?

Example of governmental fraud: SWRCB Bryan Elders lied in his report by falsely claiming that I said that the property didn't belong to Morris but belonged to his daughter.

I have the emails which prove exactly what I said and a email from Bryan which he repeats what I said.

PG&E removed the facility approximately April 21 to 24 and SWRCB Bryan Elders inspected the location April 24. Between that time there was a storm event but there was no standing / ponded storm water at the locations it was in previous photos around the tanks and drive way along the southern end of the property. SWRCB Bryan Elders took photos of this location which clearly show that it was dry and storm water doesn't stay standing / ponded after approximately 5 days of dry weather but he failed to include those in his report.

PG&E given money to Gov. Brown and has worked with Gov. Brown, his staff, CA Democrat Run Gov, the Obama Administration, and the UN to write, pass and implement laws and regulations regarding Global Warming / Climate Change and energy which then help PG&E benefit and profit from while getting government contracts and charging customers who are burdened from the laws and regulations which PG&E helped write, pass and implement.

Using false / misleading information / data regarding Global Warming / Climate Change to pass energy laws and regulations and then benefitting and profiting from those laws and relations is fraud.

Fraud which the EPA has been involved in during the Obama Administration.

Your review is bias because you only talked with one side instead of talking with all sides.

Sincerely- Will Rogers

From: "Wampler, David" <Wampler.David@epa.gov>
To: '(b) (6) <(b) (6)
Sent: Tuesday, March 14, 2017 9:15 PM
Subject: EPA response to your Feb. 25, 2017 email

Dear Mr. Rogers,

Thank you for contacting EPA's Administrator, Mr. Scott Pruitt, regarding your concerns from the PG&E activities in Live Oak, California, during the spring of 2016. I have been asked to provide a response to your email to Administrator Pruitt, dated February 25, 2017.

EPA takes your request for additional investigation into the PG&E activities very seriously. We have thoroughly read your email, reviewed the State's water discharge permit issued to PG&E, talked with the State's investigator, and thoroughly read the State's May 20, 2016 investigation report.

Based on the information from you and from those who conducted the investigation, we do not have reason to believe there were unauthorized discharges in the winter/spring of 2016 associated with the PG&E project in your area during the spring of 2016. We believe the State completed a timely and thorough investigation of the concerns you raised and we have no reason to believe their investigation was inadequate.

Lastly, EPA has no information supporting your claims of governmental fraud in the State of California.

Sincerely,

David Wampler

Manager, Water Enforcement Section II

US EPA Region 9

75 Hawthorne Street (ENF 3-2)

San Francisco, CA 94105

(415) 972-3975

wampler.david@epa.gov

Wed Mar 15 08:59:18 EDT 2017
Hope.Brian@epamail.epa.gov
FW: EPA response to your Feb. 25, 2017 email
To: CMS.OEX@epamail.epa.gov

Process as an FYI

From: will rogers [mailto: (b) (6)
Sent: Tuesday, March 14, 2017 11:16 PM
To: Wampler, David <Wampler.David@epa.gov>; Pruitt, Scott <Pruitt.Scott@epa.gov>; Rick Libby < (b) (6) Ron Sullenger <rsullenger@co.sutter.ca.us>; Amanda Hopper <ahopper@co.sutter.ca.us>; Lisa Van De Hey <lvandehey@gridleyherald.com>; Steve Miller < (b) (6) Harold Kruger < (b) (6) Lou Binninger < (b) (6) Ryan Sabalow <rsabalow@sacbee.com>; Dale Kasler <dkasler@sacbee.com>; Sutter Buttes Tea Party <sbtp@syix.com>; Carla Virga <weebler@syix.com>; Chuck and Pat Miller < (b) (6) Matthew@Waterboards Buffleben <matthew.buffleben@waterboards.ca.gov>; Bryan@Waterboards Elder <bryan.elder@waterboards.ca.gov>
Subject: Re: EPA response to your Feb. 25, 2017 email

Dear Mr. Wampler,

Actually this isn't to surprising coming from Region 9 because in 2005 when Morris was illegally discharging large amounts of waste and ash in Sutter County and Yuba County and when Morris was pulling out into fields and illegally discharging waste from Rio Pluma in Gridley, Butte County you guys pretty much ignored it instead of taking action and conducting a thorough investigation.

Actually you could say that Region 9 is partially to blame for Morris illegally discharging ash and waste in Oroville, Butte County in 2008 because Region 9 pretty much ignored my complaints in 2005 and the attached photos of Morris illegally discharging waste in Butte County instead of conducting a thorough investigation.

You could also say that Region 9 is partially to blame for toxic ash being spread on farmland from the power plant in Oroville , Butte County which Morris was providing waste to that had been illegally discharged and stored and taking ash from which he was also illegally discharging and storing which again is because Region 9 basically ignored by complaints in 2005 instead of conducting a thorough investigation.

All the same evidence that I provided to the Regional Water Boards and Regional 9 regarding these activities I also provided to Butte County Environmental Prosecutor Hal Thomas who used to same evidence / material to prosecute Morris, fine him and put him on a 5 Year Injunction which he violated but the Regional Water Board ignored.

Hal Thomas said that this was some of the best evidence that he knew of but I am saying that Regional 9 ignored it instead of conducting a thorough investigation because if Region 9 would have conducted a thorough investigation in 2005 and held Morris accountable then I strongly suspect he wouldn't have gone on to continue to illegally discharging waste and ash in Oroville, Butte County in 2008.

Will Rogers

From: "Wampler, David" <Wampler.David@epa.gov>
To: ' (b) (6) < (b) (6)
Sent: Tuesday, March 14, 2017 9:15 PM
Subject: EPA response to your Feb. 25, 2017 email

Dear Mr. Rogers,

Thank you for contacting EPA's Administrator, Mr. Scott Pruitt, regarding your concerns from the PG&E activities in Live Oak, California, during the spring of 2016. I have been asked to provide a response to your email to Administrator Pruitt, dated February 25,

2017.

EPA takes your request for additional investigation into the PG&E activities very seriously. We have thoroughly read your email, reviewed the State's water discharge permit issued to PG&E, talked with the State's investigator, and thoroughly read the State's May 20, 2016 investigation report.

Based on the information from you and from those who conducted the investigation, we do not have reason to believe there were unauthorized discharges in the winter/spring of 2016 associated with the PG&E project in your area during the spring of 2016. We believe the State completed a timely and thorough investigation of the concerns you raised and we have no reason to believe their investigation was inadequate.

Lastly, EPA has no information supporting your claims of governmental fraud in the State of California.

Sincerely,

David Wampler

Manager, Water Enforcement Section II

US EPA Region 9

75 Hawthorne Street (ENF 3-2)

San Francisco, CA 94105

(415) 972-3975

wampler.david@epa.gov

MORRIS FARMS
22

Subject: RE: Letter

From: Thomas, Hal (HThomas@buttecounty.net)

To: (b) (6)

Date: Tuesday, December 16, 2014 2:16 PM

Will, I am sorry to hear about your exposure to pesticide drift from the Jones aviation activities. Chemicals such as Lorsban and Ethephon 2 are quite toxic when used in ways outside of the label restrictions. I can empathize with your efforts to get the local agricultural commissioner to investigate the matter more fully and carefully. It takes training and an attention to detail to document what is in effect very ephemeral evidence of pesticide drift. As far as a letter thanking you for your assistance in the Morris case while today I can't promise a letter from DA Ramsey I am happy to communicate our thanks for your good credibility and assistance. Your information provided us a picture of the agricultural waste disposal practices in the area which lead to our discovery of power plant ash being used as soil amendment and fertilizing materials. This ash frequently was either toxic for metals such as lead and arsenic, toxic because of dioxin by products, and was being disposed of in the soils of area farms. In Butte County, the practice has largely stopped and we appreciate the information you provided in assisting with these cases.

As far as the Sutter County officialdom I leave that subject to the residents of Sutter County. I can say we in Butte County appreciate the strong community values of our elected DA Mike Ramsey. Let us hope your next District Attorney has a better record on public health and the environment.

Harold M. Thomas

Special Deputy District Attorney

25 County Center Dr.
Oroville, California 95965-3385
Tel. (530)538-7411
Fax. (530)538-7071

Confidentiality Notice: This e-mail and any attachment thereto may contain private, confidential and privileged material for the sole use of the intended recipient. Any review, copying, or distribution of this e-mail (or any attachments thereto) by other than the County of Butte or the intended recipient is strictly prohibited. If you are NOT the intended recipient, please contact the sender immediately and permanently delete the original and any copies of this e-mail and any attachments thereto.

From: will rogers | (b) (6)
Sent: Monday, December 15, 2014 10:58 AM
To: Thomas, Hal
Subject: Letter

Hi Hal,

Sorry to bother you again but I need to little help or favor from you and DA Ramsey. After you guys got Morris to plea to the $33, 000 fine, you mentioned in one of your emails something about DA Ramsey writing and sending me some kind of letter thanking me or recognizing me for the help with the case but I never received anything. But getting a letter wasn't a big deal because I was just glad that I was of some , there was finally some justice and we did some to keep the community and environment safe.Since that time you said that the Morris case helped led you guys to basically shutting down another big polluter it was regarding all that ash from the power plant.

Would DA Ramsey be willing to write me that letter ?

********** ATTACHMENT REMOVED **********

This message contained an attachment which the administrator has caused to be removed.

********** ATTACHMENT REMOVED **********

Attachment name: [Toxic Ash 2.zip]
Attachment type: [application/x-zip-compressed]

Wed Mar 15 08:59:49 EDT 2017
Hope.Brian@epamail.epa.gov
FW: EPA response to your Feb. 25, 2017 email
To: CMS.OEX@epamail.epa.gov

Process as an FYI

From: will rogers [mailto: (b) (6)
Sent: Tuesday, March 14, 2017 11:43 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: Fw: EPA response to your Feb. 25, 2017 email

Dear Secretary Pruitt,

I fully support most of what President Trump and yourself are doing cutting regulations especially regarding water regulations and Global Warming/Climate Change Regulations but if this is the way that the EPA is going to handle my complaints instead of thoroughly investigating them then President Trump and yourself have lost my vote and support.

This incident was not thorough investigated because it did not consider the history of PG&E and Melvin Morris, failed to inspect the waste water and facility while it was still staged on site, failed to calculate the amount of waste water that came in with what was taken out and etc.

Plus SWRCB gave very conflicting stories about the waste water being transported outside of Butte County to Sutter County.

Plus PG&E was disposing of the waste water in a manner and location different from the NOI which was prohibited according to the NOI.

The last time that Region 9 failed to take my complaints seriously and thorough investigate them it allowed Morris to illegally discharging waste and ash at other locations including ash that was coming from a power plant in Oroville that was producing toxic ash that was being spread on farmland in the region.

So basically you could state that Region 9 is partially blame for farmland in our region for being contaminated with illegally disposed of toxic ash.

Will Rogers

----- Forwarded Message -----
From: "Wampler, David" <Wampler.David@epa.gov>
To: ' (b) (6) < (b) (6)
Sent: Tuesday, March 14, 2017 9:15 PM
Subject: EPA response to your Feb. 25, 2017 email

Dear Mr. Rogers,

Thank you for contacting EPA's Administrator, Mr. Scott Pruitt, regarding your concerns from the PG&E activities in Live Oak, California, during the spring of 2016. I have been asked to provide a response to your email to Administrator Pruitt, dated February 25, 2017.

EPA takes your request for additional investigation into the PG&E activities very seriously. We have thoroughly read your email, reviewed the State's water discharge permit issued to PG&E, talked with the State's investigator, and thoroughly read the State's May 20, 2016 investigation report.

Based on the information from you and from those who conducted the investigation, we do not have reason to believe there were unauthorized discharges in the winter/spring of 2016 associated with the PG&E project in your area during the spring of 2016. We believe the State completed a timely and thorough investigation of the concerns you raised and we have no reason to believe their investigation was inadequate.

Lastly, EPA has no information supporting your claims of governmental fraud in the State of California.

Sincerely,

David Wampler

Manager, Water Enforcement Section II

US EPA Region 9

75 Hawthorne Street (ENF 3-2)

San Francisco, CA 94105

(415) 972-3975

wampler.david@epa.gov

PETITION

To: Environmental Protection Agency

Each year, under the EPA's purview, hundreds of thousands of animals are killed to test chemicals. Not only do animals suffer terribly during the testing, but animal tests have well-known scientific flaws — they are slow and expensive, hampering our ability to detect and restrict the most dangerous chemicals. Plus, differences between species mean that the results of animal tests may not be applicable to humans. **I urge you to make 21st Century Toxicity Testing a reality: update your regulations and policies to require non-animal test methods today.**

Sincerely,

Barbara Laderman-Jones
Roseville, CA
(b) (6)
(b) (6)

com

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 31 2017

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Mr. James Callan
James Callan Associates LLC
6523 29th Street North
Arlington, Virginia 22213

Dear Mr. Callan and Stakeholders:

Thank you for your March 8, 2017, letter to EPA Administrator Scott Pruitt regarding chlorpyrifos. For more information on chlorpyrifos, view EPA's news release titled "*EPA Administrator Pruitt Denies Petition to Ban Widely Used Pesticide*" at www.epa.gov/newsreleases/epa-administrator-pruitt-denies-petition-ban-widely-used-pesticide-0 and the "*Order Denying the Petition to Revoke All Tolerances for the Pesticide Chlorpyrifos*" at www.epa.gov/ingredients-used-pesticide-products/order-denying-petition-revoke-all-tolerances-pesticide.

Please feel free to contact us with any more chlorpyrifos related concerns or questions at our chlorpyrifos email box, OPPChlorpyrifosInquiries@epa.gov or call 703-347-0206.

Sincerely,

Anne Overstreet
Communication Services Branch
Field and External Affairs Division
Office of Pesticide Programs

March 8, 2017

RECEIVED
2017 MAR 15 AM 10: 40
OFFICE OF THE
EXECUTIVE SECRETARIAT

The Honorable Scott Pruitt
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Administrator Pruitt:

We write the Environmental Protection Agency (EPA) once again in support of an important insecticide – chlorpyrifos. In comments provided to your predecessors at the EPA during multiple comment periods since 2011, organizations representing thousands of American farmers and users of chlorpyrifos have repeatedly provided input to the EPA on the critical need for this insecticide. We have given EPA a simple, common message through the years – **retain the current crop tolerances and availability of use of the chlorpyrifos-containing products we need**. So far, all of our comments have gone unanswered.

Chlorpyrifos is one of the most widely used active ingredients in insecticides in the world. Since it was first registered in the United States in 1965, chlorpyrifos has played a key role in pest management efforts in the United States and around the world. Today, chlorpyrifos is registered in almost 100 countries worldwide for use on more than 50 different crops against damage caused by a wide range of insect pests. In the United States, chlorpyrifos is a critical tool for growers of over 50 different types of crops, including cereal, oilseeds, forage, fruit, nut, and vegetable crops. Farmers rely on chlorpyrifos because of its efficacy, low cost, tank mix compatibility, ease of implementation into existing integrated pest management (IPM) and integrated resistance management (IRM) programs, and minimal impact on beneficial insects. For many important pests, growers face limited or no viable alternatives to chlorpyrifos. When an outbreak of a new pest occurs, growers look to chlorpyrifos as a proven first-line of defense.

EPA is poised to make a decision by March 31, 2017, on whether to grant a 2007 petition to revoke all tolerances of chlorpyrifos. EPA has repeatedly claimed it needs to act quickly because of the Ninth Circuit Court of Appeals' response deadline. Regrettably, it appears this deadline is being used as a convenient excuse to override sound science and abandon the registration review process in the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The Agency's actions thus far favor expediency over established, scientifically sound analysis mandated by statute in order to implement its policy shift on chlorpyrifos. We maintain that the Court's order that EPA rule on the pending petition to revoke tolerances does not justify a failure to conduct a thorough, science-based review of EPA's unprecedented methodologies being currently used.

Given the unprecedented regulatory action that EPA is proposing to undertake and the immense ramifications of that action, **we call on the EPA to deny the petition, to maintain the existing tolerances, and to complete FIFRA's registration review process for chlorpyrifos.**

Sincerely,

Agricultural Retailers Association
Almond Alliance of California
American Farm Bureau Federation

AmericanHort
American Seed Trade Association
American Soybean Association
American Sugarbeet Growers Association
Beet Sugar Development Foundation
California Citrus Mutual
California Citrus Quality Council
California Cotton Ginners and Growers Association
California Date Commission
California Dried Plum Board
California Fig Advisory Board
California Fresh Fruit Association
California Specialty Crops Council
California Strawberry Commission
California Walnut Commission
Cherry Marketing Institute
Cranberry Institute
CropLife America
Golf Course Superintendents Association of America
Florida Fruit and Vegetable Association
Oregonians for Food & Shelter
National Agricultural Aviation Association
North American Blueberry Council
National Association of State Departments of Agriculture
National Association of Wheat Growers
National Corn Growers Association
National Cotton Council
National Council of Farmer Cooperatives
National Potato Council
National Sorghum Producers
Northwest Horticultural Council
Schertz Aerial Service, Inc.
Sunsweet Growers Inc.
United Fresh Produce Association
U.S. Apple Association
Washington Friends of Farms & Forests
Washington State Potato Commission
Western Agricultural Processors Association
Western Growers
Western Plant Health Association

cc: Ray Starling, Special Assistant to the President for Agriculture, Trade and Food Assistance
The Honorable Michael Young, Acting Secretary, U.S. Department of Agriculture

Jim Callan
Founder/Chief Executive Officer
(b) (6)

James Callan Associates LLC
U.S. Government Relations & Public Policy

Washington, DC
Regional Office:
Arlington, VA

T/C: 703-577-1978
FX: 703-533-9720
www.jamescallanassociates.com

Mr. Scott Pruitt, EPA Administrator
1200 Pennsylvania Avenue N.W.
Washington, D.C. 20460

RECEIVED
2017 MAR 15 AM 10: 39
OFFICE OF THE
EXECUTIVE SECRETARIAT

March 6, 2017

SUBJECT: ENVIRONMENTAL CONCERNS

Dear Mr. Pruitt,

First let me start off by saying congratulations on your new appointment as the new Administrator of the EPA. It's good to know that we will finally have someone who will effectively manage, and address and correct the many environmental problems that face America. It is my hope that you will greatly rein in the EPA, and govern them with strict policies and/or laws on the books on how they are allowed to legally operate. With that being said, I have several concerns about the EPA and what is being done to our environment, on several levels:

I write you today with great concern about our environment, namely our air quality, etc. As you are probably aware, the issue of *chemical trails* (geoengineering) is a concern of many. Up until now...the silent masses have had no voice or recourse to take concerning environmental matters. The EPA has done little to NOTHING about the serious issue of chemical-trail spraying (geoengineering). As you are likely aware, Chemical trails are not to be confused with condensation trails. As we know, condensation trails, are spread by jets; the *"condensation trails" then quickly disappear within 40-60 seconds or so.* However, chemical trails (geoengineering), are also being sprayed from jets. As I'm sure you are aware, *Chemical trails, once sprayed, leave long, thick, white line(s), in the sky which do NOT quickly disappear, but rather "billow" outward, expand, and then spread across the sky and eventually fall to the ground.* Lab tests of soil, water, and snow samples have revealed that chemical trails include several toxins, which include: *Aluminum, Strontium*, and *Barium*, all of which are known *toxins*. These "toxins" are being sprayed onto ALL U.S. states, cities and towns all across America! These toxins affect all forms of life, on every level; *from human, animal, plant, aquatic and the entire eco-system.* I've brought the subject up to my local political representatives, but have been met with some very lame answers that make no sense. If a person wants to do research on the topic of chemical trails on the internet, they would Google it by typing in the word: *chemical trails*. If you check this out, you will quickly see that the topic of chemtrails is immediately addressed as a conspiracy theory.

However, if a person *Googles in the word: Geoengineering, a host of factual articles are then presented to the reader.* There has been extensive research done into the topic of Chemical trails and how this *ILLEGAL chemical-biowarfare spraying activity is being perpetrated against the American public,* and it's being done in many other countries as well. The concept of chemical trails was first introduced by the United Nations (UN) and they are the creators of this genocidal project. *The U.S. had a chance to withdraw from the UN plan, but our govt. officials did NOT wish to withdrawl from the plan!* It is highly

likely, that the politicians were paid-off to look the other way, which then resulted in the chemtrail-spraying plan being set into motion against the U.S. populace. This has gone on for years!

If you do some research you will quickly find that *people are actually profitting off the U.N. Chemtrail plot.* As they say: Follow the money! (See pg. 7 of enclosures). You can see for yourself, if you go to the: *Chicago Mercantile Exchange, and look for the stocks under Weather Derivatives*. The "Weather-Derivative" (weather stocks), are really, codespeak for "chemtrail" (geoengineering) stocks. When the "stocks" are purchased, this then sets into motion - the actions of chemically-spraying entire states, cities, and towns throughout the U.S. Those who buy the "weather derivatives" stocks KNOW exactly what they are doing! They should be held responsible, heavily fined and/or imprisoned for participating in and profitting off this genocidal program.

Also, the Chicago Mercantile Exchange should be FORCED to REMOVE the "weather derivatives" stocks from its stock exchange and database! There MUST BE ACCOUNTABILITY and ACTION taken to STOP this illegal and harmful spraying (biowarfare) against the American people! The best way to achieve this is by: CUTTING THE MONEY AND PROFITS OFF to the "weather derivatives" stocks, via the Chicago Mercantile Exchange! I hope that Trump withdraws from the UN plan! We need to get the UN out of America and America out of the UN! It's time to severe ties permanently! We need to STOP sending the UN money as well.

Spraying the U.S. Populace is ILLEGAL

I've researched and read several articles and the U.S. is being hit hard with these chemtrails. We Americans are basically being POISONED, and used as a "lab experiment", while toxins are sprayed onto us. It's immoral, and it's ILLEGAL to do what is being done to the American people. (See U.S. Public Law 105-85 105th Congress). This LAW sounds good initially, ***BUT, Section B, needs to be TAKEN OFF entirely,*** *as it completely negates (cancels out), Section A of the law (Section A -- is the good part of the law)!* Please...please....have President Trump get this law changed soon! Our entire country's health is at risk! *(See enclosures page 5 about the current Public Law 105-85 105th Congress). This law has to be CHANGED/AMENDED! And those responsible for enacting this law should be IMPRISONED!*

Why are we being Sprayed?

Some believe the "chemtrails" are being used in an effort by the globalist UN, in order to *depopulate* the earth, and that the chemical-trails are part of the UN (United Nations) or globalist plan for depopulation. I know this whole thing sounds pretty crazy, but there are some very intelligent people out there that have really studied the chemical trails (geoengineering) topic, and they are fully informed about it. Test samples of water, soils, rain, and snow have revealed dangerous toxins, that do NOT naturally occur in nature. One man that has done extensive research into the topic of chemical trails (geoengineering) is: Dane Wiginton who has said for years that chemical trails (chemtrails) are in fact real. Chemical trails

(chemtrails and their toxins) cause harmful effects to all forms of life: *from human, animal, plant, to soil, the eco-system, and all aquatic life as well. (our honeybees are also dying off in large numbers).* As you are well aware, *IF our honeybees become extinct, we lose a crucial part of the reproduction of our food chain.* This is a very serious issue: (See attachments).

It is my hope that you address these very critical issues. By STOPPING the chemical trail spraying, it will SAVE lives, save money, and preserve all forms of life. I imagine it is a very costly program, (perhaps billions, or trillions) in order to spray these chemical trails onto all U.S. states, cities and towns across America, and it is an on-going process! The chemical-spraying process when STOPPED will end up *saving numerous lives, and all forms of life will be pre[illegible]ed, (human, animal, plant, aquatic, soil, eco-system),* and it will *also save the U.S. and our taxpayer[illegible] enormous amount of money!* I believe I read *it costs billions of dollars to "spray" these chemical trails (geoengineering).* This is a *CONTINUAL criminal act* being perpetrated upon the American peop[illegible] MUST STOP! We must go about *DEFUNDING the UN* and getting the *shareholder stock(s)* also know[illegible] as *"weather derivatives" or (weather stocks)"OFF the Chicago mercantile exchange!* We must also put an immediate HALT to ALL chemical-trail (geoengineering) spraying from our planes/jets (m[illegible]ry planes), etc. The planes/jets are outfitted with the capacity to "spray" these chemtrails. For furt[illegible] details into how the chemtrails plan has been accomplished, see enclosed (attachments) for details.

I know of several people that are suffering due to these chemical trails being sprayed. On heavy-spray days, it *IS* resulting in respiratory problems, headaches, and other various symptoms. On especially "heavy-spray days," my husband becomes extremely weak, and it often takes him several days to recover AFTER the chemical trails have been s[illegible]rayed heavily over our house and town. So far, for the month of February 2017, *our little town alone has received 14-spray days!* That is ½ of a month! Eleven of those "heavy spray days" were done consecutively. You know this has to be *very costly* to do this *continual spraying and this IS happening all across America!* See literature on the *dire health effects* caused by chemical trail-spraying (biowarfare). (See attachments). Also see, *where some of the money came from or MAY still be coming from in order to FUND the chem-trail spraying.* See Obama's Secret Budget (on **page 6** of the enclosed attachments). **EXPOSED: Secret presidential (obama) chemtrail budget uncovered – Congress exceeds billions "to spray populace like roaches."** Some also speculate that the *health industry may be* part of the cabal and also FUNDING the chemical-spraying. It's very possible that *Obama-care* could be or possibly was, the vehicle in order to fund the chemical-spraying. That would mean ALL Americans participating in Obama-care were and ARE essentially funding America's demise! *I hope that an INVESTIGATION is done into where the MONEY came from and IS coming from in order to do the spraying? Congress knows about it, because they approved of/enacted the law on the books.* ***U.S. Public Law 105-85 - 105th Congress*** **REPEAL Section B of that law!** *Follow the money!* And STOP the funding for the chem-trail spraying! *It w[illegible]AVE BILLIONS and save millions of lives in the process!* (Part of the *money* coming from the *funding* to chemically-spray us– IS coming from the *Chicago Mercantile Exchange via the stocks, called: "Weather Derivatives." According to the enclosed,*

attached literature, there ARE also special-interest groups and specific organizations who ARE connected with this project and profitting off of it. (According to one of the articles enclosed). One such group is: *The Environmental Modification or ENMOD) Program*, who conducts - *various environmental experiments* including: iron-seeding the oceans, planting genetically-modified forests and chem-trailing our skies, etc. Also according to an article (enclosed), one of the major groups profitting off the chemtrail plan (geoengineering) is the *Intergovernmental Panel on Climate Change (IPCC)* whose *chair person is Mr. Rajendra Pachauri. Mr. Pachauri* is also connected to the: *The Tata group*, which is known officially as: *The Tata Energy Research Group also operates as: The Tata Energy Research Institute2* also known as the *(TERI2 group)*. Mr. Pachauri *IS a key player and PROFITEER* connected with the chemtrail spraying (geoengineering) projects, as stated above: *(see enclosed attachments). Last reported profits in connection with Mr. Pachauri and his connected group are approximately* ***77 billion****, including carbon-trading, including involvement with energy and energy-related deals.*

In addition to the above, there is also some speculation that the *health care industry, (possibly Big Pharma) and/or Obamacare* could also be connected with the chemical trail spraying (geoengineering). It does make sense, as they know that when people get sick, they are going to seek medical attention! Perhaps these organizations could very well be involved, and they could also be *chief profiteers*! I'm sure there ARE other individuals/groups connected to this genocidal project as well. I think it's a complex-web of *various individuals, organizations* and *companies* looking to *profit*, and they could care less if Americans get sick or die.

What MUST be done about chem-trail spraying (geoengineering)?

It's time to STOP the stocks called: "Weather Derivatives" from being sold on the Chicago Mercantile Exchange and punish those who have participated in and profited off the ILLEGAL chemical-trail spraying (geoengineering project), via heavy fines and/or imprisonment.

It's time to **STOP the planes**, that are flying to do the chemtrail spraying! It's time to **STOP the FAA from okaying the flight path of these chem-trail planes**. The FAA must KNOW about this as well.

It's time to **STOP the orders being given to the military (Air Force/Navy) pilots who are ordered to do the spraying.** And it's time to ***CHANGE/AMEND*** *the current law on the books*, i.e. **U.S. Public Law 105-85 – 105th Congress** by **REPEALING/AMENDING Section B of the law**! And it's time to **DEFUND the UN**, ***including withdrawing the U.S. agreement (with the UN) regarding chemical-trail spraying on the U.S.*** As the UN are and were the creators of this genocidal project, known as chemical-trail spraying or Geoengineering. There must be plenty of people who know about this and yet NOTHING is being done about it? This same chemtrail spraying (geoengineering) is also happening to many other countries as well. This must come to an end everywhere! America's health and survival is at risk!

Scott Pruitt, EPA Administrator (pg. 5)
ENVIRONMENTAL CONCERNS...
March 6, 2017

Mr. Pruitt, it is my sincere hope that you will take my letter seriously and **put an end** to the ***"lawless"*** and dangerous actions of those behind the spraying of chemical-trails (biowarfare) (geoengineering) project. To gather more information on this issue, please contact a man named, Dane Wiginton who has done extensive research into the chem-trail spraying. *Dane Wiginton* also has an internet page at www.geoengineeringwatch.org he is also on FaceBook with *numerous articles of factual information on the chemical trails (geoengineering)* topic. After reading, you will see that what I am conveying to you is a legitimate problem and a serious health threat to all Americans, our air is being POISONED on purpose, and it's jeopardizing our health and our very lives, as well as all forms of life on the planet (human, animal, plant, soil, aquatic, eco-system, (bees [illegible] off in huge numbers), which in time WILL seriously affect our food chain. Our soils are also being [illegible]inized" via the chemtrail toxins and spraying. *Aluminum* is a key component and toxin of the chemtrails, it harms everything in its path, it also *affects the **brain** in humans, animals, aquatic life,* and it greatly affects *our soil*, and at some point IF NOT stopped, it's going to have a very serious adverse effect on our ability to grow and produce fruits and vegetables. *Aluminizing soils depletes and saps vital nutrients from the soil. The soil then becomes "dead" so to speak, and eventually "the soil" won't be able to produce anything* when seeds are planted. This is a serious issue! It's just one more reason that the Chemtrails (geoengineering) MUST be STOPPED!!! In addition it must be noted that the use of *Barium or Barium salts*, (another toxic ingredient in the chemtrail concoctions) also *results in a "drying effect" on soils and bodies of water.* See complete list of all the toxins listed in the chemtrail concoctions. There are at least *30-35 different toxins* being used in these chemtrail sprays! (See enclosed attachment). *We are ALL being slowly poisoned!* Some also believe that the *chem-trail (geoengineering)* is also a method of: *weather control* and connected to HAARP. Possibly also part of the UN plan! Agenda 21 Plan.

With all that I have said, I hope that you will take this issue seriously, and I hope something will be done about this disturbing, and serious issue!

I fully support you, President Trump, VP-Mike Pence and the entire Trump cabinet/administration and the good work that I believe you will all do on behalf of the American people. Thank you for taking the time to read my letter. I hope my letter will *spur you to action!* Addressing these concerns will *SAVE and preserve life on many levels: human, animal, plant, aquatic, and the eco-system. It will also benefit our health and that of our children and grandchildren and future generations to come.* I consider these environmental issues to be of paramount importance and we really need for them to be addressed and STOPPED! I am totally serious about this issue and I hope that you will talk to President Trump about it, and VP, Mike Pence about it as well. Whatever, you have to do, to get this chemical-spraying (biowarfare ASSAULT) (geoengineering) plan STOPPED, please do it, *as it will also save millions of lives and billions (perhaps trillions) of dollars!* In order to Make America Great Again, we MUST take the steps to preserve life on all levels and to protect Americans' health. We MUST Make America Healthy Again! God bless you, President Trump, and VP Pence, and the entire Trump cabinet, as you all go about

righting the "many wrongs" that have been done to America. Please share this with President Trump and VP Pence.

Please let me know that you've received my letter and the attachments and I'd like to know your thoughts and position on these topics.

cc: Enclosures As Stated

Sincerely,

Jean Burdo

C-130 aircraft caught dropping massive 'raindrop shaped fibers' onto populace, lab tests confirm "metals"

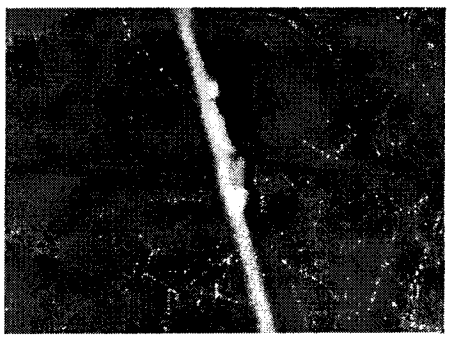
BY ◊ - *12.05.2014 @6:03 PM EST*

Independent lab tests point to mainstream cover-up of live biowarfare, geoengineering testing

By Shepard Ambellas

CHINO VALLEY, Ariz. (INTELLIHUB.COM) — Marie Snow and her friend Cori Gunnels knew they stumbled across something sinister, one November day, this year, when they saw what appeared to be 50 to 60-foot long "raindrops", "solid" in nature, falling from the sky in clusters, after three military aircraft, including a C-130, flew overhead, minutes prior, at an altitude of an estimated 5,000-8,000 ft.

Using critical thinking skills, Snow and Gunnels, patriots and local residents, decided to collect samples of the fibrous material which was deployed from the three military planes earlier that day, saving the samples for testing. In fact, the fibers looked so ominous that Snow even opted not to touch them with her "bare hands" and collected them on "white pieces of paper".



Visible fibers, 50 to 60 feet long, left after three military aircraft were flying at approx. 5,000-8,000 ft. altitude. (Photo Credit: Marie Snow)

Soon after, Snow, determined to know the truth, contacted her local news station, KPHO, CBS 5, inviting them to investigate her fibrous discovery.

Within days, CBS 5 took Snow up on her offer, sending reporter Greg Argos to investigate the fibrous samples she collected off of the natural terrain and nearby fence posts, also noting her eyewitness account to the 3 military aircraft which flew overhead that day. However, what happened after CBS 5 interviewed Snow may shock you.

Astonishingly, both tests concluded that both samples indeed tested positive for three metal analytes, "Aluminum", "barium" and "strontium", three substances commonly known by dedicated researchers to be found in persistent contrails, i.e. chemtrails and or geoengineering, terraforming operations as pointed out by investigative researcher, activist, Rosalind Peterson, Agriculture Defense Coalition, in Shade the Motion Picture.

Attention: MARIE SNOW
Project: GENERAL TESTING
Description: FIBERS
Matrix: Solid
Lab ID: 14K0729-01
P.O. #
Sampled: 11/05/14 16:10
Received: 11/18/14 12:13

Metals - TTLC

Analyte	Units	Results	Qualifier	MDL	RL	Method	Analyzed	Prepared	Batch
Aluminum	[illegible]	421	R-02	[illegible]	778	EPA 6010B	11/21/14	11/20/14	B4K1048

Metals - Solid

Analyte	Units	Results	Qualifier	MDL	RL	Method	Analyzed	Prepared	Batch
Strontium	mg/kg	70.8	R-02	3.1	15.6	EPA 6010B	11/21/14		B4K1048

Notes and Definitions

R-02	Elevated Reporting Limits due to limited sample volume.
QM-4X	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to the analyte concentration being greater than 4 times the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
J	Detected but below the Reporting Limit, therefore, result is an estimated concentration (CLP J-Flag). The J flag is equivalent to the DNQ Estimated Concentration flag.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the detection limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
	Less than reporting limit
	Less than or equal to reporting limit
	Greater than reporting limit
	Greater than or equal to reporting limit
MDL	Method Detection Limit
RL/ML	Minimum Level of Quantitation
MCL/AL	Maxium Contaminant Level/Action Level
mg/kg	Results reported as wet weight
TTLC	Total Threshold Limit Concentration
STLC	Soluble Threshold Limit Concentration
TCLP	Toxicity Characteristic Leachate Procedure
Note 1	Received Temperature - according to EPA guidelines, samples for most chemistry methods should be held at ≤6 degrees C after collection, including during transportation, unless the time from sampling to delivery is <2 hours. Regulating agencies may invalidate results if temperature requirements are not met.
Note 2	According to 40 CFR Part 136 Table II, the following tests should be analyzed in the field within 15 minutes of sampling: pH, chlorine, dissolved oxygen, and sulfite.

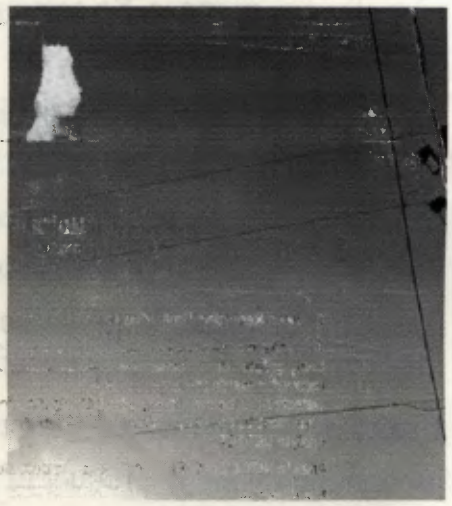
Lab test "14K0729" dated Dec. 04, 2014. (Image Credit: Marie Snow)

Coupling the Redding lab's scientific findings, with Marie Snow's eyewitness account of the three military planes flying overhead, the fibrous material collected, and other breakthrough research noted in Shade the Motion Picture, we must now hold the mainstream news accountable for not reporting actual scientific evidence and findings pertaining to persistent contrails, chemtrails, geoengineering or the terraforming of our planetary atmosphere.

In fact scientists, likely not credible ones, Bill Gates and others are now claiming that geoengineering is needed to block solar radiation, to prevent "global warming".

Although some like Dr. Matthew Watson, University of Bristol, say that Solar Radiation Management (SRM) could have "profoundly terrifying" consequences possibly causing extreme drought or severe rainfall, conflicting weather, in opposite regions of the globe not typical to the locality.

"Some of the techniques could also damage the ozone layer, leaving people at risk of skin cancer, or potentially trigger conflicts amid tensions between those affected by their deployment, the scientists said.", as reported by The Telegraph in the article *Six radical ways to tackle global warming.*



Mysterious fibers containing barium, strontium and aluminum found on power lines after military test, Chino Valley, AZ. (Photo Credit: Marie Snow)

But maybe even more bothersome is the fact that theses biological, chemical, and in some cases radiological, tests have all been approved to be conducted on the general public, at any time, by the U.S. government or military, under a public law.

Public Law 105–85 105th Congress

PUBLIC LAW 105-85- NOV. 18, 1997: USE OF HUMAN SUBJECTS FOR TESTING OF CHEMICAL OR BIOLOGICAL AGENTSSEC. 1078. RESTRICTIONS ON THE USE OF HUMAN SUBJECTS FOR TESTING OF CHEMICAL OR BIOLOGICAL AGENTS.(a) PROHIBITED ACTIVITIES. – The Secretary of Defense may not conduct (directly or by contract)(1) any test or experiment involving the use of a chemical agent or biological agent on a civilian population; or

(2) any other testing of a chemical agent or biological agent on human subjects.(b) EXCEPTIONS.- Subject to subsections (c), (d), and (e), the prohibition in subsection (a) does not apply to a test or experiment carried out for any of the following purposes:(1) Any peaceful purpose that is related to a medical, therapeutic, pharmaceutical, agricultural, industrial, or research activity.

(2) Any purpose that is directly related to protection against toxic chemicals or biological weapons and agents.

(3) Any law enforcement purpose, including any purpose related to riot control.

So section (a) prohibits these cruel and inhumane chemical and biological tests on humans.

BUT

Section (b) says that the prohibitions in section (a) do not apply to tests carried out for virtually any purpose. So section (b) completely negates the prohibitions of section (a).

The LAW working AGAINST US

Don't be fooled — testing is currently being conducted and is harming your health as pointed out by Luca Zanna and Al DiCicco in Shade the Motion Picture when lab work, i.e. official blood tests were revealed for the first time publicly, demonstrating that the very metals, "analyites" found in these chemtrail "raindrop" like fibers are also in the human bloodstream at alarmingly toxic levels.

Ladies and gentlemen we are being exterminated ever so slowly. Our eventual deaths brought on by the bi-product of geoengineering applications, now being sold to the American people as necessary. And yes, the U.S. government is aware of it and has prepared quite the secret budget, unseen to most, kept under the radar of the American people.

Obama's secret budget

The secretive budget, that President Obama and other members of his administration don't want you to know about, was first uncovered by myself [Shepard Ambellas] and Avalon, Intellihub.com, in March of 2011, published in an article titled "Exposed: Secret presidential chemtrail budget uncovered — Congress exceeds billions to spray populace like roaches" which garnered worldwide attention.

Focusing on exposing geoengineering, chemtrail, applications, the article called out the U.S. Global Change Research Program (USGCRP), which is composed of 13 federal member agencies with FY budgets into the billions of dollars.

more people that are RESPONSIBLE...

The USGCRP, working hand-and-hand with the University Corporation for Atmospheric Research (UCAR), the U.S. government, and other governments of the world are conducting sinister and experimental research on mother earth and all of its living inhabitants including humans, plants, animals and sea life.

Moreover, massive money-making schemes may also be partly to blame for modern weather manipulation, geoengineering, and terraforming operations as weather derivatives can now be traded on the Chicago Mercantile Exchange.

In fact the CME Group's official website confirms the market for such operations, reading, "From heat waves to arctic cold outbreaks, weather often has a significant impact on business – accounting for $5.3 billion of the $16 trillion US GDP. CME Group's temperature-based index futures and options provide the tools to help you manage weather-related risk." All big business and opportunity for the wealthy, despite being downplayed by publications such as Fortune.

Snow's personal encounter is described by her in the following memo sent to Intellihub News:

My friend Cori Gunnels, who lives eight miles south-west of me, called and told me to go outside to see a C-130 or KC-130, with two escorts flying over her home. I went outside and looked to the south-west and saw a 130 with two escorts to the rear of it heading west. The second (northern most) escort split off from the other two and was headed in my direction, (north-east).

When it began to fly directly over my house, (Cori was on the phone with me), I began seeing what looked like long rain drops, or extremely long cob-web type fibers (twenty to fifty feet long), falling from the direction of the aircraft. I did not see it falling directly from the aircraft, but it was an immediate action. The sun was in the perfect position for me to see this substance falling toward the ground, and on my head.

The substance also fell from the sky on my friend Cori at the time the aircraft were present and passing over her. Neither of us saw the substance fall directly from the aircraft, however, it was at the exact time the different aircraft passed over both of us. Cori lives at an altitude of approx. 5,400 ft., and Cori told me that the aircraft were almost at the same altitude as Granite Mountain, which is 7,629 ft. Cori's friend was working in Chino Valley at that exact time and he also reports seeing the substance fall from the sky. I am not sure if he saw the aircraft.

I grabbed a white piece of paper and began collecting the unknown substance from mid-air. The fibers were so long that I had to wind the paper over and over for many minutes in order to collect it. I also collected the fibers from the cars, fences and plants. The telephone lines were covered in it. Not only was this substance found in my yard, but also all over of Chino Valley, the Yavapai College Campus in Chino Valley, Prescott, Williamson Valley, and there were reports in Phoenix as well.

I am very afraid that this substance may be harmful, as the fibers are very fine and I, along with anyone else that was outside at the time, breathed them in. Because it landed in my organic garden, I disposed of anything growing there.

I have many pictures of this substance, a picture of the three aircraft, and physical evidence we collected from the air, cars, fences and plants. The picture of the C130 seems to show the rear loading bay open on the back of the aircraft.

This matter is urgent and needs attention. I called Ernest Love Field in Prescott to inquire whether they had any knowledge of a C-130 with two escorts were in the area... they know nothing. I have contacted the EPA, who referred me to Arizona Dept. of Environmental Quality... who referred me back to the EPA. I also filed three complaints with the FAA, have emailed all ninety-four AZ State represe[illegible], and only heard back from Judy Burgess, who requested that I notify her of the res[illegible] of the lab tests. If none of these agencies are responsible for an unknown substanc[illegible] from an aircraft, why do they exist?

I contacted Luke AFB, and was told [illegible] tact Davis Monthan AFB. I spoke with an air force Lieutenant there, and they are in[illegible]stigating this event. I did a television interview with CBS on 11-12-14, they did not do an h[illegible]nest interview. When I left the interview they gathered their own samples and had them tested (Positive gauze, wheat gluten flour and bacitracin). I asked them to hold off on the story until we got our results back. We have sent two samples of the substance to different labs and as of 12-4-14, my results show highly positive for aluminum = 421mg (MDL = 156), Strontium = 70.8mg (MDL = 3.1), Cori's results Aluminum 1020mg (MDL = 164) Barium = 34.1 (MDL = 11.9).

LAB TEST RESULTS of Chino Valley, AZ incident in 2014.

Update, Nov. 19, 2014: *Congressman Gosar h[illegible] the EPA and I feel we are going to be heard finally.*

Results: NOTHING was done about this. The spraying continues on and on...

Update Nov. 21, 2014: *I have heard from the EPA... they are taking the case.* * EPA has done NOTHING to stop the chem-trail spraying across the U.S. and it continues on and on...

Update Dec. 02, 2014: *We are searching for any labs: soil, air, rainwater, blood, fibers. Please help. Alerting alternative media to keep the truth alive.*

Thank you,

Marie Snow

It's also important to point out that Corri Gunnels, an admin on "Uniting for Our Planet, Redding CA's" Facebook page, told Intellihub News in an interview Friday, that she "knew they [KPHO, CBS 5] were going to marginalize the story", despite the fact that the station's news editor, Scott Davis, told Gunnels that he had never been directed by corporate to skew a report.

Gunnels also wanted me to point out in this article that "three other eyewitnesses in Phoenix called CBS 5", reporting the strange fibers days before Gunnel and Snow collected samples.

Gunnels believes that this information was withheld from the local news report, as "biodegradable bandages" wouldn't be of any use in the city of Phoenix as limited livestock exists there, further demonstrating a potential cover-up of the actual story.

Other Sources:

'Mysterious' fibers in Chino Valley are biodegradable gauze — KPHO, CBS 5

Six radical ways to tackle global warming — The Telegraph

Recent U.S. snowstorms found to contain elements of entomological warfare being conducted on American populace — Intellihub.com *

* PUBLIC LAW 105–85—NOV. 18, 1997 — DOD.mil

This law on the books works for and AGAINST U.S. citizens. It IS essentially allowing the poisonous chemtrails to happen and continue!

About the author:

Mr. Ambellas is very knowledgeable on the topic of chem-trails (geoengineering).

Shepard Ambellas is the founder, editor-in-chief of Intellihub News and the maker of SHADE the Motion Picture. You can also find him on Twitter and Facebook. Shepard also appears on the Travel Channel series America Declassified. You can also listen to him on Coast To Coast AM.

For media inquires, interviews, questions or suggestions for this author, email: shepard@intellihub.com.

Read more articles by this author here.

9.9K SHARES

Food Freedom

Decentralize, Grow Your Own, Buy Local.

2010 Article

UN Climate Concern Morphs into Chemtrail Glee Club

Posted on December 6, 2010 by Rady | 24 Comments

Sept. 29, 2011 Update: Chemtrail article in Project Censored's Top 10 most censored stories

See those who are PROFITTING off this.

By Rady Ananda

In Cancun, Mexico, the United Nations Framework Convention on Climate Change is under pressure to overturn the UN ban on chemtrails. This would dissolve an agreement reached in October at the UN Convention on Biological Diversity conference in Japan. In that landmark decision, the 193-member CBD agreed by consensus to a moratorium on geoengineering projects and experiments.

The US has not agreed to it. Citing profits, the US further refuses to cut greenhouse gas emissions attributed to global warming, the purported concern of the United Nations. Instead, it seeks to expand its geoengineering projects for which hundreds of patents have already been filed. (See sampling below.)

The Intergovernmental Panel on Climate Change (IPCC) opened the Cancun conference last week by discussing geoengineering options that will be further explored in Peru later this year. Such

other organization RESPONSIBLE... for chemtrail spraying

Environment · Government

When Conspiracy Theories Turn Out to Be TRUE

9 months ago

Written by Tony Elliott

1.2K SHARES Share Tweet Pin Email

Most people equate the topic of chem trails with conspiracy theories and believe what we are seeing are simple contrails, however, nothing could be

(over)

further from the truth, as there happens to be more chem trails in the sky than contrails.

Chem trails are part of the United Nations climate project designed to fight the effects of climate change and have been used for years.

Most of the chemicals used in producing chem trails are barium, lead, arsenic, chromium, aluminum, cadmium, silver, and selenium.

The idea behind the project is to create a thin layer of these chemicals at an altitude of around 40,000 feet, in the earth's atmosphere to create a barrier to reflect part of the sun's radiation back into space before it reaches the surface.

The only problem with this reasoning is by producing a thin layer of visible particles in the upper atmosphere of the planet would actually create warming of our planet by creating a greenhouse effect. This is the whole idea the UN has had from the beginning. Since no physical evidence of global warming exists, the UN climate organizations formed their own plan to create it, and mask their efforts with the claim the project is to fight it.

We can tell the difference between chem trails and con trails by the way they act in the sky.

Content was blocked because it was not signed by a valid security certificate.

For more information, see "About Certificate Errors" in Internet Explorer Help.

Chemtrails AFFECT All forms of life!

TRENDING ON EAGLE RISING

CNN's Jake Tapper on Russian Hacking: 'Isn't This All a Huge Failure of the Obama Administration?' [VIDEO]

Obama: When Minorities 'Wage Peaceful Protest, They're not Demanding Special Treatment' [VIDEO]

Bernie Sanders Responds to Man Who Wants to Know Why the Obama Administration is so Against Small Business Owners [VIDEO]

Trump Refuses to Take Question From CNN's Jim Acosta: 'You are Fake News!' [VIDEO]

A con trail will quickly disappear minutes after the plane passes, whereas a chem trail will last for hours, spreading out forming a thin layer of pseudo cirrus cloud cover. The one instance where a con trail will last longer than a minute or two is when a contrail is produced and the area happens to have the jet stream directly overhead. Even in this case, the contrail will quickly move off in the direction of the flow of the jet stream.

Aside from climate, there are other aspects associated with chem trails, like their toxicity.

Chem trails spread radioactive and biological materials along with the toxic metals mentioned before. These elements pollute water, air, crops, and fully integrate into all farm animals. Thus, it is rather like we humans being crop dusted, only this time we are the pests.

Latest January 12, 2017 in News: Obama Averaged 3 Bombs An Hour 24/7 in 2016

Terms of Use Privacy Contact Us Advertise

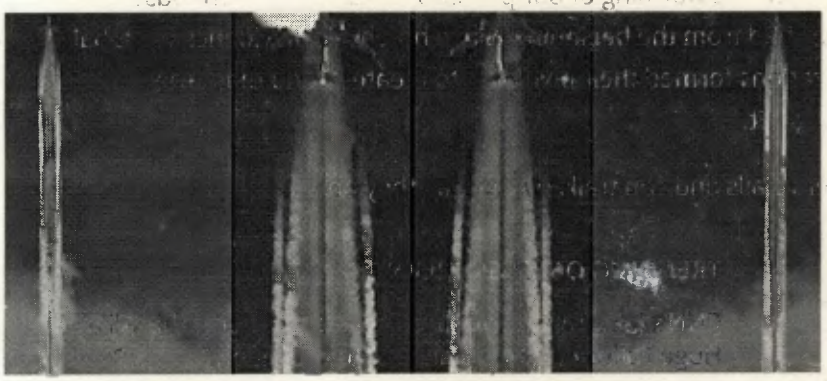
YourNewsWire.com
News. Truth. Unfiltered.

HOME | NEWS | HEALTH | SCI/ENVIRONMENT | TECHNOLOGY | ENTERTAINMENT | CONSPIRACIES | CONTACT US

Home » Sci/Environment » The United Nations Admits Chemtrails Are Real

The United Nations Admits Chemtrails Are Real

Posted on March 4, 2016 by Sean Adl-Tabatabai in Sci/Environment // 247 Comments



Share 208K Tweet 1 point

The following video is an admission by Rosalind Peterson, President of the Agriculture Defence Coalition, who addresses the UN on the truth behind chemtrails, geoengineering, and weather modification.

The acknowledgement by the UN that our skies are being polluted with aluminium, barium, lead, arsenic, chromium, cadmium, selenium, and silver should give weight to the claims that Chemtrails cause a whole host of health problems in the general population, including:

Content was blocked because it was not signed by a valid security certificate.

For more information, see "About Certificate Errors" in Internet Explorer Help.

Neurological effects, heart damage, eyesight issues, reproduction failures, immune system damage, gastrointestinal disorders, damaged kidney, damaged liver, hormonal problems, and more.

Humansarefree.com reports:

You May Like Ads by Revcontent

Hillary's Massive Post-election Meltdown Caught on Video

7 Times Lotto Winner Reveals What You're Missing when Buying Lotto Ticket

The truth is the government is spraying deadly chemtrails in hopes of population reduction. Furthermore they have been known to use chemtrails as biological testing agents on the populace; all while claiming they are nothing more than mere vapor.

We'll now we have 100% undeniable evidence that chemtrails exist.

The video below is of Rosalind Peterson, the president of Agriculture Defence Coalition.

In it she address the United Nations on chemtrails, geoengineering, and weather modification (HAARP). If you were a skeptic before, I can assure you, that you will not be after hearing what she (the video below) has to say to the people in power.

Content was blocked because it was not signed by a valid security certificate.

For more information, see "About Certificate Errors" in Internet Explorer Help.

This article was originally published in 2015 and is frequently updated

About Latest Posts

Sean Adl-Tabatabai
Editor-in-chief at Your News Wire

Follow me

Content was blocked because it was not signed by a

chemtrails chemtrails are real proof chemtrails United Nations

Trending Today

Ads by Revcontent

Never Mind Adderall. This 100% Legal New Drug is Taking Residents by Storm

Doctors Calling This Fruit The Answer for Diabetics

(1) Odd Diabetes Trick "Kills" Diabetes Industry (do This Tonight)!

24 Photos of Donald Trump That Will Change Your Mind

24 Shocking Pics Of Celebs Who Got Ugly As They Aged - #4 Will Disturb You!

Final Chilling Photo: What Happens Next Is Horrifying And Heartbreaking

10 Times Melania Trump Showed Too Much

Why are They Spraying Us?

EVERYWHERE!

Stop Spraying California!

Spraying Biological & Chemicals Agents on U. S. Citizens is Illegal!

"If we no longer have control of the air we breathe, then we are no longer a FREE people!"

Visit our Chemtrail Survival Items Page

Thursday, January 12th, 2017

Strontium & Chemtrails

Stop Spraying California!
Strontium - Chemtrails

Home
Our Mission
Contact Us

Chemtrail Information Center

What are they Spraying?
What you can do to Stop Chemtrails
How to Protect your Family
Chemtrail Survival Items

Chemtrail Alerts!
Chemtrail Articles
Chemtrails & Binary Chemical Weapons
Chemtrail Documents
Chemtrail Legislation
Chemtrail Petitons
Chemtrail Planes
Chemtrail Posters
Children & Chemtrails
Contaminated Soil & Chemtrails
Drinking Water & Chemtrails
Elderly & Chemtrails
ELF Waves & Chemtrails
Geoengineering & Chemtrails
Global Warming & Chemtrails
GWEN Waves & Chemtrails
HAARP Waves & Chemtrails
Honey Bees & Chemtrails
Morgellons Disease & Chemtrails
Oceans & Chemtrails
Operation Cloverleaf
Tinnitus & Chemtrails
Weather Modification & Chemtrails
Rose Bowl Chemtrail
Black Chemtrails
SCALAR Waves and Chemtrails

Toxic Chemicals & Metals in Chemtrails

Aluminum Oxide Particles

STOP SPRAYING CALIFORNIA!

California Chemtrail Information

California Chemtrail Information

Dear California Resident/Neighbor/Friend,

California residents are moving about shopping, taking their children to school, running errands, going to work, attending churches, taking evening walks, never knowing they are being sprayed with a toxic bath of submicron metals and chemicals. Most citizens don't even know it is happening to them. Chemtrail spraying continues in California and heavy spraying was reported all over the United States and we are getting email reports of chemtrails around the world. If you were felling a little sick, had a dry cough, unexplained itching, ringing in the ears, and brain fog it may have been attributed to Chemtrails.

Residents in Ventura County are not warned that they were going to be sprayed like insects and we are now breathing an atmosphere that has been geoengineered to contain ethylene dibromide, aluminum oxide, barium salts, strontium, cadmium, mercury, decussated red blood cells, live biological toxins, radio active thorium, yellow fungal mycotoxins, mold spores, mycoplasma and assortment of other toxic soups.

We need to stop the chemtrail spraying of Ventura County and the entire state of California ASAP!

Chemtrail Alert ! Ventura County – Numbers to Call!

Congressman Elton Gallegly: 805 497-2224 **<<<Please call!"<<<**

U. S. EPA Region #9 Southern California: 213.244.1800 **<<<Please call!"<<<**

FAA Aviation Policy Planning & Environment: 202.267.7954

FAA Local: 310.215.2150 **<<<Please call!"<<<**

FAA State Level: 951.276.6701 **<<<Please call!"<<<**

Local FAA Board: 818.904.6166 **<<<Please call!"<<<**

Local California Air Board: 805.645.1440 **<<<Please call!"<<<**

California Air Board: 916.323.8417 - Carl Brown

Ventura County Environmental Health Division: (county level) 805.654.2813

Air Quality Pollution Control: (Jay Nichols) 805.645.1443

Ventura County Air Quality Pollution Control 24 Hotline: 805.654.2797 <<<Please call!"<<<

(They monitor call throughout the day. Call every time you see us being sprayed.)

Military Phone Numbers to Call

Point Mugu: 805.989.1110

Port Hueneme: 805.982.4711 (command office) 805.989.7903

Ventura: 805.982.2418

Media to Call

L A Times (Ventura County Desk): 805.367.6661

Chemtrail Related Videos

15:01

1 of 7 What in the world are they spraying? (Chemtrails)

1 of 7 **What in the world are they spraying** ? Video released October 22, 2010.

8:35 +

Danger In The Sky - The Chemtrail Phenomenon

Researchers discovered 6 different agendas or motives for these operations, some of which may overlap: environment or climate changes, biological, military purposes, electromagnetic, geophysical or global effects, and exotic propulsion systems.

14:01 G. Edward Griffin Michael Murphy Interview Chemtrails - Coast to Coast radio interview Oct 12, 2010

1:38

Chemtrails 2010 " your hometown is the next "

Is your hometown next for chemtrails spraying?
Google : "**chemtrails**" for more information
-A pilot shots a chemical plane from his

0:55

Chemtrails Over Northern CA with Rainbow Effect, Memorial Day 2010

Chemtrails , **Northern CA** , Memorial Day 2010, chemical trails

2:04

Massive Chemtrails Over Southern California (11-5-09)

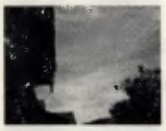
Ever felt you were being sprayed like an insect? This was taken by my daughter while she was out today.

0:11

Chemtrail - Humboldt County, CA

Sept 09, 2010

Military jet just did a fly over Arcata California and left a cloud of smoke for over thirty miles that covered a lot of **Humboldt county.**


2:01 Chemtrails Vallejo California June 23 2010

1:24

Chemtrails over North East Philadelphia 01-11-2010 4pm C03.avi

Chemtrails destroyed the skies today in **Philadelphia**

0:30

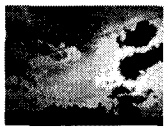
Chemtrail over Idaho June 27, 2010

chemtrail plane fies **over** meridian **idaho** . as it does it casts a shadow below it. wierdest one ive seen here anyways. the light trail on top is ...

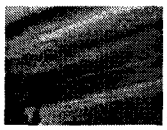
6:48

Chemtrails in Seattle Sept 02, 2010

Please forgive the audio/video quality, I was in such a hurry to catch the planes in the act of spraying that I forgot to check the video settings ...

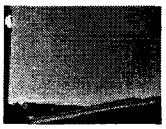

7:00

Heavy Chemtrails / Poison sky in Australia 29/10/10 It's obvious these are no clouds, except for the fluffy ones. Change, like Obama propagated, is indeed happening. Change in our atmosphere,


9:13 +

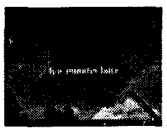
ChemTrails Central Oregon June 30 2010 Poisonous Contrails. Are you Sick!?

All this was inspired by the principle — which is quite true in itself — that in the big lie there is always a certain force of credibility ...

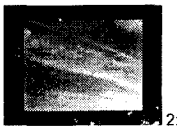

2:51

Translate

Chemtrails Romania Constanta Sinaia. **Chemtrails are all over the world.Just watch the sky.Used to kill the bees,high in barium and aluminium and other toxic stuff maybe hiding the ...**


2:16

Massive Chemtrail Naples Italy Sept 02, 2010.mpg


2:37

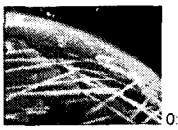
Heavy spraying over Paris-France Chemtrails August 2010

Pictures of massive **heavy** aluminium mixture sunset **over Paris august** 03 **2010**

1:09

Translate

Chemtrail Spain 2010


0:55 +

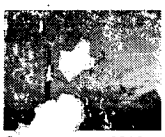
Chemtrails in Germany

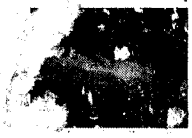
ZDF **Chemtrails** Reportage

4:37 +

ANOTHER VIDEO WITH **CHEMTRAILS** IN THESSALONIKI GREECE

chemtrailscontrailsnotcirrus.blogspot.com: Χημικές [illegible] πάνω από τον θερμαικό κόλπο στην Θεσσαλονίκη Ελλάδα Chemical lolis over the Gulf in ...


0:22 Chemtrail C[illegible] mayo 2010


9:25

Chemtrails - List Of Countries / "Why?" Produced in April 2009. This video contains a list of countries which are being sprayed with **chemtrail** activity.

5:40

65[illegible] - Denmark as weather modification and experimental zone - chemtrails, HAARP, Scalar ...
Denmark citizen filming and commenting on chemtrail being sprayed. It is always interesting observing heavy **chemtrails** spraying - totally wild - and the next four days have a CLEAR GREY SKY without really seeing ...

8:23
CHEMTRAILS CLIFFORD CARNICOM 2010 VERY IMPORTANT SHARE

Know Your Enemy!

Chemtrails kill! The planet! You!

A partial list of chemtrail symptoms in humans and animals:

Headache • Brain fog • Fatigue • Low energy • Compromised immunity • Disorientation • Difficulty paying attention and concentrating • Sinusitis • Skin discomfort/irritation • Joint pain • Muscle pain • Asthmatic (Breathing difficulties) • Dizziness • Insomnia • Memory loss • Eye problems (blurred or fuzzy vision) • Nausea • Liver problems • Gallbalder dysfunction • Tinnitus (distant ringing in ears or high pitched sound after spraying) • Neck pain • Scratchy throat • Allergy symptoms • Hay fever out of season • Flu-like symptoms • Susceptibility to colds • General weakness • Anxiety • Lightheaded or faint • Depression • Coughing • Sneezing • Shortness of breath • Vertigo • Anger/Rage/Frustration issues • MORGELLONS disease

Here's why you feel so bad when the sky is so grey!
Verified analysis of what you are breathing:

Aluminum Oxide Particles - Arsenic - Bacilli and Molds - Barium Salts - Barium Titanates - Cadmium - Calcium - Chromium - Desiccated Human Red Blood Cells Ethylene Dibromide - Lead - Mercury - Methyl Aluminum - Mold Spores - Mycoplasma Nano-Aluminum-Coated Fiberglass - Nitrogen Trifluoride - Known as CHAFF) - Nickel Polymer Fibers Pseudomonas Aeruginosa - Pseudomonas Florescens - Radioactive Cesium Radio Active Thorium - Selenium - Serratia Marcscens - Sharp Titanium Shards - Silver Streptomyces - Stronthium - Sub-Micron Particles(Containing Live Biological Matter) Unidentified Bacteria - Uranium - Yellow Fungal Mycotoxins

How to Breathe Free in a chemtrail world! **http://www.halfpasthuman.com/chemies.html**

Here is a partial list of reported chemtrail exposure symptoms:

Headache · Brain fog · Fatigue · Low energy · Compromised immunity · Disorientation · Difficulty paying attention and concentrating · Sinusitis · Skin discomfort/irritation · Joint pain · Muscle pain · Asthmatic (Breathing difficulties) · Dizziness · Insomnia · Memory loss · Eye problems (blurred or fuzzy vision) · Nausea · Liver problems · Gallballder dysfunction · Tinnitus (distant ringing in ears or high pitched sound after spraying) · Neck pain · Scratchy throat · Allergy symptoms · Hay fever out of season · Flu-like symptoms · Susceptibility to colds · General weakness · Anxiety · Lightheaded or faint · Depression · Coughing · Sneezing · Shortness of breath · Vertigo · Anger/Rage/Frustration issues

No wonder at all that you would have such symptoms, look at what has been verified to be in the chemtrails mixture:

Aluminum Oxide Particles
Arsenic
Bacilli and Molds
Barium Salts
Barium Titanates
Cadmium
Calcium
Chromium
Desiccated Human Red Blood Cells
Ethylene Dibromide
Enterobacter Cloacal
Enterobacteriaceae
Human white Blood Cells-A (restrictor enzyme used in research labs to snip and combine DNA)
Lead
Mercury
Methyl Aluminum
Mold Spores
Mycoplasma
Nano-Aluminum-Coated Fiberglass
Nitrogen Trifluoride
Known as CHAFF)
Nickel
Polymer Fibers
Pseudomonas Aeruginosa
Pseudomonas Florescens
Radioactive Cesium
Radio Active Thorium
Selenium
Serratia Marcscens
Sharp Titanium Shards

Silver
Streptomyces
Stronthium
Sub-Micron Particles(Containing Live Biological Matter)
Unidentified Bacteria
Uranium
Yellow Fungal Mycotoxins

Chances are that you are reading this as you have felt some level of effects from the chemtrail exposure and it has brought a realization to your consciousness that now is the time to do something about it.

Some of the impacts of the chemtrails include breathing problems obviously. Breathing in metals all day cannot be good for the lungs. So we will look at some products that are known to aid the lungs. Chemtrails also affect the brain. The good news is that many of the approaches for the lungs will also aid the brain.

A World Without Bees?

Considering all the important gifts we've come to enjoy from the bees, no one wants to imagine a world without them, but that is exactly what beekeepers and scientist alike are worried about. Since 2006 bee populations everywhere have been declining at alarming rates. Bees are simply disappearing from their hives (presumably to die), leading to the eventual collapse of the entire hive. Since the mid-2000s beekeepers have lost 30 percent of their hives and some individual losses have been as high as 90 percent. This alarming phenomenon is known as Colony Collapse Disorder (CCD) and perhaps the worst part is that no one knows exactly why it is happening.

Numerous theories abound, but most research on CCD is currently focused on four potential culprits: management stressors, parasites, pathogens, and environmental stressors.

• *Management Stressors*. Today the production of honey is just one small piece of beekeeping. The far more financially lucrative side of beekeeping involves renting bees out as pollinators. Three quarters of all the bees in America are trucked across the country each year to help pollinate commercial crops. Packed up on shipping trucks, bees are often given supplemental food in the form of sugar or high fructose corn syrup to sustain them. The overcrowded conditions, poor nutrition, and stress this migration involves takes its toll on the bees. Some point out that this lack of concern for the health of the bees in exchange for profit is all too similar to modern beef and chicken operations.

• *Parasites*. One particularly problematic creature to the bees is the varroa mite. Not unlike a tick, this mite feeds on the blood of honeybees and leads to a weakening of the colony. If left untreated, a varroa mite infestation can wipe out an entire bee colony.

• *Pathogens*. In general, no one pathogen is associated directly with CCD, but an overall increase in viruses and bacteria has been seen as they are spread much more easily than ever before due to current management practices.

• *Environmental Stressors*. We have drastically decreased the availability of food sources for bees by exchanging native vegetation with huge swaths of monocrops. These crops are often genetically modified and sprayed heavily with pesticides. Besides potentially causing outright death, pesticides weaken bees' immunity and may disrupt their cognitive and communication abilities. This is just one more reason to support organic agriculture.

Most likely it is a combination of these factors that is causing CCD. When bees are made weak by the stress of travel, environmental changes, nutrient deficiencies, and pesticides, they are less able to resist pathogens and agricultural chemicals, creating a vicious cycle. In other words, CCD is more than likely caused by human. Protecting the health of the bees goes far beyond just saving this little insect, it protects our health (and food supply) too!

ENVIRONMENTAL CHANGES

Some also believe that the "spraying" of chemtrails IS also resulting in the mass die-off of our honeybees. This is in addition to the pesticides (Round-Up) being used on U.S. crops.

Go to: Geoengineeringwatch.org
Also has a "Contact" icon at the top of the internet page and on Facebook.
Contact - Dane Wigington
P.O. Box-9
Bella Vista, CA 96008

Share / Save

Like 1.7K people like this. Sign Up to see what your friends like.

We only need to put a crack in the dam of silence and secrecy on the climate engineering issue, then the whole dam will finally break. This 30 second time-lapse film clip is yet another tool to help wake people up. We must all make everyday count in this battle. My sincere gratitude to David Weiss for making this excellent and revealing video.
Dane Wigington
geoengineeringwatch.org

Dane Wigington is very knowledgeable about the chem-trail (geoengineering) issue. He has done extensive research.

Content was blocked because it was not signed by a valid security certificate.

For more information, see "About Certificate Errors" in Internet Explorer Help.

28 Responses to *Toxic Skies, Call For Action*

1. *kirk mannor* says:
September 11, 2015 at 5:36 am

Just found out that there is a virus going around Ohio and the rest of the US, I think my five year old son has it, big phrama is sure going to profit from this one, when they spray they can add any concoction they want , this is most concernning , how they can get away with this with

Thank you for the health tip. I am going to apply this to my morning regimen.

Ms. JS

Reply

6. *Jamie* says:
December 6, 2014 at 11:25 am

Hi, I'm in Calgary, Alberta, Canada and my skies are streaked day and night which I just became recently aware of geoengineering etc. I agree that there's not enough retaliating from the masses but how do they get informed in the first place?! Where do I find the information about the "forced down" jets? Can you post the links please ? And where do we go to get answers? If you are in the states can't you sue someone for aggravated assault if these sprays are affecting your health AGAINST YOUR WILL?! I definitely DO NOT consent to the actions of what's going on-and if its supposedly being done to control climate control.... Who the hell voted in favor?!?! Or no one gets to have a say?!?! OMG My wish that my children were safe in this world is like a streak in the sky-gone with the wind!!!

Reply

7. *Katherine L.* says:
December 4, 2014 at 3:47 pm

Let me just say that a shot of Braggs Apple Cider Vinegar in the morning (down with juice) helps eliminate heavy metals. This is not the only thing one can do but I do this. Until the masses finally wake up and DEMAND this end, we have to do what we can. This change is going to take mass mobilizations. When people have had it! then.

Reply

8. *Debbie Galassi* says:
December 4, 2014 at 12:47 am

Amen!;)

Reply

9. *morgan* says:
November 25, 2014 at 5:53 pm

Its happening on a regular basis in Illinois midwest now too. It scares me. I've heard they're doing it Canada but not hiding it.

Reply

10. *Jane* says:

3-4-17

Dear Health Department

Hello, my name is "Ray Battle" and I live in "Cooper, Tx." ... I have major concern about a "Power Plant" that has been on the "Black" community side of town since I was born in 1976 here in "Delta County"!! I fell that it is "Un Safe & Un Healthy" for it to be in "Our" community!! Exposing us to all types of "Radiation" for "Years" on "Our" side of town as they "Call" it... We've signed petitions that raised our concerns for years that never got "Nowhere" in this mostly white ran town!! Sir, could someone "Please" come talk to me and other "Blacks" in "Our" community is on the "East Side" of "Delta County"!! Because something "Needs" to finally "Done" about the major "Health Risk" this brings to "Our Community"!..

Thanks
& God Bless...
Ray Battle

RECEIVED
2017 MAR 15 AM 10:40
OFFICE OF THE
EXECUTIVE SECRETARIAT

3-4-17

Dear, Mr. Cochran

Hello, Sir, I've wrote before...

(b) (6)

Thanks & God Bless!!

P.S. Lawyers Info: (b) (6)

(b) (6)

(b) (6)

<<Prev Rule Next Rule>>

Texas Administrative Code

TITLE 37	PUBLIC SAFETY AND CORRECTIONS
PART 9	TEXAS COMMISSION ON JAIL STANDARDS
CHAPTER 260	COUNTY CORRECTIONAL CENTERS
SUBCHAPTER B	CCC DESIGN, CONSTRUCTION AND FURNISHING REQUIREMENTS
RULE §260.154	Temperature Control

Temperature levels shall be reasonably maintained between 65 degrees Fahrenheit and 85 degrees Fahrenheit in all occupied areas.

Ares ues set on 72

Source Note: The provisions of this §260.154 adopted to be effective December 19, 1994, 19 TexReg 9526.

List of Titles | Back to List

HOME | TEXAS REGISTER | TEXAS ADMINISTRATIVE CODE | OPEN MEETINGS

(b) (6)

March 3, 2017

Battle I have provided you a copy of the temp and a copy of Jail Standards policy. Mrs. Janet was trying to make sure you got cooled off faster considering at that time you was still hot. So that was an option you chose not to take.

Captain

S Johnson

(b) (6)

(b) (6)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

APR 5 2017

Luis Figueroa Nieves, President
The Battery Recycling Company, Inc.
PR2, Km 72.2
Arecibo, Puerto Rico 00612

Dear Mr. Figueroa:

The U.S. Environmental Protection Agency (EPA) is in receipt of your two email communications addressed to EPA Administrator Scott Pruitt and your Congressional Representative, Jennifer Gonzalez, dated March 14 and 15, 2017. The emails have been referred to me for reply.

In your emails, you questioned cleanup activities by EPA at the Battery Recycling Site (the "Site") in Arecibo, Puerto Rico, and the costs incurred by EPA and The Battery Recycling Company, Inc. (TBRC) to clean up lead contamination there. You also asserted that EPA has delayed TBRC's sale of one of two furnaces at the Site, and discussed the possibility of reopening your facility in the future.

As you know, since 2011, EPA Region 2 has been working with you and your company to clean up lead contamination caused by TBRC's operations. We have done so pursuant to federal environmental laws, including the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA) (also known as the Superfund law).

On June 7, 2011, EPA and TBRC entered into an administrative Settlement Agreement and Order on Consent under CERCLA for the removal of, among other things, lead-contaminated soil in a cattle pasture adjacent to the facility, as well as lead from the facility that had been tracked into the vehicles and homes of TBRC employees. As you know, some of the children of TBRC employees were found to have significantly elevated blood lead levels. On February 21, 2012, EPA and TBRC entered into a Consent Agreement and Final Order pursuant to the Solid Waste Disposal Act, as amended. The Agreement required full enclosure of furnaces and baghouses at the Site, among other requirements. Throughout EPA's negotiation of these settlements, EPA's objective was to ensure the continued compliance by TBRC with environmental laws, while the company remained in operation.

In the spring of 2014, TBRC temporarily shut down operations due to the economic downturn of the secondary lead market. TBRC failed to comply with the 2012 Consent Agreement and did not comply with portions of the 2011 Settlement Agreement. In September 2014, EPA therefore took over the remainder of the removal work called for under the 2011 Agreement.

Following the temporary shutdown of TBRC's operations, EPA assessments conducted under CERCLA between January and April 2016, which evaluated further removal activities and the

proposed listing of the Site on the Superfund National Priorities List, indicated elevated levels of lead contamination throughout the Site, including in surface water runoff and in fugitive emissions from the movement of lead slag piles. EPA has been conducting additional cleanup actions, including controlling lead-contaminated storm water and removal of lead slag piles. To date, EPA has incurred costs of approximately $9.8 million to address the hazardous conditions at the Site. EPA has determined that substantial additional cleanup work will be necessary, and so the Site was proposed for listing on the National Priorities List on September 9, 2016.

In March 2016, EPA learned that you were attempting to remove and sell TBRC equipment from the Site without proper decontamination, although you had been informed of EPA's ongoing Site assessments and the elevated levels of lead contamination throughout the Site. As a result, in May 2016, EPA issued an administrative order under CERCLA to TBRC, as well as to you and your wife as owners of the Site real property, to prevent the removal of equipment or other assets from the Site without prior decontamination. EPA has been working with you since then to establish appropriate decontamination procedures in order to allow material to be removed from the Site. EPA has commented repeatedly on your proposed Decontamination Work Plan. To date, EPA has not approved the plan, for reasons including the need for TBRC to propose a final disposal location for the waste that can be approved by EPA.

In recent months, EPA, TBRC and FirstBank Puerto Rico (FirstBank), the holder of security interests in real property and equipment at the Site, have been negotiating an agreement under Section 122(h) of CERCLA (the "Cost Agreement") for, among other things, the sale of nearly all of TBRC's equipment at the Site, with payment of some of the proceeds to EPA, in partial reimbursement of EPA's past response costs. TBRC and FirstBank are separately entering into an agreement for the sale of the smaller of two furnaces at the Site, with FirstBank to receive a portion of the proceeds from the sale. As you know, that furnace is heavily contaminated with lead. Therefore, its sale and removal from the Site should not occur before the Decontamination Work Plan is approved by EPA. EPA urges you to complete the plan promptly.

EPA is awaiting final responses from you and FirstBank on the draft Cost Agreement, a further draft of which EPA sent to the parties on March 15, 2017, and the Decontamination Work Plan, comments on which were sent to you on December 21, 2016. The outstanding issues on the Decontamination Work Plan must be resolved before EPA can finalize and sign the Cost Agreement. EPA has worked diligently to negotiate the Cost Agreement with both TBRC and FirstBank and to provide revised drafts of the Agreement to the parties as swiftly as possible. EPA hopes to hear from your attorney and FirstBank soon so that the negotiations on the terms of the document can be concluded.

You also stated in your email that you would like to reopen operations at the Site. As you know, the Commonwealth of Puerto Rico has withdrawn TBRC's permits to operate as a lead smelter. In addition, as noted above, the Site is contaminated with lead, and EPA's cleanup actions are ongoing. To the extent that you or your company are permitted to reopen operations at the facility, it is, of course, essential that no recontamination of the Site occur.

If you would like to discuss this matter further, please contact John Prince, Acting Director of the Emergency and Remedial Response Division, at 212-637-4380, or have your attorney contact Argie Cirillo of our Office of Regional Counsel at 212-637-3178.

Sincerely,

for Catherine R. McCabe
Acting Regional Administrator

Wed Mar 15 12:13:35 EDT 2017
Hope.Brian@epamail.epa.gov
FW: Case with EPA
To: CMS.OEX@epamail.epa.gov

From: Info Battery [mailto:info@batteryrec.com]
Sent: Wednesday, March 15, 2017 9:34 AM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>; jenniffer.gonzalez@mail.house.gov
Cc: Cirillo, Argie <Cirillo.Argie@epa.gov>; 'Carlos Colón Franceschi' <ccf@tcmrslaw.com>
Subject: FW: Case with EPA

Buenos días:

Quisiera aclarar en cuanto a mi mensaje anterior, que en mi opinión la Lcda. Argie Cirillo siempre ha obrado de forma profesional y diligente siguiendo las practicas, procedimientos y reglas que tiene la EPA en vigor y que en mi mensaje quería expresar mi deseo de que la EPA cambie y flexibilice dichas reglas y sus políticas para poder aplicar y encontrar soluciones innovadoras que permitan que empresas pequeñas como la mía enfrenten reglas que protejan el ambiente y a la vez le permitan operar. Nuestra empresa reciclaba una gran parte de las baterías de automóvil generadas en Puerto Rico que ahora son enviadas a los Estados Unidos a ser procesadas. Es beneficioso para Puerto Rico que nuestra empresa vuelva a operar.

Translated by Google translator

Good Morning:

I would like to clarify as to my previous message, that in my opinion the Lcda. Argie Cirillo has always worked in a professional and diligent manner following the practices, procedures and rules that have the EPA in force and in my message I wanted to express the desire that the EPA change and flexibilice these rules and its policies to be able to apply and find solutions Innovations that allow small companies like mine to face rules that protect the environment while allowing it to operate. Our company recycled a large part of the car batteries generated in Puerto Rico that are now sent to the United States to be processed. It is beneficial for Puerto Rico that our company re-operate.

Regards,

Luis R. Figueroa, President

Translated by Google translator

Good morning:

I am writing to you very respectfully to see how they can help reopen operations of The Battery Recycling Company (TBR) in Arecibo, Puerto Rico.

The Battery Recycling Company closed operations for EPA requirements since they changed lead standards which we could not meet in the time they gave. To meet these new standards, the company had to invest over $ 3,000,000.00 which it did not have available. The EPA has spent much more of that amount on a cleanup they are performing at the facilities. If that money had been sought for a way to join TBR and then be reimbursed, TBR would still be operating and the $ 3,000,000.00 would have been paid to the EPA and the cost of the EPA would be 0. This company created 150 jobs.

The company is still in a position to reopen operations but has not been able to do so because of the closure of operations it ran out of capital. In teams, the company has over $ 20,000,000.00 which will be lost if the operation is not reopened.

I had a sale of one of the ovens over 16 months ago and I am dealing with EPA to get the authorization and because of their bureaucracy they have not given the authorization for the sale. With the sale of the furnace the company would be freed from debt with the bank and it would be much easier to get an investor to reopen operations but it has not been given for the reasons known only to the EPA.

The sale of the furnace was carried out and the client was in Puerto Rico with 5 officers of his company and the day before the signing of the sale, Argie Cirillo of EPA contacted the bank's lawyers to stop the transaction. I do not know if customers are still interested in the business since they invested a lot of money in the transaction.

I do not know what the EPA's parameters are to continue spending money when the facility can be reopened. I understand that the company will soon be on a Superfund listing.

TBR is a local capital company and is listed as a minority company. I know this is a difficult job to raise since TBR does not have lobbyists like other companies have to find a solution to this problem, but the effort you put into this project will be rewarded with a better Puerto Rico.

The case has EPA Region 2, Ms. Argie Cirillo.If you have any questions or need more information you can contact this server preferably to my phone 787-635-7840 or my email lrfigueroa@batteryrec.com

Regards,

Luis R. Figueroa, President
The Battery Recycling Company
Tel (787) 880-5373
Cel (787) 635-7840
Email: lrfigueroa@batteryrec.com

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2016.0.7998 / Virus Database: 4756/14119 - Release Date: 03/15/17

Wed Mar 15 12:18:29 EDT 2017
Hope.Brian@epamail.epa.gov
FW: Renewable Energy
To: CMS.OEX@epamail.epa.gov

Forward FYI

From: GaryZeppelin [mailto: (b) (6)
Sent: Wednesday, March 15, 2017 10:35 AM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: Renewable Energy

If you want to grow jobs why don't you remind President Trump that clean renewable energy is growing at 4 times the rate of fossil fuels and provides high paying LONG TERM jobs as opposed to those pipeline jobs. Unfortunately he won't listen because he, Bannon and Ryan are all environmental haters. With all due respect, I see why he put you in charge of the EPA. Anyone who sues the EPA 14 times is the type of person that fits right into his administration. I actually hope he follows through with his executive orders to pollute the air and water because midterm elections are coming up and this man and his administration are sealing their own fate. Then we can put responsible people back in charge of cleaning up what he's destroying.

Wed Mar 15 16:50:00 EDT 2017
Hope.Brian@epamail.epa.gov
FW: SBA Advocacy's Public Comment Letter re EPA's Proposed Regulation re TCE Uses in Aerosol Degreasing and Spot Cleaning
To: CMS.OEX@epamail.epa.gov

For the Daily Reading File

From: Waqar, Tayyaba [mailto:tayyaba.waqar@sba.gov]
Sent: Wednesday, March 15, 2017 2:27 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Cc: Wolf, Joel <Wolf.Joel@epa.gov>; Krasnic, Toni <krasnic.toni@epa.gov>
Subject: SBA Advocacy's Public Comment Letter re EPA's Proposed Regulation re TCE Uses in Aerosol Degreasing and Spot Cleaning

Dear Administrator Pruitt:

I am writing to inform you that the SBA Office of Advocacy has submitted comments to on EPA's notice on "Trichloroethylene; Regulation of Certain Uses Under TSCA § 6(a)" today, on March 15, 2017. Attached is a copy of the comments.

Please contact me if you have any questions.

Sincerely,

Tayyaba Waqar

Assistant Chief Counsel for Environmental Policy

SBA // Office of Advocacy

409 3rd St. SW, Washington, D.C. 20416

twaqar@sba.gov

202.205.6790 202.481.6536

U.S. SMALL BUSINESS ADMINISTRATION
OFFICE OF ADVOCACY
REGULATION • RESEARCH • OUTREACH

March 15, 2017

VIA REGULATIONS.GOV

The Honorable Scott Pruitt
Administrator
United States Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington, DC 20460-0001

Re: Trichloroethylene; Regulation of Certain Uses Under TSCA § 6(a) (Docket ID. EPA–HQ–OPPT–2016–0163)

Dear Administrator Pruitt:

The U.S. Small Business Administration's (SBA) Office of Advocacy (Advocacy) submits the following comments in response to the Environmental Protection Agency's (EPA) proposed rule, "Trichloroethylene; Regulation of Certain Uses Under TSCA § 6(a)."[1] Safe chemical use and prevention of hazardous exposure to chemicals are a priority for small business formulators and users to be able to protect both the consumer and their employees. Small businesses, however, are concerned that the rule does not consider important compliance costs that will be imposed on them. Small businesses have also expressed their disappointment that they were not afforded an opportunity to provide their feedback at the Small Business Advocacy Review panel. Finally, small businesses have also raised concerns with EPA's basis (i.e., risk assessment) for its regulatory proposal for the use of trichloroethylene (TCE) in aerosol degreasing and spot removal in dry cleaning facilities. Advocacy urges EPA to carefully address the small business concerns and carefully reconsider the impact of its proposal on small businesses.

The Office of Advocacy

Congress established Advocacy under Pub. L. 94-305 to represent the views of small entities before federal agencies and Congress. Advocacy is an independent office within the U.S. Small Business Administration (SBA); as such the views expressed by Advocacy do not necessarily reflect the views of the SBA or the Administration. The Regulatory Flexibility Act (RFA),[2] as

[1] 81 Fed. Reg. 91592 (December 16, 2016).
[2] 5 U.S.C. §601 et seq.

amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA),[3] gives small entities a voice in the rulemaking process. For all rules that are expected to have a significant economic impact on a substantial number of small entities, federal agencies are required by the RFA to assess the impact of the proposed rule on small entities and to consider less burdensome alternatives. EPA is required by the RFA to conduct a SBREFA panel to assess the impact of the proposed rule on small entities,[4] and to consider less burdensome alternatives.

The Small Business Jobs Act of 2010 requires agencies to give every appropriate consideration to comments provided by Advocacy.[5] The agency must include, in any explanation or discussion accompanying the final rule's publication in the Federal Register, the agency's response to these written comments submitted by Advocacy on the proposed rule, unless the agency certifies that the public interest is not served by doing so.[6]

Background

Under Section 6 of the Toxic Substances Control Act (TSCA),[7] if EPA determines after completing a risk evaluation that a chemical substance presents an unreasonable risk of injury to health or the environment, EPA must impose one or more specific requirements so that the chemical substance no longer presents such a risk.[8] TSCA provides EPA the authority to address the risks resulting from the manufacture (including import), processing, distribution in commerce, and use of chemicals, as well as any manner or method of disposal of chemicals.[9]

The Frank R. Lautenberg Chemical Safety for the 21st Century Act (Lautenberg Act),[10] which recently amended TSCA, allows EPA to publish a proposed rule for a chemical listed in the 2014 update to the TSCA Work Plan for Chemical Assessments, as long as EPA published a completed risk assessment prior to June 22, 2016, the date of enactment of the Lautenberg Act.[11] TCE is among the chemicals listed in the 2014 update to the TSCA Work Plan for Chemical Risk Assessments. EPA completed the final risk assessment for TCE uses in June 2014, well before the enactment of the Lautenberg Act.[12]

---

[3] Pub. L. 104-121, Title II, 110 Stat. 857 (1996) (codified in various sections of 5 U.S.C. §601 et seq.).
[4] Under the RFA, small entities are defined as (1) a "small business" under section 3 of the Small Business Act and under size standards issued by the SBA in 13 C.F.C. § 121.201, or (2) a "small organization" that is a not-for-profit enterprise which is independently owned and operated and is not dominant in its field, or (3) a "small governmental jurisdiction" that is the government of a city, county, town, township, village, school district or special district with a population of less than 50,000 persons. 5 U.S.C. § 601.
[5] Small Business Jobs Act of 2010 (PL. 111-240) §1601.
[6] *Id.*
[7] 15 U.S.C. § 2601 et seq. (1976)
[8] See 15 U.S.C. § 2605(a).
[9] *Id.*
[10] Pub. L. 114–182 (June 22, 2016).
[11] See 15 U.S.C. § 2625(l)(4).
[12] EPA. 2014. TSCA Work Plan Chemical Risk Assessment. Trichloroethylene: Degreasing, Spot Cleaning and Arts & Crafts Uses. CASRN: 79–01–6. EPA/740/ R1/4002. Office of Chemical Safety and Pollution Prevention, Washington, DC. https://www.epa.gov/assessing-andmanaging-chemicals-under-tsca/tscawork-plan-chemical-risk-assessment-0.

In June 2015, EPA formally notified Advocacy of its intent to convene a SBREFA panel for a rulemaking to address its identified risks for TCE use in spot cleaning by dry cleaners, in commercial and consumer use in aerosol spray degreasers and in use for open-top vapor degreasing. Subsequently, in June 2016, EPA convened a SBREFA panel for a potential rulemaking to address its identified risks for TCE but the panel process was limited only to a discussion of regulatory options for TCE use in open-top vapor degreasing.

On December 16, 2016 EPA published its first TSCA Section 6(a) proposal since the passage of the Lautenberg Act, to regulate certain uses of TCE. EPA proposed a determination of unreasonable risk for TCE use in aerosol degreasing and use in spot cleaning by dry cleaning facilities. The proposal includes a prohibition on the manufacture (including import), processing, and distribution of TCE for these uses, and included downstream notification requirements. The proposal also prohibits the commercial use of TCE in aerosol degreasing and spot cleaning in dry cleaning facilities.

Advocacy Involvement in the Rulemaking Process

Throughout the rule development process Advocacy engaged with EPA and the Office of Management and Budget (OMB) Office of Information and Regulatory Affairs (OIRA) as well as with small businesses and small business representatives. In addition, following the publication of the proposed rule, Advocacy held a roundtable on March 10, 2017 at which EPA presented its proposal. Advocacy has had extensive contact with various small businesses and small businesses representatives regarding their concerns with the proposal.

Advocacy's comments

I. EPA Should Withdraw the Proposed Rule and Reassess the TCE Uses in This Rule as Part of its Ongoing Risk Evaluation of TCE

The Office of Advocacy urges EPA to withdraw this proposed rule. There is no statutory mandate for this regulation at this time. While it is true that under the Lautenberg Act, the agency may regulate TCE use based on the existing final risk assessment,[13] Congress did not require the agency to issue rules based on that risk assessment. Moreover, as required by the Lautenberg Act,[14] EPA recently identified a list of ten high-priority chemicals for which it will begin chemical risk evaluations, and TCE was among those high-priority chemicals.[15] As a result, in the next three years, EPA will be working to complete a new risk assessment for all uses of TCE.

Small business representatives have expressed several concerns with EPA's existing final risk assessment. Specifically, they have pointed to concerns with EPA's reliance on a single study that is unreproducible and was used to estimate the non-cancer risks. They have also noted that this study has been subject to criticism in published literature and by other regulatory agencies

[13] See 15 U.S.C. § 2625(l)(4).
[14] 15 U.S.C. § 2605 (b)(2)(a).
[15] 81 Fed. Reg. 91927 (December 19, 2017).

because of data quality concerns.[16] Small business representatives highlighted criticism by peer reviewers of the risk assessment, who also expressed similar concerns with the study and the quality of the risk assessment overall.

Moreover, small businesses representatives have also expressed concerns with the use of hypothetical information to model exposure for the use of aerosol degreasing and reliance on a single study to determine exposure for the use of spot cleaning by the dry cleaning industry. Small business representatives are concerned that the agency did not use any emission or monitoring data to determine the exposure for aerosol degreasing. EPA used information from a 2007 study on spotting chemicals to estimate the releases of TCE and associated inhalation exposures to workers from spot cleaning operations in dry cleaning facilities.[17] Small business representatives expressed concerns that the 2007 study was prepared for California and may not be representative of all the U.S. dry cleaning facilities.

Furthermore, small businesses representatives of the dry cleaning industry have expressed concerns with inclusion of TCE use as a spot cleaning agent in dry cleaning facilities as part of the final risk assessment. The final risk assessment, entitled "*Degreasing, Spot Cleaning, and Arts & Crafts Uses*," estimated non-cancer and cancer risks for workers and occupational bystanders for using TCE-containing spot cleaners in dry cleaning facilities.[18] However, the draft risk assessment, entitled, "*Degreasing and Arts & Crafts Uses*," did not analyze any risks for the use of TCE-containing spot cleaners used in dry cleaning facilities.[19] The draft risk assessment evaluated commercial and consumer use of TCE as a solvent degreaser and consumer use of TCE as a spray-applied protective coating for arts and crafts.[20] EPA explains that it evaluated the commercial use of TCE for spot cleaning at dry cleaning facilities in the final risk assessment in response to comments and information provided by the peer reviewers.[21] While EPA emphasizes that it used a peer-reviewed approach to do this additional evaluation, it is obvious that the evaluation of this additional use in the final risk assessment was not actually peer reviewed itself. In addition, small business representatives contend that because the use of TCE as a spotting agent was added to the final risk assessment at the last minute, there was no notice that EPA was addressing spot cleaning and consequently the dry cleaning industry did not participate in its review. OMB's bulletin on "Final Information Quality Bulletin for Peer Review" requires that important scientific information be peer reviewed.[22] The TCE risk assessment for the use of spot cleaning is the basis for EPA's regulatory proposal for that use. As such, it should be peer reviewed. Under the Lautenberg Act, TSCA specifically requires that in carrying out actions under Section 6, EPA must use scientific information in a manner

---

[16] See, for example, Hardin, B, *et al.*, Trichloroethylene and cardiac malformations, Environ. Health Perspect. 112: A607-8 (2004); Watson, R., *et al.*, Trichloroethylene-contaminated drinking water and congenital heart defects: a critical analysis of the literature, Repro. Toxicol. 21: 117-47 (2006); and California EPA Public Health Goal for Trichloroethylene in Drinking Water (July 2009).
[17] 81 Fed. Reg. 91608.
[18] See 81 Fed. Reg. 91598.
[19] *Id.*
[20] *Id.*
[21] *Id.*
[22] 70 Fed. Reg. 2664 (January 14, 2005).

consistent with the best available science, and must consider the extent of independent verification or peer review of that information.[23]

Small businesses have also expressed concerns with EPA's supplemental analyses. EPA performed supplemental analyses to identify non-cancer risk and cancer risks for the commercial aerosol degreasing use scenario; the 2014 final risk assessment only identified such risks for consumers and residential bystanders.[24] EPA also conducted supplemental analysis of various parameters of exposure scenarios on the use of TCE for spot cleaning in dry cleaning facilities.[25] EPA completed these analyses after the final risk assessment was issued and after the passage of the Lautenberg Act.[26] Furthermore, these analyses have not been peer reviewed, although EPA has stated that they will be peer reviewed before the final rule is issued.[27] The requirements of the OMB bulletin on peer review and the TSCA requirement of peer review apply to these analyses as well for the same reason stated above for the spot cleaning use in the final risk assessment.

EPA notes numerous uncertainties in its risk assessment regarding the number of workers exposed and the inputs used in models to estimate exposures.[28] EPA admits to using a number of assumptions in both its final TCE risk assessment and the supporting analysis to develop estimates for occupational and consumer exposure scenarios and to develop the hazard/dose response and risk characterization.[29] Among these, EPA includes uncertainties in the number of workers exposed to TCE and in the inputs to the models used to estimate exposures.[30] EPA also includes uncertainties in the number of workers exposed to TCE for spot cleaning in dry cleaning.[31] It is not clear why EPA based its analysis on so many assumptions. However, by redoing the assessment, EPA will have the opportunity to address these shortcomings by engaging the public and seeking independent peer review.

Recommendation

Advocacy recommends that EPA should withdraw the proposed rule. Advocacy further recommends that EPA should reevaluate the TCE use in aerosol degreasing and spot cleaning as part of the ongoing risk evaluation of TCE uses. Advocacy also recommends that EPA seek peer review on all scientific analyses prior to their use as a basis for any future regulations.

II. EPA Should Reassess Its Certification is the Rule

If the agency decides to proceed with its rulemaking, the Office of Advocacy urges EPA to reassess the impacts on small businesses because EPA's RFA certification is incorrect. EPA certifies that the proposed rule will not have a significant impact on a substantial number of

---

[23] 15 USC § 2625(h)(5).
[24] 81 Fed. Reg. 91602.
[25] *Id.* at 91599.
[26] Risk assessments published after the passage of the Lautenberg Act cannot be the basis of the new regulations.
[27] 81 Fed. Reg. at 91599.
[28] *Id.* at 91617-18.
[29] *Id.*
[30] *Id.*
[31] *Id.*

small entities. However, after hearing from small businesses and further analysis of the industry, there is evidence that EPA's certification is not supported. More specifically, EPA's factual basis that alternatives are available to users with similar costs and performance is inaccurate. Therefore, EPA should reevaluate their compliance with the RFA.

In its analysis, EPA predicts only the blenders of TCE spotting and aerosol products will experience a measureable impact from the proposed rule.[32] The analysis assumes that the commercial users of TCE products, specifically those in dry cleaning and automotive repair industries, will not experience any cost from the rule because alternative products are available at similar or lower cost.

However, small businesses have noted that EPA's analysis is incomplete. EPA's analysis does not account for additional steps needed when using alternative products nor the feasibility of the alternatives in some processes. Alternatives to TCE for some cleaning processes require additional time and labor to be as effective. This additional labor requirement will add a measurable cost to these industries that are not currently accounted for by EPA. The agency refers to the Dry-cleaning and Laundry Institute as stating that not all dry cleaning facilities use TCE and that other effective alternatives exist.[33] Small business representatives of the dry cleaner industry disagree with EPA's assertion that the available alternatives are similar in performance as the TCE-containing spot cleaners. In particular, small business representatives of the dry cleaning industry stated that alternatives such as mixtures of glycol ethers and other hydrocarbon solvents do not have a high enough KB value[34] to be able to dissolve nonwater stains as effectively and as a result, their use will increase the time it takes to clean nonwater stains. The small businesses representatives also reported that the individual responsible for spot cleaning is often the highest paid employee.

A small chemical manufacturer further explained that there is no comparable alternative for TCE-based spot cleaners because these cleaners do not leave any residue behind on the garment. The small chemical manufacturer added that in comparison to other products, TCE dries invisibly whereas others often leave a ring or a water mark and as a result the garment is required to be reprocessed and repressed. EPA relies on a series of reports by Dr. Kathleen Wolf, director of the Institute for Research and Technical Assistance, to support its claim for spot cleaning alternatives being just as effective or similar in performance as TCE-based spot cleaners.[35] The Wolf studies used by EPA state that the products are effective and of similar costs, but the reports are vague on the details and do not specifically evaluate the time it takes to use the products or alternative methods needed.

EPA also estimates that costs to users of aerosol degreasers to be negligible because of alternative products being available and similarly priced. [36] Small business representatives also

---

[32] See, EPA (US Environmental Protection Agency). 2016. Economic Assessment for Trichloroethylene (TCE) under TSCA Section 6. Office of Chemical Safety and Pollution Prevention, Washington, DC. [hereinafter Economic Analysis].
[33] 81 Fed. Reg. at 91611.
[34] The Kauri-butanol value ("Kb value") is an international, standardized measure of solvent power for a hydrocarbon solvent, and is governed by an ASTM standardized test, ASTM D1133.
[35] See, Economic Analysis, *supra* note 27.
[36] 81 Fed. Reg. at 91616.

expressed disagreement with EPA's assertion that alternative products for TCE-based aerosol degreasers are as effective. In particular, for end users that use TCE-based aerosol degreasing products to clean intricate electronic parts, there are concerns that using a water-based degreaser will add a step to the normal process because it will require the addition of a coating product to protect against water damage. Small business representatives also explained that for aerosol degreasing, products are used for specific purposes; the alternatives with lower flash points and those that are water-based pose fire and electrocution hazards for the users.

Due to the characteristics of the industries affected by this rule, an apparently small added cost, like that of additional labor, can produce a significant impact (see Table below). Based on EPA's guidance, to determine whether there is a significant economic impact, the agency describes defined lower threshold as compliance costs of one percent of sales and the higher threshold as compliance costs of three percent of sales.[37] The agency states that the upper threshold defines a level of economic impact that would be unquestionably significant for a small entity.[38] In the dry cleaning industry, which has a high concentration of very small businesses, a cost as small as $2,500 annually can be a significant impact for almost 90 percent of small businesses in that industry. Commenters in this industry have indicated that an annual cost of $8,000 could be a conservative estimate for the added costs they face by switching from TCE. For the automotive repair industry, a similar cost of $8,000 would also be significant for the majority of the small business community.

Industry (NAICS) *Size (Annual Revenue)*	**Percent of All Small Businesses**	**Average Revenue per Firm**	**Needed Cost to Reach % of Revenue**	
			1%	**3%**
Coin-Operated Laundries and Drycleaners (812310)				
Micro (<$100,000)	29%	$57,609	$576	$1,728
Very Small ($100,000-$499,999)	62%	$214,638	$2,146	$6,439
Drycleaning and Laundry Services (except Coin-Operated) (812320)				
Micro (<$100,000)	23%	$53,564	$536	$1,607
Very Small ($100,000-$499,999)	61%	$241,620	$2,416	$7,249
General Automotive Repair (811111)				
Micro (<$100,000)	16%	$51,988	$520	$1,560
Very Small ($100,000-$499,999)	54%	$271,323	$2,713	$8,140

Data from the Census Bureau's Statistics of US Businesses (2012). Terms Micro and Very Small are for descriptive reasons only.

Recommendation

Advocacy recommends that EPA reassess its certification under the RFA and include the additional compliance costs to the users in its analysis.

[37] EPA (US Environmental Protection Agency). November 2006. EPA's Action Development Process. Final Guidance for EPA Rulewriters: Regulatory Flexibility Act as amended by SBREFA. Office of Policy, Economic and Innovation, Washington, DC. Pg. 25. [hereinafter EPA RFA Guidance].
[38] *Id.*

III. EPA should Convene a SBREFA Panel to Learn about Small Business Impacts

EPA must and should convene a SBREFA panel. The RFA requires covered agencies like EPA to conduct special outreach efforts to ensure that small entity views are carefully considered prior to the issuance of proposed rule through the work of the SBREFA panel.[39] EPA has recognized in its guidance that such procedural requirements are intended to ensure that small entities have a voice when EPA makes policy determinations in shaping its rules.[40] Moreover, TSCA also directs the agency to consider "reasonably ascertainable economic consequences of the rule, including the likely effect of the rule on...small businesses..."[41] Experience has shown that the panel process results in better rules, better compliance, and reduced litigation. There are threefold benefits of a SBREFA panel: first, the process ensures that small entities that would be affected by a regulatory proposal are consulted about the pending action and offered an opportunity to provide information on its potential effects; second, a panel can develop, consider and recommend less burdensome alternatives if warranted; and finally, the agency benefits from the input from both real-world small entities and the panel's report and analysis prior to publication.

Based on the gaps in information and data and coupled with the concerns conveyed by small businesses, it appears that EPA did not engage in adequate outreach to small entities. Even if the agency ultimately certifies under the RFA, EPA's own guidance on the RFA states that as a matter of agency policy, "to the extent that you forsee that your rule will have an adverse economic impact on small entities, you should assess those impacts and make efforts to minimize them though consultation with the small entities likely to be regulated, while remaining consistent with applicable statutory requirements."[42]

EPA originally planned to convene a SBREFA panel for these uses, as noted in its formal notification to Advocacy, and the agency had solicited names for SERs to participate in such a panel. However, since EPA certified the rule, it did not follow through in convening the SBREFA panel. EPA would have benefited from the feedback of small businesses through the SBREFA panel process for these uses, especially since EPA has included various assumptions on a number of identified uncertainties. More importantly, because EPA's certification is not supported, the agency must convene a SBREFA panel to comply with the RFA.

Through a SBREFA panel, small entity representatives (SERs) help the panel (including the rulemaking agency) better understand the ramifications of the proposed rule. The participation of SERs provides extremely valuable information on the real-world impacts and compliance costs of agency proposals. For instance, as mentioned in the above section, EPA would have been informed about and would be able to account for the additional compliance costs identified by small businesses by convening a SBREFA panel for this rule. In addition, EPA could have obtained information to provide regulatory flexibilities for any potential critical or essential

---

[39] 5 USC § 609(d)(2).
[40] See EPA RFA Guidance, *supra* note 33, at 1.
[41] 15U.S.C. 2605§ (c)(2)(B).
[42] See EPA RFA Guidance, *supra* note 33, at 10-11.

uses.[43] EPA concluded that there are no specific aerosol degreasing uses for which TCE is critical because the agency has determined that the "a wide variety of effective substitutes are available."[44] Based on Advocacy's outreach efforts this may or may not be accurate as many small businesses and their representatives have expressed disagreement with the agency's conclusion that the available substitutes are as effective for their designed uses.

In the preamble, EPA has outlined a specific section on uncertainties which include uncertainties of costs for alternatives and reblending.[45] EPA admitted to additional uncertainties in benefit calculations due to its reliance on professional judgment to estimate the alternatives that users might choose to adopt and the potential risks for adverse health effects that the alternatives may pose.[46] EPA states that only a small percentage will switch to aqueous-cleaners, a quarter of users will switch to percholoretheyle and 1-bromopropoane and that the majority will switch to other alternatives for spot cleaning.[47] Small businesses have reported an unwillingness to invest in switching to percholorehttyele and 1-bromopropoane-based cleaners because of the ongoing review and potential regulatory actions by EPA regarding these chemicals. EPA should have engaged SERs to seek feedback on what alternatives users might realistically consider.

EPA also expresses uncertainty concerns with the estimate for the cost of reblending products and the time required to reblend those products.[48] EPA based its estimates on an automotive aftermarket parts products industry study and feedback received from a few blenders of aerosol degreasing products.[49] EPA, however, admittedly received no information from the dry cleaning spot cleaning product blender.[50] Through outreach and a SBREFA panel, EPA could have obtained that specific information from small businesses for dry cleaners and additional information for aerosol degreasing. EPA also assumes that it will take about six months for companies to reblend products but expressed uncertainty about whether there would be additional costs if the product is not available within that time.[51] The assumption for a six month time period to reblend products appears to be arbitrary as EPA does not provide a basis for this estimate. Specifically, EPA claims that the staggered compliance dates it has provided to implement the prohibition on manufacturing, processing, distribution in commerce (within 180 days after the date of the publication of the final rule) and commercial use (within 270 days after the date of publication of the final rule) will avoid undue impacts on the businesses involved.[52]

A small business formulator for an aerosol degreaser product relayed that it can take over a year to reblend and successfully test a replacement product. He also added that any alternative product may cost more either because of the chemical being used or the amount being used and the additional cost will likely have to be passed on to their customers. The small business formulator described that its degreaser is designed to clean a specific surface for a specific

---

[43] 15 U.S.C. § 2606(g) authorizes EPA to provide exemptions for critical and essential use.
[44] 81 Fed. Reg. at 91606.
[45] *Id.* at 91617-91618.
[46] 81 Fed. Reg. at 91602 and 91607.
[47] *Id.* at 91608.
[48] *Id.* at 91618.
[49] *Id.*
[50] *Id.*
[51] *Id.*
[52] *Id.* at 91624 and 91605 (aerosol degreasing) and 91610 (spot cleaning).

product and therefore serves a particular end user. It is a fair assumption that an unavailability of this degreaser may result in a loss of business from that end user. To provide a reasonable and a justifiable compliance time period, EPA would have been able to get feedback through the SBREFA panel and further examine any relevant regulatory flexibilities. For example, EPA could have considered a phase-out or a longer staggered compliance period to assist with a reasonable transition period under TSCA[53] and provide adequate time for innovation by considering a phase-out instead of a full ban.[54] TSCA allows EPA up to five years to require compliance.[55]

Recommendation

Advocacy recommends that to comply with the RFA, EPA convene a SBREFA panel to seek feedback from small businesses on the impacts of its proposed regulation of TCE use in aerosol degreasers and use in spot cleaners in dry cleaning facilities. Advocacy also recommends that EPA prepare an Initial Regulatory Flexibility Analysis after convening the SBERFA panel as required by the RFA.[56]

Conclusion

Small businesses have expressed concerns with the agency's risk assessment used to support the unreasonable risk determination for these TCE uses. Advocacy suggests that EPA withdraw the proposed rule and reassess the TCE uses in this rule as part of its ongoing risk evaluation of TCE uses. Small businesses have also identified additional costs that were not considered by the agency in determining the compliance costs for these businesses. Advocacy suggests that the agency reassess its compliance with the RFA to include these additional costs. Small businesses have also expressed concerns with the agency's decision not to convene a SBREFA panel for these uses. Advocacy suggests that EPA convene a SBREFA panel to learn about small business impacts of regulatory proposal, and to develop significant alternatives to the rule. Advocacy urges EPA to give full consideration to the above issues and recommendations. We look forward to working with you.

If you have any questions or require additional information please contact me or Assistant Chief Counsel Tayyaba Waqar at (202) 205-6970 or by email at twaqar@sba.gov.

Sincerely,

Major L. Clark III
Acting Chief Counsel
Office of Advocacy
U.S. Small Business Administration

[53] 15 U.S.C. § 2605(d)(1)(E).
[54] *Id.* at 2605(d)(1).
[55] *Id.*
[56] See 5 U.S.C. § 603.

Tayyaba Waqar
Assistant Chief Counsel
Office of Advocacy
U.S. Small Business Administration

Copy to: Dominic J. Mancini
Acting Administrator
Office of Information and Regulatory Affairs
Office of Management and Budget

Wed Mar 15 16:52:48 EDT 2017
Hope.Brian@epamail.epa.gov
FW: TCEQ Request
To: CMS.OEX@epamail.epa.gov

For the Daily Reading File

From: Richard Hyde [mailto:richard.hyde@tceq.texas.gov]
Sent: Wednesday, March 15, 2017 1:53 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: TCEQ Request

Administrator Pruitt,

Please let me know if you have any questions.

Thank you.

Richard A. Hyde, P.E.

Executive Director

Texas Commission on Environmental Quality

Office: 512.239.3900; 512.239.1317 (direct)

Fax: 512.239.3939

Richard.Hyde@tceq.texas.gov

Bryan W. Shaw, Ph.D., P.E., *Chairman*
Toby Baker, *Commissioner*
Jon Niermann, *Commissioner*
Richard A. Hyde, P.E., *Executive Director*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

March 15, 2017

VIA Fax: (202)501-1450
Email: Pruitt.scott@epa.gov and Hardcopy

The Honorable Scott Pruitt
Administrator
U.S. Environmental Protection Agency
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

RE: Request for Administrative Stay, Air Quality Designations for the 2010 Sulfur Dioxide (SO_2) Primary National Ambient Air Quality Standard – Supplement to Round 2 for Four Areas in Texas: Freestone and Anderson Counties, Milam County, Rusk and Panola Counties, and Titus County, 81 *Fed. Reg.* 89,870 (Dec. 13, 2016); Docket No. EPA-HQ-OAR-2014-0464

Dear Administrator Pruitt:

The Texas Commission on Environmental Quality (TCEQ) respectfully requests the U.S. Environmental Protection Agency (EPA) immediately stay the effective date of EPA's final action entitled Air Quality Designations for the 2010 Sulfur Dioxide (SO_2) Primary National Ambient Air Quality Standard – Supplement to Round 2 for Four Areas in Texas: Freestone and Anderson Counties, Milam County, Rusk and Panola Counties, and Titus County, published in the Federal Register on Dec. 13, 2016 (Final Rule).[1]

The Governor of the State of Texas submitted recommended designations for the 2010 SO_2 NAAQS, as required under section 107 of the Federal Clean Air Act (FCAA).[2] In all correspondence with EPA over a three-year period,[3] Texas consistently recommended EPA designate as unclassifiable all areas in Texas for which monitored data was not available.[4] When EPA asked for additional information from States and solicited public comment to inform

[1] 81 *Fed. Reg.* 89,870 (Dec. 13, 2016)
[2] FCAA §107(d)(1)(A), 42 U.S.C. § 7407(d)(1)(A)
[3] Letter from Governor Rick Perry to Alfredo Armendariz, Regional Administrator, U.S. EPA Region VI, June 2, 2011; Letter from Governor Rick Perry to Alfredo Armendariz, Regional Administrator, U.S. EPA Region VI, April 20, 2012; Letter from Executive Director Zak Covar to Jennifer Noonan Edmonds, Acting Director, Office of Air Quality Planning and Standard, U.S. EPA, March 18, 2013, Docket No. EPA-HQ-OAR-2012-0233
[4] *See* FCAA 107(d)(1)(A); 42 USC 7407(d)(1)(A): "...the Governor of each State shall submit to the Administrator a list of all areas or portions thereof) in the State designating as . . . (iii) unclassifiable, any area that cannot be classified on the basis of available information as meeting or not meeting the [NAAQS] for the pollutant."

Re: Docket No. EPA-HQ-OAR-2014-0464

their designations of several areas that had yet to be designated (including the three areas subject to the Final Rule), Texas again recommended an unclassifiable designation for any areas where monitored data was not available.[5]

The Final Rule, departing from years of agency practice, rejects Texas's recommended designations for three areas: Freestone and Anderson Counties, Rusk and Panola Counties, and Titus County where monitored data was unavailable. Instead, EPA, relying on a court entered consent decree and not scientific data nor the state's recommendation,[6] designated these areas nonattainment for the SO_2 NAAQS based on modeling data.[7] Texas believes EPA's designations in the Final Rule were incorrect and contrary to the FCAA and has filed petitions for judicial review in the 5th Circuit and D.C. Circuit Courts of Appeal.[8] Additionally, Texas and several states challenged entry of the consent decree upon which the Final Rule is based and have appealed the consent decree to the 9th Circuit Court of Appeals.[9]

EPA should immediately grant a stay of the effective date of the Final Rule. Section 705 of the Federal Administrative Procedures Act (APA) grants EPA authority to stay an agency order or final determination pending judicial review of such order or determination if the EPA finds that "justice so requires."[10] While FCAA section 307(d) is also authority for EPA to stay the effectiveness of rules, this particular provision of the Act applies when it is reconsidering the rule to be stayed. Texas is not asking EPA to reconsider the Final Rule.

Texas is asking for a stay of the effectiveness of the Final Rule under section 705 of the APA pending judicial review of the 9th Circuit appeal and the petitions for review in the D.C. and 5th Circuits. A stay under this provision can be granted where, "at a minimum, a rational connection between [a] stay and the underlying litigation," must be articulated.[11]

Texas and several other states intervened in the litigation that resulted in the consent decree that EPA acknowledges compelled the action taken in the Final Rule. The Federal District Court for the Northern District of California entered the consent decree over the objections of the Intervenor States and is currently on appeal to the 9th Circuit Court of Appeals. Oral arguments are scheduled for March 16, 2017. Texas and the intervenor states maintain that the consent decree was negotiated and entered without participation of the parties most affected by the designation process and the deadlines and requirements EPA must follow to make designations are beyond what is allowed under the FCAA. EPA should have taken Texas' recommendations that these three areas be designated unclassifiable. Because the Final Rule is based on a consent decree that is contrary to the FCAA, Texas has also filed challenges in the 5th Circuit and D.C. Circuits on the Final Rule.

---

[5] Letter from Governor Greg Abbott to Janet McCabe, Assistant Administrator, U.S. EPA, September 18, 2015, Docket No. EPA-HQ-OAR-2014-0464; Letter from Executive Director Richard Hyde to EPA Air Docket, March 31, 2016, Docket No. EPA-HQ-OAR-2014-0464.
[6] *Sierra Club and NRDC v. McCarthy*, No. 3:13-cv-3953-SI (N.D. Cal.)
[7] 81 *Fed. Reg.* at 89871, "The court order required the EPA Administrator to sign a notice designating areas in a second round that contained sources meeting certain criteria no later than July 2, 2016."
[8] Texas and TCEQ v. U.S. EPA and Catherine McCabe, No. 17-60088, (5th Cir.); 17-1053 (D.C. Cir.)
[9] *Sierra Club; NRDC; EPA v. State of North Dakota et al.*, No. 15-15894 (9th Cir.)
[10] 5 U.S.C. § 705
[11] *Sierra Club v. Jackson*, 833 F. Supp. 2d 11, 34 (D.D.C. 2012)

Re: Docket No. EPA-HQ-OAR-2014-0464

The Final Rule begins an 18-month clock, from the January 12, 2017 effective date, for Texas to submit to EPA source-specific attainment demonstration state implementation plans (SIPs) for the nonattainment areas in Freestone and Anderson Counties, Rusk and Panola Counties, and Titus County. The Texas attainment demonstration SIPs must meet several requirements including: emissions inventories, implementation of all reasonably available control measures (RACM), provide for reasonable further progress, modeling of attainment, enforceable emission limits and contingency measures.[12] TCEQ must develop these plans early enough to provide adequate time to accept and respond to public comments on the proposed SIPs before submitted for commission approval and submittal to EPA for review and approval. Had EPA instead designated these areas as unclassifiable, these FCAA planning requirements would not be triggered.

Unless stayed, EPA's actions will unjustifiably force Texas to immediately expend significant staff time and resources to meet the SIP submittal deadline; therefore, "justice so requires" EPA stay the effectiveness of the Final Rule (and thus the SIP clock) pending a decision in the federal circuit courts on the legality of the consent decree. Texas must quickly begin to expend precious agency resources on the SIPs, at the expense of other important SIP work. These resources will be wasted if the consent decree is overturned and EPA is directed to re-issue designations based on the recommendations from Texas.

Thank you for consideration of this request, and please contact me at (512) 239-1317 or John Minter, the attorney on this issue, at (512) 239-0663 if we can provide any further information.

Sincerely,

Richard A. Hyde. P.E., Executive Director
Texas Commission on Environmental Quality

cc: The Honorable Ken Paxton, Attorney General of Texas

---

[12] FCAA § 172(c), 42 U.S.C. § 7502(c)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

APR 7 2017

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

Mr. Richard A. Hyde, P.E.
Executive Director
Texas Commission on Environmental Quality
Post Office Box 13087
Austin, Texas 78711-3087

Dear Mr. Hyde:

Thank you for your interest in the Environmental Protection Agency's December 13, 2016, final rule titled, "Air Quality Designations for the 2010 Sulfur Dioxide (SO_2) Primary National Ambient Air Quality Standard–Supplement to Round 2 for Four Areas in Texas: Freestone and Anderson Counties, Milam County, Rusk and Panola Counties, and Titus County." In a letter dated March 15, 2017, to U.S. EPA Administrator Scott Pruitt, the Texas Commission on Environmental Quality requests that the EPA immediately stay the effective date of the final rule for the three areas in Texas designated as nonattainment for the 2010 SO_2 standard. Administrator Pruitt has asked me to respond on his behalf to acknowledge receipt of the request.

We will carefully review and consider the information set forth in the request for administrative stay. If you have any questions, please contact me or have your staff contact Anna Marie Wood of the Office of Air Quality Planning and Standards at *wood.anna@epa.gov* or (919) 541-3604.

Sincerely,

Stephen D. Page
Director
Office of Air Quality Planning
and Standards

Bryan W. Shaw, Ph.D., P.E., *Chairman*
Toby Baker, *Commissioner*
Jon Niermann, *Commissioner*
Richard A. Hyde, P.E., *Executive Director*

RECEIVED
2017 MAR 27 AM 11:20
OFFICE OF THE
EXECUTIVE SECRETARIAT

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

March 15, 2017

VIA Fax: (202)501-1450
Email: Pruitt.scott@epa.gov and Hardcopy

The Honorable Scott Pruitt
Administrator
U.S. Environmental Protection Agency
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

RE: Request for Administrative Stay, Air Quality Designations for the 2010 Sulfur Dioxide (SO_2) Primary National Ambient Air Quality Standard – Supplement to Round 2 for Four Areas in Texas: Freestone and Anderson Counties, Milam County, Rusk and Panola Counties, and Titus County, 81 *Fed. Reg.* 89,870 (Dec. 13, 2016); Docket No. EPA-HQ-OAR-2014-0464

Dear Administrator Pruitt:

The Texas Commission on Environmental Quality (TCEQ) respectfully requests the U.S. Environmental Protection Agency (EPA) immediately stay the effective date of EPA's final action entitled Air Quality Designations for the 2010 Sulfur Dioxide (SO_2) Primary National Ambient Air Quality Standard – Supplement to Round 2 for Four Areas in Texas: Freestone and Anderson Counties, Milam County, Rusk and Panola Counties, and Titus County, published in the Federal Register on Dec. 13, 2016 (Final Rule).[1]

The Governor of the State of Texas submitted recommended designations for the 2010 SO_2 NAAQS, as required under section 107 of the Federal Clean Air Act (FCAA).[2] In all correspondence with EPA over a three-year period,[3] Texas consistently recommended EPA designate as unclassifiable all areas in Texas for which monitored data was not available.[4] When EPA asked for additional information from States and solicited public comment to inform

[1] 81 *Fed. Reg.* 89,870 (Dec. 13, 2016)
[2] FCAA §107(d)(1)(A), 42 U.S.C. § 7407(d)(1)(A)
[3] Letter from Governor Rick Perry to Alfredo Armendariz, Regional Administrator, U.S. EPA Region VI, June 2, 2011; Letter from Governor Rick Perry to Alfredo Armendariz, Regional Administrator, U.S. EPA Region VI, April 20, 2012; Letter from Executive Director Zak Covar to Jennifer Noonan Edmonds, Acting Director, Office of Air Quality Planning and Standard, U.S. EPA, March 18, 2013, Docket No. EPA-HQ-OAR-2012-0233
[4] *See* FCAA 107(d)(1)(A); 42 USC 7407(d)(1)(A): "...the Governor of each State shall submit to the Administrator a list of all areas or portions thereof) in the State designating as . . . (iii) unclassifiable, any area that cannot be classified on the basis of available information as meeting or not meeting the [NAAQS] for the pollutant."

Re: Docket No. EPA-HQ-OAR-2014-0464

their designations of several areas that had yet to be designated (including the three areas subject to the Final Rule), Texas again recommended an unclassifiable designation for any areas where monitored data was not available.[5]

The Final Rule, departing from years of agency practice, rejects Texas's recommended designations for three areas: Freestone and Anderson Counties, Rusk and Panola Counties, and Titus County where monitored data was unavailable. Instead, EPA, relying on a court entered consent decree and not scientific data nor the state's recommendation,[6] designated these areas nonattainment for the SO_2 NAAQS based on modeling data.[7] Texas believes EPA's designations in the Final Rule were incorrect and contrary to the FCAA and has filed petitions for judicial review in the 5th Circuit and D.C. Circuit Courts of Appeal.[8] Additionally, Texas and several states challenged entry of the consent decree upon which the Final Rule is based and have appealed the consent decree to the 9th Circuit Court of Appeals.[9]

EPA should immediately grant a stay of the effective date of the Final Rule. Section 705 of the Federal Administrative Procedures Act (APA) grants EPA authority to stay an agency order or final determination pending judicial review of such order or determination if the EPA finds that "justice so requires."[10] While FCAA section 307(d) is also authority for EPA to stay the effectiveness of rules, this particular provision of the Act applies when it is reconsidering the rule to be stayed. Texas is not asking EPA to reconsider the Final Rule.

Texas is asking for a stay of the effectiveness of the Final Rule under section 705 of the APA pending judicial review of the 9th Circuit appeal and the petitions for review in the D.C. and 5th Circuits. A stay under this provision can be granted where, "at a minimum, a rational connection between [a] stay and the underlying litigation," must be articulated.[11]

Texas and several other states intervened in the litigation that resulted in the consent decree that EPA acknowledges compelled the action taken in the Final Rule. The Federal District Court for the Northern District of California entered the consent decree over the objections of the Intervenor States and is currently on appeal to the 9th Circuit Court of Appeals. Oral arguments are scheduled for March 16, 2017. Texas and the intervenor states maintain that the consent decree was negotiated and entered without participation of the parties most affected by the designation process and the deadlines and requirements EPA must follow to make designations are beyond what is allowed under the FCAA. EPA should have taken Texas' recommendations that these three areas be designated unclassifiable. Because the Final Rule is based on a consent decree that is contrary to the FCAA, Texas has also filed challenges in the 5th Circuit and D.C. Circuits on the Final Rule.

---

[5] Letter from Governor Greg Abbott to Janet McCabe, Assistant Administrator, U.S. EPA, September 18, 2015, Docket No. EPA-HQ-OAR-2014-0464; Letter from Executive Director Richard Hyde to EPA Air Docket, March 31, 2016, Docket No. EPA-HQ-OAR-2014-0464.
[6] *Sierra Club and NRDC v. McCarthy*, No. 3:13-cv-3953-SI (N.D. Cal.)
[7] 81 *Fed. Reg.* at 89871, "The court order required the EPA Administrator to sign a notice designating areas in a second round that contained sources meeting certain criteria no later than July 2, 2016."
[8] Texas and TCEQ v. U.S. EPA and Catherine McCabe, No. 17-60088, (5th Cir.); 17-1053 (D.C. Cir.)
[9] *Sierra Club; NRDC; EPA v. State of North Dakota et al.*, No. 15-15894 (9th Cir.)
[10] 5 U.S.C. § 705
[11] *Sierra Club v. Jackson*, 833 F. Supp. 2d 11, 34 (D.D.C. 2012)

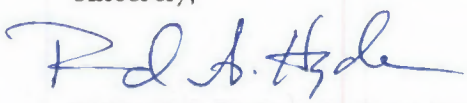
Re: Docket No. EPA-HQ-OAR-2014-0464

The Final Rule begins an 18-month clock, from the January 12, 2017 effective date, for Texas to submit to EPA source-specific attainment demonstration state implementation plans (SIPs) for the nonattainment areas in Freestone and Anderson Counties, Rusk and Panola Counties, and Titus County. The Texas attainment demonstration SIPs must meet several requirements including: emissions inventories, implementation of all reasonably available control measures (RACM), provide for reasonable further progress, modeling of attainment, enforceable emission limits and contingency measures.[12] TCEQ must develop these plans early enough to provide adequate time to accept and respond to public comments on the proposed SIPs before submitted for commission approval and submittal to EPA for review and approval. Had EPA instead designated these areas as unclassifiable, these FCAA planning requirements would not be triggered.

Unless stayed, EPA's actions will unjustifiably force Texas to immediately expend significant staff time and resources to meet the SIP submittal deadline; therefore, "justice so requires" EPA stay the effectiveness of the Final Rule (and thus the SIP clock) pending a decision in the federal circuit courts on the legality of the consent decree. Texas must quickly begin to expend precious agency resources on the SIPs, at the expense of other important SIP work. These resources will be wasted if the consent decree is overturned and EPA is directed to re-issue designations based on the recommendations from Texas.

Thank you for consideration of this request, and please contact me at (512) 239-1317 or John Minter, the attorney on this issue, at (512) 239-0663 if we can provide any further information.

Sincerely,



Richard A. Hyde. P.E., Executive Director
Texas Commission on Environmental Quality

cc: The Honorable Ken Paxton, Attorney General of Texas

---

[12] FCAA § 172(c), 42 U.S.C. § 7502(c)

Wed Mar 15 17:17:50 EDT 2017
Hope.Brian@epamail.epa.gov
FW: Petition for Reconsideration - EPA's SSM SIP Call (Docket No. EPA-HQ-OAR-2012-0322)
To: CMS.OEX@epamail.epa.gov

For the Daily Reading File

Full hard copy to Ryan Jackson

From: Janis Hudson [mailto:janis.hudson@tceq.texas.gov]
Sent: Wednesday, March 15, 2017 12:36 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>; jeffery.wood@usdoj.gov
Subject: Petition for Reconsideration - EPA's SSM SIP Call (Docket No. EPA-HQ-OAR-2012-0322)

By this email, the Texas Commission on Environmental Quality is submitting the attached Petition for Reconsideration for EPA's SIP Call.* It will also be submitted to you via U.S. Mail.

In addition, TCEQ is submitting the PFR to EPA's Air and Radiation Docket.

*In Re: State Implementation Plans; Response to Petition for Rulemaking; Restatement and Update of EPA's SSM Policy Applicable to SIPs; Findings of Substantial Inadequacy; and SIP Calls to Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown and Malfunction; Final Rule, June 12, 2105 (80 *Federal Register* 33839)

Janis Hudson

Attorney, Environmental Law Division

Texas Commission on Environmental Quality

512-239-0466

Bryan W. Shaw, Ph.D., P.E., *Chairman*
Toby Baker, *Commissioner*
Jon Niermann, *Commissioner*
Richard A. Hyde, P.E., *Executive Director*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

March 15, 2017

VIA ELECTRONIC TRANSMISSION and HARD COPY
pruitt.scott@epa.gov
Certified Mail No: 7012 3050 0001 7708 9051

The Honorable Scott Pruitt, Administrator
U.S. Environmental Protection Agency
William Jefferson Clinton Building
1200 Pennsylvania Avenue
MC-1101A
Washington, D.C. 20460

Re: Response to Petition for Rulemaking: Restatement and Update of EPA's SSM Policy Applicable to SIPs, 80 *Federal Register* 33840, June 12, 2015. EPA Docket Number EPA-HQ-OAR-2012-0322

Dear Administrator Pruitt:

The Texas Commission on Environmental Quality (TCEQ) appreciates the opportunity to submit the attached Petition for Reconsideration of the Final Rule and Request for Administrative Stay in the above referenced matter.

Please accept the attached document for filing and confirm receipt. If you have any questions, please contact me at (512) 239-5510 or Janis Hudson, Staff Attorney, at (512) 239-0466.

Sincerely,

Bryan W. Shaw

Bryan W. Shaw, Ph.D., P.E.
Chairman
Texas Commission on Environmental Quality

Enclosure

cc: Toby Baker, TCEQ Commissioner
Jon Niermann, TCEQ Commissioner
Richard A. Hyde, P.E., TCEQ Executive Director
Ramiro Garcia, Jr., TCEQ Deputy Director, Compliance & Enforcement
Steve Hagle, P.E., TCEQ Deputy Director, Office of Air
Caroline Sweeney, TCEQ Deputy Director, Legal Services
Janis Hudson, TCEQ Staff Attorney, Environmental Law Division
Priscilla Hubenak, Office of Attorney General, Environmental Protection Division
Kellie Billings-Ray, Office of Attorney General, Environmental Protection Division

BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

In Re: State Implementation Plans; Response to Petition for Rulemaking; Restatement and Update of EPA's SSM Policy Applicable to SIPs; Findings of Substantial Inadequacy; and SIP Calls to Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown and Malfunction; Final Rule	§ § § § § § § §	**Docket No. EPA-HQ-OAR-2012-0322**

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY'S PETITION FOR RECONSIDERATION AND REQUEST FOR ADMINISTRATIVE STAY

Pursuant to 5 U.S.C. § 553(e)[1] and 42 U.S.C. § 7607(d)(7)(B),[2] the Texas Commission on Environmental Quality (TCEQ) respectfully submits this Petition for Reconsideration, urging the Environmental Protection Agency (EPA) to reconsider its final rule of the Startup, Shutdown and Malfunction (SSM) State Implementation Plan (SIP) Call, captioned above and published at 80 *Federal Register* 33839 (June 12, 2015) (Final Rule). EPA is authorized, pursuant to 5 U.S.C. § 705, to "postpone the effective date of action taken by it, pending judicial review" when the agency finds that "justice so requires." Therefore, TCEQ also respectfully requests that EPA stay implementation of the Final Rule regarding the exclusion of affirmative defenses in the Texas SIP pending reconsideration.

BACKGROUND

The Clean Air Act (CAA)[3] creates a framework for cooperative state and federal programs to prevent and control air pollution,[4] giving states "primary responsibility" for prevention and control of air pollution,[5] while providing flexibility to allow for reasonable economic growth as air quality improves. Specifically, the CAA requires EPA to identify pollutants that endanger the public and to establish maximum permissible concentrations of these pollutants in ambient air.[6] These concentrations are known as the national ambient air quality standards (NAAQS).[7] States determine how to achieve

---

[1] Administrative Procedure Act.
[2] Clean Air Act § 307(d)(7)(B), 42 U.S.C. § 7607(d)(7)(B).
[3] 42 U.S.C. §§ 7401 - 7671q.
[4] CAA § 101(a)(3), 42 U.S.C. § 7401(a)(3).
[5] CAA § 107(a), 42 U.S.C. § 7407(a); *Train v. NRDC,* 421 U.S. 60, 79 (1975) (EPA "is relegated by the [CAA] to a secondary role.").
[6] CAA §§ 108-109, 42 U.S.C. §§ 7408-7409.
[7] *Id.*

and maintain compliance with the NAAQS.[8] The CAA requires each state to submit, for EPA approval, a State Implementation Plan (SIP) that provides for implementation, maintenance and enforcement of the NAAQS, and specifies the manner in which the state will attain and maintain compliance with those standards.[9] Although the CAA gives EPA the authority to approve SIPs, that authority is limited to whether a state's choice of emission limitations is in compliance with the CAA, and does not give EPA the authority to question the wisdom of a state's choices.[10] In Texas, the TCEQ is the state agency authorized to implement the requirements of the CAA and develop the Texas SIP.

Each SIP must include enforceable emission limitations and other control measures, means or techniques, as well as schedules and timetables for compliance.[11] States have the flexibility to design their enforcement programs to best use their resources while still protecting the NAAQS. One component of that can be an affirmative defense, which EPA agreed is "one way to allow a State to define what constitutes an enforceable emission limitation."[12]

SIPs must also include provisions regulating the construction and modification of stationary sources of air pollutants.[13] These provisions are known as new source review (NSR). NSR permitting for stationary sources which emit air contaminants is designed to authorize emissions from routine operations and also from maintenance, startup and shutdown activities for these sources that can be planned and scheduled.

Emissions that are not planned and scheduled are violations of emissions limits and may be caused by intentional or negligent actions of the owner or operator of the source, or may be beyond the control of the owner or operator. Startups and shutdowns that are not a part of normal or routine operations and are unpredictable as to timing, as well as unplanned and unavoidable breakdowns or excursions of processes or equipment, often referred to as upsets or malfunctions, are the types of violations for which an affirmative defense has been allowed under the CAA. Despite diligent efforts, SIP-approved emission limits established in rules and permits may be exceeded under circumstances beyond the control of the operator of the source - a fact acknowledged by EPA in its defense of the approval of the TCEQ's affirmative defense rule.[14]

Since EPA's 1972 approval of Texas' SIP, Texas and EPA have applied a distinct regulatory regime to these emissions—a regime founded on the acknowledgement that it is not appropriate to enforce emission limits every time excess emissions result from

---

[8] CAA §§ 101(a)(4) & 107(a), 42 U.S.C. §§ 7401(a)(4) & 7407(a).
[9] *Id.*, CAA § 110, 42 U.S.C. § 7410.
[10] *Train v. NRDC,* 421 U.S. 60, 79 (1975). *See also Union Electric Co. v. EPA,* 427 U.S. 246, 267 (1976) (Marshall, J.)("[T]he State has virtually absolute power in allocating emission limitations so long as the national standards are met . . . .").
[11] CAA § 110(a)(2)(A), 42 U.S.C. § 7410(a)(2)(A).
[12] Brief of Respondent EPA at 18, *Luminant Generation Co., LLC, et al. v. EPA*, No. 10-60934, July 12, 2011.
[13] *See* CAA § 110(a)(2)(C), 42 U.S.C. § 7410(a)(2)(C).
[14] Brief of Respondent EPA at 18 and 22, *Luminant Generation Co., LLC, et al. v. EPA*, No. 10-60934, July 12, 2011.

certain maintenance, startup, or shutdown activities.[15] This regulatory regime has evolved since 1972, with each iteration bringing a tightening of requirements. Over time, exemptions for excess emissions were narrowed and were exchanged for more restrictive affirmative defenses.[16] TCEQ adopted the affirmative defenses that are the subject of the SSM SIP Call at issue in 2005.[17]

TCEQ's affirmative defense rule is narrowly tailored and adheres to EPA's prior policy[18] such that it is entirely consistent with the CAA. It is the long-standing interpretation, upheld by the Fifth Circuit,[19] stated in these memos that TCEQ is asking EPA to reinstate as its interpretation for proper enforcement of the CAA. The affirmative defenses are limited by the numerous, stringent criteria an operator must prove before establishing the defense.[20] Key among these is the requirement that the defendant prove the emissions "did not cause or contribute to an exceedance of the [NAAQS]."[21] The TCEQ's SIP revision could not be approved if the revision "would interfere" with the NAAQS; this criterion ensures that TCEQ's rule does not interfere with the NAAQS.[22] In addition, an operator must prove, among other criteria, that (1) the emissions were properly reported; (2) the emissions could not have been prevented through planning and design; (3) the facility or its air pollution control equipment were operated consistent with good practices for minimizing emissions; (4) steps were taken to minimize the emissions; (5) emissions monitoring systems were kept in operation if possible; (6) the operator's actions during the event were documented by

---

[15] *See* 37 Fed. Reg. 10,841, 10,895-98 (May 31, 1972) (approving Texas' Rule 12.2, which allows for the exemption of certain maintenance, startup, and shutdown emissions); *see also, e.g.*, Memorandum from Kathleen M. Bennett, Assistant Adm'r for Air, Noise, & Radiation, to Reg'l Adm'rs, Regions I-X, "Policy on Excess Emissions During Startup, Shutdown, Maintenance, and Malfunctions" (Sept. 28, 1982) (the "Bennett Memo"), ("EPA agrees that the imposition of a penalty for sudden and unavoidable malfunctions caused by circumstances entirely beyond the control of the owner and/or operator is not appropriate.").

[16] *See, e.g.,* 29 Tex. Reg. 118 (Jan. 2, 2004) (adopting first affirmative defense for emission events); *see also* Memorandum from Steven A. Herman, Assistant Adm'r for Enforcement & Compliance Assurance, and Robert Perciasepe, Assistant Adm'r for Air & Radiation, to Reg'l Adm'rs, Regions I – X, "State Implementation Plans (SIPs): Policy Regarding Excess Emissions During Malfunctions, Startup, and Shutdown" (Sept. 19, 1999), ("EPA recognizes that imposition of a penalty for sudden and unavoidable malfunctions caused by circumstances entirely beyond the control of the owner or operator may not be appropriate * * * This policy clarifies that the states have the discretion to provide [an affirmative] defense to actions for penalties brought for excess emissions that arise during certain malfunction, startup, and shutdown episodes.")

[17] *See* 30 Tex. Reg. 8884 (Dec. 30, 2005) (codifying affirmative defense criteria at 30 Tex. Admin. Code § 101.222).

[18] Memorandum from Kathleen M. Bennett, Assistant Adm'r for Air, Noise, & Radiation, to Reg'l Adm'rs, Regions I-X, "Policy on Excess Emissions During Startup, Shutdown, Maintenance, and Malfunctions" (Sept. 28, 1982); Memorandum from Kathleen M. Bennett, to Reg'l Adm'rs, Regions I-X, "Policy on Excess Emissions During Startup, Shutdown, Maintenance, and Malfunctions" (Feb. 15, 1983); and Memorandum from Steven A. Herman, Assistant Adm'r for Enforcement & Compliance Assurance, and Robert Perciasepe, Assistant Adm'r for Air & Radiation, to Reg'l Adm'rs, Regions I – X, "State Implementation Plans (SIPs): Policy Regarding Excess Emissions During Malfunctions, Startup, and Shutdown" (Sept. 19, 1999),

[19] *Luminant Generation Co. LLC v. EPA,* 714 F.3d 841 (5th Cir. 2013).

[20] *See, e.g.*, 30 Tex. Admin. Code § 101.222(b)(1)-(11), (c)(1)-(9).

[21] *See id.* § 101.222(b)(11) and (c)(9).

[22] *See* CAA § 110(*l*), 42 U.S.C. § 7410(*l*). (providing the standard for approval of SIP revisions).

contemporaneous operating logs or other relevant evidence; *and* (7) the emissions did not cause or contribute to a condition of air pollution.[23] In short, if the emissions are not excessive,[24] did not cause air pollution, *and* the operator acted appropriately to prevent and respond to such emissions, penalties will not be assessed. However, corrective orders and injunctive relief may still be imposed.[25]

The fundamental purpose of the affirmative defense rule is to create an incentive for operators to take appropriate prevention and response measures aimed at minimizing emissions.[26] TCEQ's affirmative defense rule creates a strong incentive for sources to manage their operations, *i.e.,* to self-regulate, consistent with the prescriptive terms of the criteria, because it provides regulatory certainty for operations and, in turn, investments in equipment and emissions controls.

The TCEQ's affirmative defense rule was approved by EPA as a revision to the Texas SIP in 2010,[27] and this approval was defended by EPA when challenged. EPA specifically acknowledged that because "100% compliance may not be feasible," the liability scheme in the TCEQ's rule is a way to balance the tension between the difficulty in 100% compliance with uniform numeric limits and ensuring adequate compliance and the CAA requirement for continuous compliance.[28] This is accomplished by the enforcement flexibility afforded by the affirmative defense as to penalties as long as the stringent criteria are met.

EPA's SIP approval was upheld by the Fifth Circuit.[29] The Fifth Circuit *did not* defer to EPA on interpretation of the CAA. Instead, the Court relied on a plain reading of the statute.[30] Until EPA became confused by the *NRDC* case[31] regarding whether an affirmative defense was appropriate for inclusion in rules promulgated by EPA for hazardous air pollutants under a different and distinguishable program under the CAA. [32] EPA treated the TCEQ's rule as a model for states to emulate.[33]

---

[23] *See* 30 Tex. Admin. Code § 101.222(b)-(e) & (h).
[24] Importantly, the affirmative defenses are available only to emission events deemed by the Executive Director not to be "excessive." *See* 30 Tex. Admin. Code § 101.222(a), (b), (c) & (e). This is a significant restriction to the class of events for which the defenses may be asserted, and it enables the Executive Director to confine the affirmative defenses to those events for which relief from penalties may be appropriate.
[25] 30 Tex. Admin. Code § 101.222(b) - (e).
[26] *See, e.g.*, Bennett Memo, ("[B]y requiring the source to demonstrate the existence of an unavoidable malfunction . . . good maintenance procedures are indirectly encouraged . . . .").
[27] 75 Fed. Reg. 68,989 (Nov. 10, 2010).
[28] Brief of Respondent EPA at 18, *Luminant Generation Co., LLC, et al. v. EPA*, No. 10-60934, July 12, 2011.
[29] *Luminant Generation Co. LLC v. EPA,* 714 F.3d 841 (5th Cir. 2013).
[30] *Id.,* at 853 n.9 ("Additionally, the availability of the affirmative defense does not negate the district court's jurisdiction to assess civil penalties using the criteria outlined in [CAA 113(e)], or the state permitting authority's power to recover civil penalties, it simply provides a defense, under narrowly defined circumstances, if and when penalties are assessed.")
[31] *NRDC v. EPA,* 749 F.3d 1055, 1063 (D.C. Cir. 2014).
[32] CAA § 112, 42 U.S.C. § 7412.
[33] 78 Fed. Reg. 12459 at 12468 and 12470 (Feb. 22, 2013).

INTRODUCTION

A petition for rulemaking was filed by the Sierra Club with the EPA Administrator on June 30, 2011 which included interrelated requests concerning the treatment of excess emissions in state rules by sources during periods of startup or shutdown activities, or malfunctions (SSM). EPA's initial proposal responding to the petition[34] did not include a change in its long-standing interpretation of the CAA with regard to the availability of a narrowly-tailored affirmative defense for certain excess emissions[35] - those from unplanned SSM. EPA did not find any substantial inadequacy of the Texas SIP. In fact, as noted above, in its proposal, EPA referred to the Texas rule allowing for an affirmative defense for certain excess emissions as consistent with CAA requirements.[36] TCEQ submitted comments that generally supported EPA's original affirmative defense position.

Eighteen months after the close of the comment period, EPA issued a supplemental notice, proposing to additionally grant the particular issue in Sierra Club's original petition with respect to the issue of affirmative defenses in SIPs for monetary penalties for excess emissions in judicial proceedings.[37] TCEQ's timely submitted comments in response to the supplemental notice included discussions of: (1) the decades-long history of the SIP-approved affirmative defense and its predecessor forms as effective control measures in the history of the Texas SIP; (2) why EPA's proposal ignores the holding of the Fifth Circuit Court of Appeals; and (3) the SSM SIP Call illegally predetermined Texas SIP inadequacy.

After the Final Rule was published, the State of Texas and TCEQ challenged the rule by filing a Petition for Review.[38] EPA's Final Rule and statements in its brief filed October 28, 2016, contain statements that form the basis for EPA's position that were not made available by EPA for comment by interested parties, as required. When the Final Rule was promulgated and litigated, TCEQ was surprised to discover unforeseen changes that will significantly and disproportionately impact Texas. These changes form a basis for EPA to reconsider its Final Rule. In addition, EPA's recently adopted Regional Consistency Rule[39] supports reconsideration of the Final Rule.

Because EPA is not foreclosed from maintaining its long-standing prior interpretation of the CAA with regard to the use of affirmative defense as a control strategy in a SIP, TCEQ respectfully requests EPA to grant reconsideration based on the information provided below. Such reconsideration, in light of the Final Rule's significant flaws and the notice defects identified here, is warranted. Failure to convene a proceeding for reconsideration of the rule, with the same procedural rights as would have been

---

[34] 78 Fed. Reg. 12459 (Feb. 22, 2013).

[35] 80 Fed. Reg. 33839, at 33881 (June 12, 2015.) EPA's long-standing policy was based on the physical limitations of the most common types of emissions control technologies, where operation at full capacity is not possible during startup and shutdown. *See, e.g., Mont. Sulphur & Chem. Co. v. EPA*, 666 F.3d 1174, 1192-93 (9th Cir. 2010).

[36] 78 Fed. Reg. 12459, at 12479, n.25 (Feb. 22, 2013).

[37] 79 Fed. Reg. 55919 (Sept. 17, 2014).

[38] Petition for Review filed with the Fifth Circuit Court of Appeals on July 10, 2015, removed to the D.C. Circuit Court of Appeals on August 28, 2015, and now part of the case styled *Walter Coke, Inc. v. EPA* (D.C. Cir., No. 15-1166).

[39] 81 Fed. Reg. 51102 (Aug. 3, 2016).

afforded had the information been available at the time the rule was proposed, would violate the notice requirements of both the Administrative Procedure Act (APA)[40] and the CAA.[41]

STANDARD OF REVIEW

Adequate notice "afford[s] interested parties a reasonable opportunity to participate in the rulemaking process."[42] The notice requirement is "designed (1) to ensure that agency regulations are tested via exposure to diverse public comment, (2) to ensure fairness to affected parties, and (3) to give affected parties an opportunity to develop evidence in the record to support their objections to the rule and thereby enhance the quality of judicial review."[43]

Two statutes require EPA to provide Texas and other interested parties adequate notice of the Final Rule and its underlying support. Section 553(e) of the APA[44] requires that "each agency shall give an interested person the right to petition for the issuance, amendment, or repeal of a rule." Failure to observe the basic APA procedures, if reversible error under the AP A, is reversible error under the [CAA] as well." [45]The APA allows EPA to grant this Petition without meeting any particular standard.

In addition, the CAA provides general provisions relating to administrative proceedings and judicial review. The CAA requires EPA to take the additional, more detailed step of providing a statement of the Proposed Rule's basis and purpose that includes "a summary of (A) the factual data on which the proposed rule [was] based; (B) the methodology used in obtaining the data and in analyzing the data; and (C) the major legal interpretations and policy considerations underlying the proposed rule."[46]

Specifically, § 307(d)(7)(B) provides for both mandatory and discretionary reconsideration of a rule by the EPA Administrator. Mandatory reconsideration is proper when "it was impracticable to raise [an] objection within [the public comment period] or if the grounds for such objection arose after the period for public comment . . . and if such objection is of central relevance to the outcome of the rule."

Discretionary reconsideration is also available under § 307(d)(7)(B). In *PPG Industries, Inc. v. Costle*, the D.C. Circuit noted that petitioners could comment on a new rule promulgated by EPA after remand by the court, or, alternatively, could file a petition for reconsideration directly with EPA, even though the rule at issue had been promulgated two years earlier regardless that this Petition for Review had been filed

---

[40] 5 U.S.C. §§ 551-59.
[41] 42 U.S.C. §§ 7401-7700.
[42] *Am. Radio Relay League, Inc. v.* FCC, 524 F.3d 227, 236 (D.C. Cir. 2008) (internal quotation marks omitted).
[43] *Int'l Union, United Mine Workers of Am. v. Mine Safety & Health Admin.*, 407 F.3d 1250, 1259 (D.C. Cir. 2005) (citing *Small Refiner Lead Phase-Down Task Force v. EPA,* 705 F.3d 506, 547 (D.C. Cir. 1983)).
[44] 5 U.S.C. §§ 551-59.
[45] *Small Refiner Lead Phase-Down Task Force v. EPA,* 705 F.3d 506, 523 (D.C. Cir. 1983)).
[46] CAA § 307(d)(3); *see Small Refiner,* 705 F.2d at 518-19 (discussing the requirements of CAA § 7607(d)(3)).

and was pending in the D.C. Circuit Court of Appeals.[47] The court noted that either route would provide a reviewing court with a contemporaneous record of the agency's consideration of the issue, rather than with the "post hoc rationalizations of counsel."[48]

For example, by a January 26, 2009 directive of the incoming Obama Administration regarding the review of new and pending regulations, the EPA Administrator reviewed a number of actions taken by the previous administration in its final year. On March 10, 2009, EPA used its discretion to grant reconsideration of the March 27, 2008 final rule for the NAAQS for ozone[49] when it filed its unopposed motion requesting that the D.C. Circuit Court vacate the briefing schedule and hold the cases challenging the rule in abeyance. The basis for EPA's action was its desire to allow time for appropriate officials from the new administration to review the standards to determine whether they should be maintained, modified or otherwise reconsidered. This 2009 reconsideration was granted more than two years after the final ozone standard rule was proposed, and about one year after the final rule was published. In response to the reconsideration, EPA's proposal was published in January 2010.[50]

In addition, on January 14, 2009, EPA denied the State of New Jersey's petition for reconsideration regarding the New Source Review (NSR) Recordkeeping Rule[51] submitted February 15, 2008 (56 days after publication of the final rule). Two months later, on March 11, 2009, New Jersey submitted a second petition containing identical grounds as were included in the initial petition more than one year earlier. EPA granted it within three months on April 24, 2009 - a full 16 months after the final rule was published. Again, EPA filed its unopposed motion requesting that the D.C. Circuit Court hold the case in abeyance pending EPA proceedings.

A third example is the EPA's denial of a petition on January 14, 2009 submitted by EarthJustice regarding EPA's rule for implementation of NSR for the NAAQS for particulate matter ($PM_{2.5}$) published May 16, 2008.[52] EarthJustice filed its second petition with EPA 27 days later on February 10, 2009, which EPA granted on April 24, 2009, together with a stay pending reconsideration. The accompanying litigation was held in abeyance.

These examples of Petitions for Reconsideration granted by EPA, together with the authority granted by the APA and CAA, provide precedent for EPA granting a Petition for Reconsideration long after the effective date of the rulemaking. And, coupled with the demonstration below that that it was impossible for TCEQ to raise certain objections of central relevance to the outcome of the Final Rule during the comment period, mandate that EPA has a duty to grant TCEQ's petition for reconsideration.[53]

---

[47] 659 F.2d 1239 at 1250 (D.C. Cir. 1981) ("a petition may be filed directly with EPA to interpret or amend the standard, to withdraw the Guidelines, or to specify midnight-to-midnight reporting procedures.") (citing 42 U.S.C. s 7607(d)(7) (B); 5 U.S.C. s 553(e) (1976)).
[48] *Id.*, citing *Oljato Chapter of the Navajo Tribe et al v. Train*, 515. F.2d, 654, 665-68 (D.C. Cir. 1975).
[49] Docket No. EPA-HQ-OAR-2005-0172.
[50] 75 Fed. Reg. 2938 (Jan. 19, 2010).
[51] Docket No. EPA-HQ-OAR-2001-0004 (Dec. 21, 2007).
[52] Docket NO. EPA-HQ-OAR-2003-0062).
[53] *See North Carolina v. EPA*, 531 F.3d 896, 927 (D.C. Cir 2008).

GROUNDS FOR RECONSIDERATION

I. EPA's Mischaracterization of the Texas SIP Was Not Known Until After the Close of the Public Comment Period and, Therefore, It Was impossible for TCEQ to Object Before that Time

On October 28, 2016, after the close of the public comment period for the Final Rule, EPA filed its Final Answering Brief in *Walter Coke, Inc. v. EPA*, stating that "the affirmative defense is a relatively new and narrow addition to the Texas SIP" and that "[t]he Texas SIP existed for decades without this affirmative defense."[54] This basis for evaluating the Texas affirmative defense was newly asserted in the brief, and was not part of the proposal or final action preambles or responses to public comments.

This new position reflects a fundamental misunderstanding of the role the affirmative defense plays in Texas' overall emission control strategy. It expressly counters the facts presented in comments regarding the SIP-approved affirmative defense in the Texas SIP, including the regulatory regime for treatment of certain emissions preceding the affirmative defense.[55] Public comment highlighted the significance the affirmative defense has on the Texas control strategy as a whole.[56] The CAA requires that a SIP "include enforceable emissions limitations *and other control measures, means, or techniques* . . . as may be necessary or appropriate" to meet the NAAQS and a "program to provide for the enforcement of [these] measures."[57] It also provides states have the ability to select from various options the measures they deem adequate to meet the NAAQS.[58]

Further, in its proposal, EPA reiterated its interpretation that an affirmative defense can be consistent with the CAA, stating that in order for an affirmative defense provision to be consistent with the CAA, it: (i) has to be narrowly drawn to address only those excess emissions that are unavoidable; (ii) cannot interfere with the requirement that the emission limitations apply continuously (*i.e.*, cannot provide relief from injunctive relief); and (iii) cannot interfere with the overarching requirements of the CAA, such as attaining and maintaining the NAAQS, citing to its SIP approval of the TCEQ's affirmative defense rule that met this test.[59] Importantly, EPA repeated its position that its interpretation allowing this type of affirmative defense is reasonable because it does not interfere with the overarching goals of title I of the CAA, such as attainment and maintenance of the NAAQS, and balancing it with

---

[54] Brief of Respondent EPA at 110, *Walter Coke, Inc. v. EPA*, No. 15-1166 (D.C. Cir., Oct. 28, 2016).

[55] The Texas affirmative defense is for excess emissions from unplanned maintenance, startup, and shutdown (MSS) activities, and from non-excessive emissions events, which includes emissions due to upsets, which are the functional equivalent of malfunctions. 30 Tex. Admin. Code § 101.222(b) - (e).

[56] *See, e.g.,* the following in Docket No. EPA-HQ-OAR-2012-0322: TCEQ, *Comments by the Texas Commission on Environmental Quality Regarding State Implementation Plans*, at 25-33 (Nov. 5, 2014) docket item 0936; BCCA Appeal Group, *Comments on EPA's Proposed SIP Call and Related Actions* at 5-8, (Nov. 6, 2014), docket item 0958; Texas MSS Working Group, Comments at 5-8 (Nov. 6, 2014), docket item 0958.

[57] CAA § 110(a)(2), 42 U.S.C. § 7410(a)(2) (emphasis added),

[58] *See Train v. NRDC*, 421 U. S. 60, 79 (1975).

[59] 78 Fed. Reg. 12459, at 12470 (Feb. 22, 2013).

the reality that, despite best efforts of sources, technology is fallible.[60] Nothing in the Final Rule identified a technological basis to support EPA's change in policy.

Therefore, the TCEQ justifiably relied upon the fact that EPA appreciated the significant impact its SIP call would have on the control strategy for Texas. EPA's brief contradicts these facts and demonstrates EPA's lack of understanding of this control strategy. As such, the result was a fundamental inadequacy of the public comment process on the proposal and supplemental proposal.

The affirmative defense plays a critical role in, and is of central relevance to, the outcome of the Final Rule. As detailed in comments filed on the docket, the Texas affirmative defense is a key component of the state's clean air strategy and has existed, in some form, as far back as the original Texas SIP of 1972. As mentioned previously, EPA used Texas' affirmative defense rule as an example of how an affirmative defense can be properly crafted to be part of an approved SIP. Over the course of four decades, these provisions have become a key part of a comprehensive and effective strategy to control emissions. The Texas SIP originally established stringent permit and rule-based emission limits on the basis that unavoidable emissions from MSS and malfunctions could be addressed separately through reporting of emissions, and later by implementing a narrowly-tailored affirmative defense, with EPA approval of these various rules as SIP revisions.[61] Almost 45 years later, the TCEQ's Texas affirmative defense continues to be an integral part of the general-rules for the Texas air quality program.[62]

In light of EPA's misunderstanding of the central role the affirmative defense plays in the Texas SIP, TCEQ respectfully requests EPA reconsider ~~in~~ its interpretation of the permissibility of affirmative defenses with respect to unplanned MSS emissions as provided in the Texas SIP.

II. As to Texas, the Final Rule Conflicts with EPA's Recent Revisions to Its Regional Consistency Regulations

EPA's Final Rule action as to Texas' SIP conflicts with subsequent revisions to EPA's "regional consistency" regulations finalized after the close of the public comment for the Final Rule. On August 3, 2016, EPA finalized revisions to its regional consistency regulations[63] in response to a decision of the D. C. Circuit in *Nat'l Envtl. Dev. Ass'n's Clean Air Project v. EPA*.[64] As part of that rulemaking, EPA explains "under the revised regulations, it would be clear that any such adverse decision that is or has been issued would be applied to those areas or parties that are under the issuing court's jurisdiction[.]"[65] EPA further explains that the doctrine of intercircuit nonaquiescence, which EPA proposed be embedded in its regulations, is a "practice in which a decision by a federal circuit court is binding only in those areas (in this case, specific states and

---

[60] *Id.*
[61] *See Comments by the Texas Commission on Environmental Quality Regarding State Implementation Plans*, at 4-11 (Nov. 5, 2014) Docket No. EPA-HQ-OAR-2012-0322, docket item 0936.
[62] 30 Tex. Admin. Code §§ 101.211(a), 101.221(e) 101.222(b) - (e), and 101.223(c).
[63] 81 Fed. Reg. 51102 (Aug. 3, 2016).
[64] 752 F.3d 999 (D. C. Cir. 2014).
[65] 80 Fed. Reg. 50250, at 50254 (Aug. 19, 2015).

the associated EPA regions) subject to the direct jurisdiction of the ruling circuit court."[66]

Under these principles, now recognized by EPA after adoption of the amendments to its regional consistency rules, which was after the close of public comment on the Final Rule, EPA's SIP call as to Texas is improper. The U.S. Court of Appeals for the Fifth Circuit, with jurisdiction over Texas, held in a binding decision that the Texas affirmative defense provisions do not "negate the district court's jurisdiction to assess civil penalties using the criteria outlined in [CAA § 113(e)] or the state permitting authority's power to recover civil penalties."[67] The Fifth Circuit's holding is directly contrary to EPA's only rationale for its SIP Call for Texas.[68] Because EPA has since adopted its regional consistency regulations, it must follow binding decisions when acting within a court's jurisdiction, and therefore reconsideration of the Final Rule is appropriate and necessary.

III. EPA is not Foreclosed from Maintaining its Long-Standing, Pre-*NRDC* Interpretation of Affirmative Defense in a SIP

EPA is not foreclosed from preserving its prior, longstanding interpretation regarding the permissibility of an affirmative defense within a SIP. EPA summarized this interpretation of the CAA before the Fifth Circuit, stating that:

> [T]he State is granted authority to determine what constitutes a violation, and to distinguish both quantitatively and qualitatively between different types of violations. This is part of the essential flexibility recognized in a regulator's ability to define enforceable emissions limitations.[69]

In the Final Rule, EPA reversed its position following the 2014 decision of the D. C. Circuit Court in *NRDC v. EPA*[70] (*NRDC*), stating "that the reasoning of the court in [*NRDC*] indicates that the states, like the EPA, have no authority in SIP provisions to alter the jurisdiction of federal courts to assess penalties for violations of CAA requirements through affirmative defense provisions."[71] EPA's original, long-standing interpretation to allow the use of affirmative defenses is the best policy because it provides states with the authority they need to implement their enforcement programs as they see fit.

TCEQ urges EPA to reconsider its recently changed interpretation in light of the significant impact this interpretation would have on the Texas SIP. For the following four reasons, neither the CAA nor the *NRDC* decision foreclose EPA from preserving its prior interpretation regarding the permissibility of affirmative defenses in a SIP.

---

[66] 80 Fed. Reg. 50250, at 50252-50253 (Aug. 19, 2015).
[67] *Luminant Generation Co. LLC v. EPA,* 714 F.3d 841, 853 n.9 (5th Cir. 2013).
[68] 79 Fed. Reg. 55919, 55944-55945 (Sept. 17, 2014) and 80 Fed. Reg. 33839, 33851-33852 and 33968-33969 (June 12, 2015).
[69] Brief of Respondent EPA at 27, *Luminant Generation Co. LLC v. EPA,* 714 F.3d 841 (5th Cir. 2013).
[70] 749 F.3d 1055 (D.C. Cir. 2014).
[71] 79 Fed. Reg. 55920 at 55929.

A. EPA's pre-*NRDC* interpretation was judicially approved.

EPA's 2010 approval of the TCEQ's affirmative defense rule was upheld by the Fifth Circuit.[72] The court found that the TCEQ's SIP-approved affirmative defense rule is not inconsistent with EPA's policy guidance at that time. The TCEQ's affirmative defense is narrowly tailored to ensure that the source has made all reasonable efforts to comply with emission limitations and remain in compliance with the CAA. It serves as an incentive for avoidance of excess emissions, but also presents a high burden for reduction in or avoidance of penalties. As such, the TCEQ's affirmative defense rule is consistent with the penalty assessment criteria in CAA 113(e). *Id.* at 853. Accordingly, EPA is not constrained from returning to its long-standing prior interpretation.

B. The *NRDC* decision does not apply to control measures in SIPs.

The *NRDC* decision limits EPA's authority to include affirmative defenses only as to regulations adopted by EPA under CAA § 112.[73] In *NRDC*, the court was faced with determining whether EPA had the authority to determine the appropriateness of civil penalties through an affirmative defense in implementing CAA § 112.[74] The court held EPA lacks this authority, finding that EPA's general assignment of authority under CAA § 301(a)(1) was insufficient to overcome the specific grant of jurisdictions to the districts with respect to the appropriateness of civil penalties.[75] The court's opinion explicitly notes that it does not confront the question of whether an affirmative defense may be contained in a SIP.[76] Accordingly, *NRDC* does not apply to affirmative defenses under CAA § 110 and the court's holding has no direct preclusive effect on EPA's prior approval of them as a part of a SIP.

C. States have broad discretion to establish and enforce a program of emissions limitations and other control measures under § 110 of the CAA.

Although the *NRDC* holding explicitly withholds judgment on the approval of affirmative defenses as part of a SIP, EPA has inferred that the court's reasoning (*not* holding) in that case should extend to affirmative defenses under CAA § 110. TCEQ respectfully requests that EPA reconsider this erroneous inference.

While the *NRDC* court found that EPA had no statutory authority to determine the appropriateness of penalties, the same cannot be said for states. CAA § 110[77] grants states the authority to establish "enforceable emission limitations and other control measures, means, or techniques . . . as may be necessary or *appropriate*" and to "provide for the enforcement of [such] measures."[78]

Furthermore, while EPA's implementation of CAA § 112 was constrained by the explicit emissions standards contained within that section, states are given greater flexibility to implement emissions limitations in a SIP. As explained by the U. S. Supreme Court,

---

[72] *Luminant Generation Co. LLC v. EPA,* 714 F.3d 841, 851-855 (5th Cir. 2013).
[73] 42 U.S.C. § 7412.
[74] *NRDC v. EPA.* 749 F.3d 1055, 1063 (D.C. Cir. 2014).
[75] *See* CAA §§ 113(b) and 304(a).
[76] *NRDC v. EPA.* 749 F.3d 1055, 1064, n.2 (D.C. Cir. 2014).
[77] 42 U.S.C. § 7410.
[78] CAA § 110(a)(2)(A), (C) (emphasis added).

"so long as the ultimate effect of a State's choice of emission limitations is compliance with the national standards for ambient air, the State is at liberty to adopt whatever mix of emission limitations it deems best suited to its particular situation."[79]

D. Affirmative defenses do not alter the District Courts' jurisdiction.

Although EPA's Final Rule concedes that States have broad discretion in implementing emissions limitations and control measures,[80] it asserts that affirmative defenses exceed that discretion because they alter the jurisdiction of the district courts.[81] TCEQ requests EPA reconsider this position.

States' authority to create defenses to monetary penalties is consistent with the text of both CAA § 113(e)(1) and § 304(a). Section 304(a), which authorizes citizen suits, allows a court to "apply any appropriate civil penalties" in a citizen suit. Section 113(e)(1) provides how a court should "determin[e] the amount of any penalty to be assessed." Neither addresses how to determine whether monetary penalties are "appropriate," as distinct from the "amount" of penalties if a monetary penalty is appropriate, or, more specifically, whether a State can determine that monetary penalties are not appropriate for certain SIP violations.

The CAA grants the district court's jurisdiction over violations of an applicable standard.[82] In determining whether there has been a violation of a SIP, the district court must necessarily look to how that specific state has chosen to shape its emissions control program within the discretion granted by the CAA under § 110. The inclusion of an affirmative defense provision represents one mechanism by which states have chosen to implement their emissions control programs. When a civil action claims an alleged SIP violation, the SIP establishes the standard by which the alleged violation is judged. The court then applies the facts of the case to that standard and, where a violation is found, considers whether to award a penalty or other authorized relief as prescribed in the statute and the SIP.[83]

One Texas federal court has applied the TCEQ's affirmative defense rule as just described. In *Sierra Club v. Energy Future Holdings Corp.*, a citizen suit filed under the CAA[84] in the Western District of Texas, the Sierra Club alleged violations of certain emission limits in the Texas SIP and requested civil penalties. Defendants asserted the Texas affirmative defenses. The court did not dismiss for lack of jurisdiction, instead holding a three-day trial and entering judgment on the merits after consideration of all of the facts presented.[85] The district court's treatment of the affirmative defenses was considered with the Fifth Circuit's determination in *Luminant*[86] in the challenge to EPA's approval of the affirmative defenses in the Texas SIP, and the court found that the Texas defenses do not "negate the district court's jurisdiction to assess civil

---

[79] *Train v. NRDC*, 421 U. S. 60, 79 (1975).
[80] 80 Fed. Reg. 33840 at 33848 (June 12, 2015).
[81] *Id.* at 33845.
[82] CAA §§ 113(b) and 304(a); 42 U.SC. §§ 7413(b) and 7604(a).
[83] *See* CAA §§ 113(e) and 304(a); 42 U.SC. §§ 7413(e) and 7604(a).
[84] CAA § 304; 42 U.S.C. § 7604.
[85] See *Memorandum and Order, Sierra Club v. Entergy Future Holdings Corp.*, No. 12-108, 2014 WL 2153913 (W.D. Tex., Mar. 28, 2014).
[86] *Luminant Generation Co. LLC v. EPA*, 714 F.3d 841 (5th Cir. 2013).

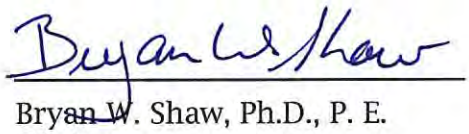
penalties using the criteria outlined in [CAA § 113(e)], or the state permitting authority's power to recover civil penalties, [but] simply provides a defense, under narrowly defined circumstances, if and when penalties are assessed."[87] This determination by the Fifth Circuit is not only binding, as recognized by EPA in its recent regional consistency rulemaking, but it is also consistent with the State's authority under CAA § 110.

RELIEF REQUESTED

For the forgoing reasons, TCEQ respectfully requests the Administrator promptly grant this Petition, initiate a proceeding for reconsideration of the issues raised in this Petition under the APA or the CAA, and stay implementation of the Final Rule regarding the exclusion of affirmative defenses in the Texas SIP, pending reconsideration.

March 15, 2017

Respectfully submitted,



Bryan W. Shaw, Ph.D., P. E.
Chairman
Texas Commission on Environmental Quality

[87] *Id.*, at 853, n. 9.

CERTIFICATE OF SERVICE

I certify that a copy of the Texas Commission on Environmental Quality's Petition for Reconsideration and Request for Administrative Stay was served on the following persons via hand delivery, facsimile, electronic mail, first class mail, or certified mail on March 15, 2017.

Janis Boyd Hudson
Attorney, Environmental Law Division
Texas Commission on Environmental Quality
Texas Bar # 10157400

Administrator Scott Pruitt
United States Environmental Protection Agency
William Jefferson Clinton Building
1200 Pennsylvania Avenue NW
MC-1101A
Washington, DC 20460
pruitt.scott@epa.gov

Jeffery H. Wood
United States Department of Justice
Environmental Defense Section
P.O. Box 7611
Washington, D.C. 20044
Tel: (202) 514-0997
Fax: (202) 514-8865
jeffery.wood@usdoj.gov

RECEIVED
2017 MAR 16 AM 6:37
OFFICE OF THE
EXECUTIVE SECRETARIAT

March 6, 2017

Administrator Scott Pruitt
Environmental Protection Agency
Office of the Administrator - 1101A
1200 Pennsylvania Ave NW
Washington, DC 20460

Dear Mr Pruitt,

As members of the Catholic community in the United States, we are praying that President Trump's presidency may be blessed with wisdom and compassion. **We urge him to demonstrate bold leadership in addressing the climate crisis by honoring the Paris Agreement, contributing to the Green Climate Fund, and implementing the Clean Power Plan.**

Because climate change is already harming millions of people across the U.S. and around the globe, Pope Francis has called national leaders to work together to address this crisis. Similarly, the United States Conference of Catholic Bishops (USCCB) strongly supports a national carbon pollution standard as essential to effective implementation of the Paris Agreement.

In order to limit the impacts of climate change on creation and on the human family, we urge President Trump to:

1. Maintain the United States' moral leadership on climate change by honoring the Paris Agreement (COP21) and taking swift action to reduce greenhouse gas emissions between 26 and 28 percent compared with 2005 levels by 2025;
2. Support sustainable development and address the underlying causes of migration by honoring the United States' initial pledge of $3 billion and further supporting the Green Climate Fund to help poor countries adapt to the effects of climate change;
3. Support job creation and economic opportunity by encouraging states to craft plans to reach and exceed their Clean Power Plan carbon reduction goals by transitioning to renewable energy sources like wind and solar power and enacting energy efficiency and conservation standards.

An overwhelming majority of Catholics in the United States (73 percent - that's over 50 million citizens) believe that government needs to do more to address the issue of climate change - a sentiment repeatedly expressed by Pope Francis and our Bishops.

As the leader of the most powerful country in the world, President Trump has a critical role to play in solving this crisis. We urge he and you to take swift and meaningful action before it is too late.

Institutional Endorsers

Benedictine Monks
Weston Priory
Weston, Vermont

CATHOLICS CONFRONT GLOBAL POVERTY

FRANCISCAN ACTION NETWORK

Columban Center for Advocacy and Outreach

The Global Catholic Climate Movement

Catholic Climate Covenant
Care for Creation. Care for the Poor.

Grey Nuns of the Sacred Heart
CREATING A COMPASSIONATE WORLD

CMSM

IGNATIAN SOLIDARITY NETWORK

JESUITS
Jesuit Conference of Canada and the United States

LCWR

Leadership Conference of Women Religious

Sisters of Mercy

Hermanas de la Misericordia

MARYKNOLL SISTERS • MARYKNOLL FATHERS & BROTHERS • MARYKNOLL LAY MISSIONERS

XAVIER UNIVERSITY

SIENAcollege

The education of a lifetime

Signers

M. A.
Theresa A.
Mary Abadia
Rosemarie Abate
Tony Abbate
Maureen Abbott
Nikki Abbott
Julia Abdala
Muhammad Abdullah
Rebecca Abell
Elaine Abels
Sharon Abercrombie
Kevin Abernathy
Sr. Bernandette Abeyta
Maria Abilock
Mary Abinante
Marian Abing
Marie Abjune
Ed Ablard
Michael Abler
Thomas Abraham
Rosemary Abramovich
Sr. Rosemary Abramovich
Lori Abrams
Rolando Acevedo
Claire Achard
Tracy Achinger
Joanne Ackerman
Kelan Ackerman
Laura Ackerman
Shelly Ackerman
Nancy Acopine
Pat Acosta
Diane Adam
Pauline Adam
Janet Adamczyk
Michael Adami
Beth Adams
Catherine Adams
Janet Adams
Kristina Adams
maria adams
Marjorie Adams
Sr Kathleen Adamsku
Kelly Adamson
David Adegooge
Delores Adelman
Carl Adkins
Janet Adkins
Alise Richel Adler
Maria Adorati
Sisters Adorers
Marian Adrian
Susan Adrians
Sr. Susan Ann Adrians
Ann Aeschbacher
Ana Agan
Jeanne Agans
Jaci Agarwala
Grace Agate, RSM
Jan Agee
Ruth Agee
Maureen Aggeler
Michael Agliardo
Sr. Mary Agnes
Sr. Shirley Agnew RSM
Kelly Agnew-Barajas
Francis Agnoli
Marianne Agnoli
Jan Agosti
Tam Agosti-Gisler
Joan Agro
Angelina Aguilar
Dalia Aguilar
Estetany Aguilar
Julio Aguilar
Rafael Aguilar
Miguel Aguilera
Onishea Aguilera
Jessica Aguirre
Marisol Aguirre
Marlon Aguirre
Saul Aguirre
Floridia Ahado
John Ahearn
Deirdre Aherne

John Aicher
Rosaly Aiello
Fidelia Akabogu
Kari Akers
Ann Akey
Brenda Akins
Mary Aktay
Fatima Al-shamari
Pauline Alama
Christian Alarid
Mary Alban
Josephine Albanese
Nancy Alberici
Kathleen Alberque
Gail Albers
Anthony Albert
Margaret Albo
Dr. Mary Anne Albough
Radley Alcantara
christine alcaraz
Lilibeth Alcazar
Diana Alcazar-O'Dowd
Deb Alee
Marc Aleep
Alma Alegria
lilia alegria
Nery Aleman
Marie Alessi
Ellen Alex
Allan Alexander
Andrea Alexander
Eugene Alexander
Jim Alexander
LaVonne Alexander
Lynn Alexander
Marcia Alexander
Margaret Alexander
Morgan Alexander
Ryan Alexander
Fred Alexander, OCD
Andy Alexander, S.J.
Joseph Alfano
Joseph H Alfano
Louise Alff
Antoinett Alfieri
Antoinett Alfieri
Sister Janice Alfoldy
Maria C. Alfonso
gail alford
Laura Algiere
Ibrahim Ali
Deborah Alicen
Jerome Alicki
Roger Alincastre
Barbara Allaire
Barbara Allan
Alena Allen
Andrew Allen
Barbara Allen
Evelyn Allen
Dr. Jasmine Allen
Jim Allen
judy allen
Kimberly Allen
Noreen Allen
Richard Allen
Sara Allen
sundra allen
Terry Allen
Toni Allen
Virginia Allen
Annette Alleva
Paula Allington
Rosemarie Alllen
Marthanne Allman
Auroner Allmelo
Kathleen Almeter
Martha Alonzo-Johnsen
Jim Alrcr
May Alsheikh
Edward Alten
Judith Alten
Sharon Altendorf
Pedro Alvara Sr., OFS
Magdalena Alvarado
Vanessa Alvarado
Shirley Alvarez
C. Antonio Alvarez-Moreno
Yolanda Alverez
Dana Alverson
Nancy Alves
Patricia Always

Mrs. Patricia Always
Luz Alyanora
Guillermo Alzuru
Dora Amador
Gloriamarie Amalfitano
Charlotte Amatangelo
Frances Amaudo
Constanza Amescua
Dale Amfahr
Mrs. Amfahr
Laura Amick
Sr. Rosina Amicon
gert ammerman
j Ammon
Linda Ammons
Jean Amore
Fran Amos
Lisa Amos
Bonnie Amucons
Collin Amundson
Emmanuel Andaya
Maria Andaya
Anita Andazola
Jon Anderholm
Jane Andersen
Mark Andersen
Arlene Anderson
Brent Anderson
Catherine Anderson
Ms Chris Anderson
Christin Anderson
Christopher Anderson
Claire Anderson
Daniel Anderson
Ellen Anderson
Erik Anderson
Ethan Anderson
Galvin Anderson
Gina Anderson
Glen Anderson
Jeff Anderson
joan anderson
JOHN ANDERSON
Kathleen Anderson
Laura Anderson
Marcy Anderson
marie anderson
Mary Eileen Anderson
Michelle Anderson
Nancy Anderson
Rebecca Anderson
Robert Anderson
Rose Anderson
SARA ANDERSON
Sheryl Anderson
Stacie Anderson
Stephen Anderson
Veronica Anderson
William Anderson
Teodoro Anderson Diaz
Eleanor Anderson-Miles
Maribel Andonian
Josh Andrada
Stacy Andrade
Tina Andrade
Martha Andrade-Dousdebes
DANIEL ANDRAE
Sr. Louise Marie Andree
Betty Andrews
Dan Andrews
Ginger Andrews
Margaret Andrews
Rosalind Andrews
David Andrus
margaret anella
Sr. Anne Mary Anesi
Connie Anestis
Ana Angel
Dana Angeles
Monserratee Angeles
Mary Angerman
Suzanne Anglim
Lupe Anguiano
Joanne Angvick
Sherry Annee

Tony Annett
Rebecca ANNIS
Paul Anreuia
June Anselme
Catherine Ansiaux
Emily Anstoetter
Kathleen Anthony
mary anthony
KrystÌ©le Antoine
Steven Antoine
Kathleen Antol
Rosemary Anton
Peggy Antos
Evelia Apantenco
Michael Aparo
jaynie apgar
Katalin ApÌÁthy
Bryan Apper
Judith Applebaum
Kirstie Applen
Mrs. Kathy Aquilina
Marylucia Arace
Lindsay Aramayo
Sr. Irma Araneta
Louis Araneta
Monica Araneta
Rosita Aranita
Anelie Arao
Francesca Arbuckle
Jake Arcanin
Elsa Arce
Louis Arceneaux
Amber Archangel
Gerry Archibald
Roberta Archibald
Isabel Archuleta
Isabel Arculeta
S Arden
Wesley Ardoin
Bob Arduini
Muhaimina Ardul-Hakim
Raymond Areaux
Martha Arenas
Teresa Arend
Andrea Arendt
Marty Argenti
Dr. Michelle Argersinger
Celia Argueta
Elvira Arias
Maribel Arias
Yolanda Ariza
Joseph Arlinghaus
Shirley Armand
Kristin Armendariz
Angelica Armstrong
Sr. Angelica Armstrong
Anne-Marie Armstrong
Beth Armstrong
Dominic Armstrong
Lucy Armstrong
Patricia Armstrong
Terry Armstrong
Virginia Armstrong
Denise Arn
Diane Arnal
Vicky Arndorfer
Alan Arnett
Catherine Arnold
CHRISTOPHER ARNOLD
Corinne Arnold
Lena Arnold
Mary Arnold
Mike Arnold
Sr. Margaret Ann Arnold
Jeanette Arnquist
Harold Arns
Dorothy Arnwine
Maria Arostegui
Luis Arraiza
Karen Arrigo
Robert and Sally Arroyo
Therese Arru
debra arsenault
Wanda Arsulich
Catherine Artale
Paz Artaza-Regan
Cheryl Arthur
Molly arthur
Edna Arthurs
Oleta Artman
Michael Arveson
Mary Jo Asadorian

Jennifer Asbury
Jen Asche
Evan Ash
John Ashley
Mary Ashton-Toth
Daniel E. Ashyk
Loretta Ashyk
Bruce Asmus
Mary Asmus
Fahimeh Assadamraji
Diane Assalone
Homa Assar
Eduardo Assef
Erika Asteinza
Maria Asteinza
Carmen Atchley
John Atherton
Amy Atkins
Anne Atkins
Julie Atkins
Kate Atkins
Karen Attanasio
miriam atwood
Barbara Aubrey
Marilyn Audet
Mary Jean Audette
Nancy Audette
Laura Audibert
Martie Audisde
Christine Auerbach
Joanne Auerbach
Barbara Augenstein
Jean Augustine
Bernice Augustyniak
Ashley Aupperle
Helen Auriemma
Mrs. Marie S. Ausberry
Alicia Ausere
Iris Austin
jana austin
Sr. Rosemary Austina
Scott Auten
Irmgard Autrey
Mark Avery
Kathy Avey
Alma Avila
Misael Avila
Mary Aviles
Kathleen Avina
Ms. Lynne Avril
Danna Awad
Beth Awalt
Martha Aycila
Carmela Ayers
Susan Ayoub
Walter Ayres
Mary Ann Azar
Gerardo Azarcon
Emily Azari
A B
Ewa B
kris b
Shary B
Charles B.
Joan B.
Norita B.
Lauren Baatrup
Mary Sue Babb
Andrelene Babbitt
Mary Babbitt
Mary Babcock
Sr. Kathleen Babin
Patricia Baca
Adele Bach
Cara Bach
Ms. Diane Bach
Patricia Bachman
Debra Bachorski
David Backes
William Backes
Robert Backis
Nancy Backus
Paula Bacon OFS
Christine Baczkowski
Laryssa Baczynskyj
Christine Badders
Sister Mary Ann Bader
Sr. Cecile Baer
Teresa Baggot
Rosette Bagley
alan bagshaw
Cindy Bagwell

Mary Ann Baichan
Anna Baidoun
Lyle Baier
Patricia Baier
Gretchen Bailey
Mary Bailey
Penny Bailey
Elaine Bair
Mary Baird
Cynthia Baker
Donna Baker
Erin Baker
Sister Frances Baker
Jane Baker
Ralph Baker
Richard Baker
Rita Baker
Robert Baker
Sara Baker
Stacey Baker
Zoe Bakoko
Eliode BAKOLE
Steven Bal
Jennifer Balanoff
Jacquelyn Balasia
Jonathan Balcewicz
Andrea Balconis
Stew Balder
Mary Balding
Susan Baldus
Barry Balentine
THOMAS BALK
Virginia Balk
Kim Balkovec
Sandra Balla
Janet Ballard
Jean Ballard
Linda Ballard, OSC
Bernadette Ballasty
Kay Ballenger
Lisa Ballenger
Frances Ballin
Susan Ballinger
Debra Ballou
Sr. Rosemary Balog
Jill Balogh
Virginia Balogh
Art Baltes
Linda Baltzer
Moses Bamad
Helen Bamber
Sister Barbara Bamberger
Thomas Bambrick, S.J.
Theresa Bancroft
Amanda Bandini
Claire Bangasser
Jean Bange
John Bangert
Sister Therese Bangert
Alessio Bangiardo
Laurie Bankston
Martha Banna
Jane T Bannon
Wolfgang Banzhaf
Pura Barakos
Dominika Baran
Salome Baran-Prince
Raymond Baranek
Erin Baranovich
Cecilia Baranowski
Jeanne Barasha
Barbara Ann Barbato
Kathi Barbee
Carol Barbeito
Elizabeth Barber
Jeffrey Barber
Melissa Barber
Terry Barber

Bill Barbieri
Christine Barboriak
Kimberly Barbosa
Stephanie Barbosa
Steven Barbosa
Melissa Barbour
Mary Barchman
Daniel Barckley
Michael Barclay
Jeannette Barczak
Ellen Bardo
Diane Bardol
Harry Bare
Helen Bare
Colleen Barenbrugge
Sr. Madeline Bariola
Sonja Baris
Kathryn Barkdull
Bridget Barker
Ms. Donna Barker
Jennifer Barker
Kristen barker
Laura Barker
Joseph Barker II
Fred Barla
Catherine Barley
Max Barlow
Sr. Janet Marie Barnael
Joan Fell Barnell
Jane Barnes
Jean Barnes
Karen Barnes
Noel Barnes
Nicole Barnett
Joyce Barney
Patricia Barney Padilla
Andrew Baron
Ken Baron
James Barone
Kathleen Barone
Victoria Barrantes
Phillip Barreda
Patrick Barredo
Angel Barrera
Brenda Barrera
Melissa Barrera
Donna Barrett
fiona barrett
John Barrett
lynne barrett
Sr. Rosemarie Barrett
Sarah Barrett
Nancy Barrett-Dennehy
INES BARRIONUEVO
Darryl Barrios
Maria Barrios
Katrina Barron
Mary Barron
Sr. Lois Barror
Simoa Barros
Denise Barry
Diane Barry
Emily Barry
James Barry
Kathryn Barry
Kevin Barry
Maria Barry
Regine Barry
Sr. Susan Barry
mary Barsotti
Nancy Bartasavich
Eileen Bartash
Kathleen Bartholomay
Jeanne Bartholomeaux
Jeanne Bartholomeaux, SC
Randy Barthweeks
Raymond Bartlett
Taylor Bartlette
karen bartley
Marilyn Bartnicki
Carol Bartol
M. Charlotte Barton
Mackenzie Barton
Mary Bartosh
amy bartucci
Jean Bartunek
Amy Bartus
maurine BARZANTNI
Mercedes Basadre
Fransisco Basilio
Karen Basilio
Jane Basler

Mary louise Basler
Viola Basque
Robin Bass
Fliz Bassen
Sr. Marjorie Bassett
Jill Basta
Patricia Basta
Lourdes Basurto
C. Joseph Batcheldor
Candace Bates
Gina Bates
Joyce Bates
Laura Bates
Linda Bates
Marilyn Batey
Nancy Bathe
Loretta Bator
Ruth Battaglia
Virginia Battaglia
Caroline Battersby
Barbara Battista SP
Linda Batton
Oscar Baudey
Mary Baudouin
Andrew Bauer
Beth Bauer
Betty Bauer
Sr. Delores Bauer
Frederick Bauer
Jacob Bauer
Jeremy C Bauer
John Bauer
Maxine Bauer
Randy Bauer
Christa Bauke
Miriam Baum
Sid Baum
Brigid Baumann
Bruce Baumann
Marilyn Baumer
Marilyn Baumer
Michael Baumer
Amanda Baumgartner
Marty Baxter
Sandra Bay
Carol Bayens
Mary Ann Bayer
Mary Rose Bayer
Rosario Bayon
Jeffrey Bayonne
Megan Bayrd
Luz Bazalar
Mary Ann Bazata
Robert Bazinet
Jose Bcinal
Renee Bcotcn
adele beacham
Paula Beachnau
Timothy Beacom
Jose Beaew
Joyce Beaini
Catherine Beal
Chris Beal
Barbara A Beall
John Beamer
Sarah Beams
Gloria Bearce
Phil Bearce
Theresa Beard
Paul Beares
susan beary
Sarah Beasley
Jane H Beattie
Nancy Beaty
Barbara Beauchamp
Jean Beauchamp
Nora Beauchamp
Martha Beaudoin
Mary Beaudoin
Philip Beaudoin
Patrick Beaudry
Peggy Beaudry
Sr. Patricia Beaumont
Anne Beavan
Laura Becerril
Francis Bechelli
Hilary Bechelli
Michael Bechelli
Susan Bechelli
Robert Becherer
Andrew Bechman
Abby Beck

clare beck
Sr. Dorothy Beck
Mary Beck
Maureen Beck
James Beck Sr.
Josephine Beck-Jennings
amelia becke
Mary C Beckemeyer
Andrew Becker
Bridget Becker
Daniel Becker
Jane Becker
Margaret Becker
Maureen BECKER
Michael Becker
Nancy Becker
Sr. Rosemary Becker
Sudan Becker
Virginia Becker
Mrs. Becker
Kathleen Beckett
Cody Beckley
Lenore Beckley
Jane Beckman
Gabriela Bedell
Gail Bederman
Diana Bednara
Kathy Bednarek
Mary Bednarek
Julie Bedson
Justeen Beeles
Therese Beers
Sr. Carol Beesing
Sr. Barbara Beesley
Karen Beger
Katie Behme
John Behnen
Charles Behnken
Faith Behr
Bonnie Behre
Joanna Behrens
Jo Behrman
Michael Beiermeister
Patricia Beirne
Judith Beiswanger
Timothy Beitel
Odwdy Bejar Solis
Sharon Bejar Solis
Mary Beth Bejma
Jane Belanger
Paula Belanger
Valeria Belanger
Monica Belber
Anne Belcher
Agnieszka Beletsky
JULIANE Belisle
Amee Belk
Barbara Bell
Sr. Bernadette Bell
Gail Bell
Jim Bell
John Bell
Paul Bell
Shirley Bell
Victoria Bell
Judith A. Bell< FSM
Peter Bella
Andrew Bellamy
Brenda Bellamy
Rosemary Bellantoni
Patricia Bellas
Sr. Linda Bellemore
Joe Bellini
Christopher Bellistri
Laura Bellotti
Patricia Belmont
Patricia Belongie
Angelica Beltran
Monica Beltran
John Bemmingh

Editha Ben
Alejandra Benavides
Mary Bender
Sr. Louise Benecke
Theresa Benedek
Joan Benevento
Ethel Beneville
Robert Benfer
Sandy Bengardino
Janice Benjamin
Roger Bennatti
Mary Bennett
Mary Ellen Bennett
Mary Lou Bennett
Maureen Bennett
Monica Bennett
Rhea bennett
Dianna Benney
Kristen Benney
Ms. Nancy Benninghovse
Lisa Bennis
Sue Benoy
mary benshoof
John Benson
Gregory Bentley
Michael Bentley
Glenna Benton
Nancy Benton
Sharan Benton
Mary Ann Bentz
Anne Benzing
John Benzing
Joyce Benzing
Nancy Benzschawel
Patricia Berberich
Ann Berendes
Cheryl Berg
Mary Berg
Tom Berg
Joelle Bergau
Pat Bergen
Teresa Bergen
Pamela Berger
Teresa Berger
Madeline Berghoff
Mary Bergin
WILLIAM BERGIN
Roger Bergman
Daryl Bergmann
Loretta Bergschneider
Elaine Bergstrom
Henley Bergstrom
Mr. Pamela J Berk
Henk Berk, Henk
Elizabeth Berliner
alan berman
Barbara Berman
Carie Bermingtian
Marian Bermudez
Janet Berna
Christina Bernard
Tess Bernard
Paola Bernardini
Sr. Francis Bernardo
phyllis Bernardo
Patmarie BernardSC
Rosanne Bernardy
Rose Bernhardt
Daniela Berni
Germana Berni
pat berning
Bonnie Bernstein
Patricia Bero
Betty berresheim
Ida berresheim
Anne Berry
Karen Berry
Mary Therese Berry
Sara Berry
Nancy Bertaux
Carol Berte
Cecile Berthiaume
Lauren Bertke
Isabella Bertolini
Heather Bertoni
Christine Besemer
Joel Besemer
Roby Besly
Linda Bessom
Judith Best
Brian Betcan
Luis Beteta

Gene Betit
Ann Betkowski
Sarah Bette
Rick Bettis
Teresa Bettis
Steve Bettlach
Donald Betts
Joe Betz
James Betzen
Christopher Beucherie
Linda Bevilacqua
Bethanie Bexar
Robert Bexar
Gerald Beyer
Boyd Bezlaj
Sister Mary Bezold
Jeff Bharkhda
Blaze Bhence
Brigitte BÌ_rcher
Rita Bia
Vincent Biagi
Marie Bianca
Marie B. Bianca
Jean Biancalana
Nancy Biancalana-Kerstein
Mary Ann Bibat
Jennifer Bibbo
Kathleen Bibona
Sr. Joanne Bich
Eileen M. Bichl
Katherine Bicicchi
Elizabeth Bickar
Brenda Bickham
Justin Bieker
Sr. Barbara A. Bielenberg
Janet Bielmann
KarelAnn Bielstein
Betty Mae Bienlein
Mary Bier
Virginia Bieren
Virginia Bieren
Edward Biersmith
Arlene Bieszczat
Steve Bieszczat
Father Biewend
Kathy Bigg
Deirdre Bigus
Erin Bill
Theresa Billeaud
Christina Marie Biller
CAROLYN BILLEY
David Bilodes
Landon Bilyen
Cynthia Binanay
Rebecca Bindbeutel
Carol Binder
Margaret Bingham
Bev Bingle
Beverly Bingle
Katherine C. Bini
Ella Binz
Mark Binzer
Elaine Biollo
Carol Biouen
Susan Bippley
George Bipps
K.Kay Bircher
michael bird
Zachary Birdsall
Francis Bires
Sr. Celene Birk
Margaret Birtwistle
Rita Birzer
George Ann Biscan
James Bischoff
Mary Bischoff
Maria Bishop
Christina Bishop-Feeny
Mary Bisson
Leo Bistak
Patricia Bitterli
Tori Biu
Andrea Bixler
Tom Bizon
kathleen bizzarro
anne Bjornson
Jane Blabolil
Ann Black
Isiah Black
Stephanie Black
Thomas Black
Beth Blackbird

Paula Blackman
Justin Blackwell
Kalen Bladegroen
Susan Blain
Kevin Blair
TERRY BLAIR
W Blair
Barbara Blake
jeanne blakely
Maria Blanc
Simone Blanchard
Patricia Blanchette
Margaret Blanco
Mika Blanco
Jane Blando
Joanne Blaney
Carl Blankschaen
Priscilla Blanton
Dorothy Blatnica
Rosalie Blaul
Carole Blazina
Barbara Blecka
Jeanie A Bleeme
Joan Bleidorn
Catherine Bleiler
Sr. Cathy Bleiler
Karen Blenker
Barbara Blesse
Jane Blewett
Dr. Beth Blissma
Cynthia Blixt
Adam Bloch
Emily Bloch
Levi Blodgett
Diane Bloom
Emily Bloom
Paul Bloom
Maary Blooming
Susan Bloomquist
Charlotle Blorbam
Sr. Judith Bloxham, OSB
Andrea Blukis
Kevin Blum
Jeremiah ofs Blume
Stephanie Blumenson
Therese Blumenthal
Donna Blumeris
Rodney Bluml
Barbara Bluntzer
Dana Boardman
Wendy Bobadilla
Lana Bobak
mary bobak
robert boberg
Beverly Bobola
Gabriella Boccia
Lena Bochantin
Leona Bochantin
Sr. Trinitas Bochini
Sr. Barbara Bock
Josephine Bock
Sharon Bock
Ron Bocklage
ted boczkowski
Anne Bodach
Mark Boddington
Michelle Boddorff
Ann Bode Rodriguez
Sr. Shirley Bodisch
Andrew Bodlak
Julie Bodnar
Ann Bodnar-Donovan
Michael Bodner
Nancy Bodziak
Jesse Boeckermann
Ruth Boedigheimer
Gerry Boeglin
Sr. Clapr Boehmer
Erika Boeing
Juliana Boerio-Goates

Anne Boettcher
Tom Bogenschutz
Bunny Bohan
Rita Bohling
Ruth Boice
Sr. Mary Boiselle
Theresa Boisseau
Higinia Bol
Linda Bolam
Helen Boland
Shaye Bolden
Jeannette Bolduc
Mary Lou Bolfik
janet bolger
Jennifer Boling
Kerty Bolio
Sr Carol Bollin
Sr. Pat Bolling
Catherine Bolten
Theresa Bolton
Eileen Bolycki
Mary Xavier Bomberger
Jerome Bommer
Judith Bond
Robert Bond
Polly Bone
Monica Bonecutter
Danielle Bonetti
Mary Bonhote
Mirna Bonilla
Judith Bonini, IHM
Sr. Judith Boninni
Rosemary Bonk
Corlita Bonnarens
Claire Bonneau
Catharina Bonner
eileen bonner
Heather Bonner
Tracey Bonner
Sr. Maris Bonnett
Bernard Bonnot
Cheryl Bonny
Peter Bono
Vicki Bono
Carol Bonsignore
Fenna Lee Bonsignore
Len Boodry
Mary Bookser
Jeanne Boomershine
Ashley Boone
James Boone
Sue Boone
Virginia Boos
Martha Booth
James Bopp
Loretta Bopp
Brian Borah
Clare Borah
Meghan Borah
Edith Borbon
stephani borda
Laetitia Bordes
Mario Borelli
Cindy Borer
Sylvia Borgmeier
Lena Borise
Christine Borje
Christopher Bork
John Borkowski
William Borland
Sr. Rosemary Borntragen
John Boroski
Rob Borowski
David Borzenski
Miklos Bosarge
Marlene BOsch
Sister Carol Boschert
Mary Anne Bosher
Leana Bosley
Anthony Bosnick
Carla Bosnjak
Carolyne Bosque
Vic Bostock
Mrs. Julie Boston
Margaret Botch
Linda Bouchard
Jean Boucher
Martha Boucher
Jeanine Boucher-Colbert
Tom Boughan
Maria Bouleris
Michael Bourg

Mary Ann Bourgeois
John Bourke
MARTHA BOURNE
Anne-Marie Bourque
rene bourque
Michelle Bouvier
Nicole Bouvier-Brown
k bovello
Brunella Bowditch
Christina Bowen
Mary Lou Bowen
Agnes Bower
Mary Bower MD
April Bowers
Barbara Bowers
Deanna Bowers
Shannon Bowie
Hugh Bowman
Mary Bowman
Patty Bowman
Walter Bowman
Cecilia Boxell
Sr. Ann Marie Boyce
brian p boyce
Kathleen Boyce
Beth Boyd
Sr. Caomelita Boyd
James Boyd
JUDITH BOYD
Sr. Marie Boyd
Sr. Rosemary Boyd
anne Boyd-Ramirez
Anne Boyer
Br. Gordon Boykin
Brendan Boyle
Denise Boyle
Frances Boyle
Mary Boyle
Mary Jane Boyle
Winifred Boyle
Winifred Boyle
Jonathan Boyne
Sandra Boys
Barbara Bozak
Sue Bozman
Sara Brabec
jeanie brabeck
John Brabeck
raquel brac
Patricia Braccio
denis bracco
Roseanne Bracco
Morgan Brace
Janet Brackett
Caylegh Bradbury
Katie Bradbury
Daniel Bradesca
TeriAnn Bradford
Dolores Bradley
Kathy Bradley
Michael bradley
Margaret Rose Bradley SND
MIchelle Bradshaw
Thomas Bradshaw
David Bradway
Anna Mary Brady
mary brady
Maureen Brady
Mike Brady
Ann Bragg
Joanne Bramley
Mr. David Bramst
Keri Branch
Helen Brand
Debora Brandimarte
Debra Brandis
Elizabeth Brandreth
Deanna Brandsberg
Mrs. Donna Brandt
Florence Brandt
Marian Brandt
Sister Julienne Brandt
Anna Brannan
John Brannigan
Dennis Branse
Eileen Bransfield
Tonya Brantley
Amanda Branum
Deborah Bratcher
Ms. Ann Marie Braudis
Joan Brauer
Suzanne Brauer

Sr. Claudia Rae Braum
Madonna Braun
Mary Jo Braun
Joan Braune
Sara Brave Heart
Pam Bravo
Sr. Catricia Bray
Kirsten Bray
Sean Bray
Catherine Braza
Julia Braza
Mary Braza
Agnes Brazal
Charles Bream
Rebecca Breaud
Peggy Breda
Joan Brede
Eileen Breen
Kenneth Breen
Angela Brehm
Joyce Brehm
Priscilla Brekus
Tim Brellow
Ian Bremar
Michael Brembs
Barbara Bremigan
faith bremmer
John Brence
Kathryn Brencick
Mari (Libby) Brennaman
Agnes Brennan
Ann Marie Brennan
Bonnie Brennan
Caryn Brennan
Sr. Elizabeth Brennan
Giovanna Brennan
James Brennan
Jean Brennan
jim brennan
John Brennan
Mary Brennan
Patrick Brennan
Sarah Brennan
carol brenner
Peg Breslin
Mary Bressler
Mary Anne Bressler
Kathleen Brestensky
Sr. Agnes Bretenbeck
Edward Brett
TOM BRETT
Katy Bretz
Ann Brewer
Marilyn Brewer
Timothy Brewer
Sr. Maria Brgeto
Sally Ann Brickenr
teresa brickey
Richard Bricmont
chrisrine bridenbaker
Kathe Bridges
Linda Bridges
Terrie Bridgman
Fr. William Bried
Agnes Brien
Mrs. Debra Briggs
Peggy Briggs
Barbara Brigham
Pamela Brigham
Christine Bright
Ruth Brighton
Ruth Anne Brighton
Mr. Richard Brigs
Clarone Brill
Marcia Bringardner
Janice Brink
Jenny Brinkman
Tom Brinkmann
Donna Brinton
Nuala Briody

Daniel Brirt
Judith Briselden
Devin Bristol
Mary Bristow
Mr. Stephen M. Brittle
Nancy Britton
Maria Brizuela
Sr. Vanessa Broarn
Sr. Carol Jane Brock
ODILE BROCK
Sr. Rita Brocke
D Brod
Steven Brodell
Becky Broderic
constance broderick
Janet Broderick
Robert Broderick
Christina Brodie
Ann Brodway
Laura Brodway
Mark Brody
Mary Brody
Dorothy Brogan
Dianna Bromaghin
Lynn Bromberg
Linda Bronersky
Carol Brong
Mary Beth Brooker
Ruth Brooker
Antonia Brooks
David Brooks
Dorothy Brooks
Helene Brooks
Joan Brooks
Karl Brooks
Kathleen Brooks
Katie Brooks
regina brooks
Thuy Brooks
Virginia Brooks
Claire Broome
Althea Broomfeld
Sr. Joyce Brophy
Rochelle Brophy
Tracy Brophy
Donna Broshivane
Mary Ellen Brosnan
Caroline Brost
Douglas Brougher
Amber Brown
Brendan Brown
Brian Brown
Chloe Brown
Claudia Brown
Deb Brown
Diane Brown
Erin Brown
Sr. Helen Ann Brown
J. Patrick Brown
Jan Brown
Jean Brown
Joan brown
Julie Brown
Kathleen Brown
Kathryn Brown
Kathy Brown
Laurie Brown
Leah Brown
Lori Brown
Maggie Brown
Malyn Brown
Margaret Brown
Marti Brown
mary brown
Mary B Brown
MaryGrace Brown
Megan Brown
Michael Brown
Patricia Brown
Richard Brown
Sandy Brown
Stephen brown
Sue Brown
William Brown
Helen Ann Brown, CSJ
Kevin Browne
Sheila Browne
deirdre brownell
Ellen Browning
Marshall Browning
Lauren Brownlee
Julie Broyle

R. Brual
Michelle Brubaker
Emily Bruce
Patricia Bruck
Bob Brucker
Natividad Brudento
Regine Bruder
Ann Brueck
Linda Brueckman
Kaitlin Bruegge
Agnes Brueggen
susan bruker
Dick Brummel
Jeanette Brummer
Donna Brunell
Sandra Brunenn
Sr. Sandra Brunenn
angela bruni
Roberta Brunner
Gabe Bruno
Maria Bruno
Janet BRUNO- SMALL
Herbert Bruns
Susan Bruns
Evelyn Brush
Mary Brutosky
Michaela Bruzzese
Lisa Bruzzoni
Helen Bryan
June Bryans
Justin Bryant
Kathleen Bryant
Thomas Bryant
John Paul Bryne
Katherine Bryne
Danat Brysch
Jeffrey Brzyski
Paul Bubash
Mary Bubb
James J. Buccini
James J. Buccini
Marianne M. Buccini
Barls Buchanan
Carol Buchanan
Nadine Buchanan
Sr. Nadine Buchanan
Sr. Mary Buchly
Brian Buchmeyer
Carolyn Buck
Janet Buck
Michael Buck
Stephanie Buck
John Bucki
Lynn Buckingham
Michael Buckler
Sarah Buckler
Annmarie Buckley
Cindy Buckley
David Buckley
Mary Ann Buckley
Michael Buckley
VM Buckley-Kessler
Natalie Buckman
Sylvia Bucknavich
Patricia Buckwalter
Kathleen Budesky
Mary Budka
Joyce Budke
Rita Bueche, SSND
Margaret Buechel
Sr. Genarose Buechler
Irene Buechler
Mrs. Margaret Buechler
Mr. Richard Buechler
Jeanette Buehler
Kaitlyn Buehlmann
David Buehrer
Susan Buerkle
carol buese
Chuck Bueter
Mary Elizabeth Buettner
Jane Bufe
Lynn Bufka
Sr. Mary Jane Buhrman
Nancy Bujnowski
Bill Bukowski
madeleine bukowski
Jo Ann Bule
Bill Bulger
Jeffrey P Bulgrin
Katherine Bulinski
M Bull

Clark Bullard
Elizabeth Bullen
Mike Bullock
Steve Bullock
Sharon Bulrmaster
Eugene Bunch
Mary Bunting
Maria Burakowski
Maureen Buras
Stacey Buras
George Burazer
Elaine Burce
Jeannine Burch
Mrs. Mary Burch
Michael Burch
John Burchill
Helen Burdenski
Rev. Max Burg
Rocky Burge
Ann Catherine Burger
Michael Burgers
Mark Burgess
Alyssa Burgin
Sr. Dolores Burgo
Molly Burhans
Carol Burk
Mary Burkardt
Mrfie Annette Burkart
Adam Burke
Anne Marie Burke
Bonnie Burke
Diane Burke
Flannery Burke
Helen Burke
Irene Burke
James Burke
Mr. Joseph Burke
Karen Burke
Kathleen Burke
Kristin Burke
Lisa Burke
Mary Burke
Mrs. Mary Burke
Maureen Burke
Meredith Burke
Michael Burke
Pamela Burke
Patricia Burke
Priscilla Burke
Sister Richard Mary Burke
Sr. Richard Mary Burke
Stephen Burke
Ellen Burkhardt
Janet Burkhart
Kristin Burkholder
Christopher Burkins
Cathy Burleson
Joan Burlew
David Burman
Madeleine Burman
Rev Dr. Andy Burnette
Sr. Joanne Marie Burnie
Pam Burnott
Breanna Burns
Elizabeth Burns
Mary Jo Burns
Pamela Burns
Sr.Norine Burns
Susan Burns
Mary Burntitus
Mary Burr
Ros Burrett
Nora Burridge
Kathy Burris
Veronica Burrows
Donna Burrus
Kathy Burson
Claire Burt
Patricia Burt
Sr. Marianne Burthon

Cheryl Burton
Christina Burton
Dawn Burton
Edward Burton
Sr. Elaine Burton
Ellen Burton
Frances Burton
Jill Burton
martha burton
Mary Ellen Burton
Tamar Burton
Robert Burwinkel
Harry Bury
Helen Buscarino
Mary Lou Buser
Barbara Bush
Julie Bush
Barbara Bushnell
Ann-Marie Buss
Sr. Rosata Bussan
Jeanette Bussen
Elizabeth Bussinah
Sr. Jeanne Busson
Janette Bussron
Cloris Bustamante
Maria Bustamante
Anthony Butel
David Butel
Theresa Butel
Nicole Butera
Chris Butler
Donna Butler
Sr. Donna Butler
Dyson Butler
Eric Butler
J Butler
Judy Butler
Lilah Butler
Mary Butler
Megan Butler
monica butler
Pat Butler
Veronica Butler
Whitton Butler
Peg Butner
Charlotte Butsch
Pam Butts
Mary Butwin
Theresa Buyco
Nora Buzek
Regina Buzette
Sharon Bycroft
Uiclell Byeb
Daniel Byl
John Byland
Catherine Bylinowski
Allie Byrn
Audrey Byrne
Carol Byrne
Glenn Byrne
Kevin Byrne
Margaret Rose Byrne
Michelle Byrne
Teresa Byrne
Sr Kathleen Byrnes
Thomas Byrnes
W Malcolm Byrnes
Danielle Byrnett
Tanya Byron
Tricia Byron
c c
Elena C
Harriet C
Hidnl C
Joanne C
Kristo C
M C
Mc C
rich c
Cristina Caballero
Gerardo Cabanas
Consuelo Cabral
Michaeleen Cabral
Evelyn Cabrera
david caccia
Ann Cacciari
Colleen Cachero
Sr. Rose M. Cadaret
Jo Jean Cadel
mary clare cadieux
Doris P Cady
Martha Caeiro

Amy Caffarello
Ms. Michelle Caffo
Pita Caffo
Rosemary Caffo
Brigid Caffrey
V Cafre
Kevin Cahalan
Kristine Cahall
Catherine Cahill
Cathleen Cahill
Lee Cahill
Joan Caiazzo
Sr. Susan Cain
Margaret Caire
Pat Cajigas
John Calabrese
James Calandro
Effie Caldarola
Carlos Caldenon
John Calderone
Antoinette Calderone, PhD, RN
Brian Caldwell
Creede Caldwell
Jennifer Caldwell
Mary Ellen Caldwell
Pamela Caldwell
Rose Caldwell
Camille Calegari
Elizabeth Calfapietra
John Calhoun
catherine callaghan
Celestine Callaghan
Dan Callaghan
Brenda Callahan
laurel callahan
Madeleine Callahan
Sr. Sally Callahan
Stephanie Callan
John Callaway
Louise Calleo
Louise Calleo
Mary Callo
Caryl Callsen
Constance Calmes
Michael Calorie
Pamela Calstein
Ann Calus
Michael Calus
Dorothy Calvani
Dorothy Calvani
Cam Calverley
Ronald Calvisi
Karen Calvo
John Calzavara
william Camacaro
J Camacha
George Camacho
Margaret Camacho
Elizabeth Camales
Sr. Michelle Camaroli
AH Camatcho
Mary Ann Camenzul
Mark Camern
Geraldine Cameron
Marilyn Camin
Linda Cammarota
Michael Camoin
Debbie Camp
Robert Camp
Lorraine Campanelli
Elizabeth Campbell
Janet Campbell
Jeff Campbell
linda campbell
Mary Campbell
Sr. Mary Campbell
Paula Campbell
Sandra Campie
Carmella Campione
Donna Campo
Charles Campos
Riley Canada II
Juan Canal
Maria Antonia Canal
Mark Canales
Mary Canavan
Sr. Mary Canavan
Peter Canavan
Teresa Canchola
Shari Candelaria
Maricela Candia
Anne Candreva

martha canez
frank canfield
Grace Cangialosi
Antonio Caniano
Michael Cann
Sr. Coleman Cannay
James Canning
Carly Cannino
Candiece Cannon
Debbie Cannon
Mary Margaret Cannon
Hermelinda Cano
June Canoles
Sister Cory Canon
Jean Canora
Derrick Canton
Carolyn Cantrell
J. Cantrill
Joseph Cantu
Karla Cantu
Melanie Cantua
Eileen Canty
Ken Canty
Judith Capar
Frances Capasso
Fran Capich
Carmen Capitano
Ron Capiteo
Kathleen Capitvco
Mary Ann Capizzo
Kerry Capka
Susan Caplan
Mark Caponigro
Carole Capoun
Cathy Cappiello
Linda Cappitti
Ryan Cappo
Emily Capps
Ellen Caprio
Vivian Caramanna
Bernadette Caramat
Domingo Caratachea
Kathleen Carberry
Carole Carbone
Giselle Carcamo
Rebecca Cardenas
Sarah & Eric Cardenas
Nicholas Cardilino
Monica Cardona
Matt Cardoni
Wilma Cardoza
Roman Carek
regina carelli
Sr. Ana Marie Cares
Anne Carey
Gale Carey
Sr. Helen Carey
Kathleen Carey
Rosemary Carey
Kerrie Carfagno
Mary Carian
Bob Cariola
Fr. John Carirllo
Brianna Carle
Judy Carle
Mary Ann Carlisle
CHRISTINA CARLSON
David Carlson
Dianna Carlson
Mary Carlson
Melinda Carlson
Michael Carlson
Patricia Carlson
Paul Carlson
Rita Carlson
Ruth Carlson
Ike CarlstÌ¬n
Valerie Carlton
Barbara Carmody
Luanne Carmon

Tiffany Carmona
Lauren Carnesi
Blanche Carney
Dana Carney
Mary Carney
Norma Carney
Pat Carney
Rita Carney
Sheila Carney
Victoria Carney
Janice Carolan
Marie Carolyn
Diane J. Caron
Mary Caron
Robert Caron
Joyce Carozza
Kathleen Carpenter
Katherine Carpenti
Chris Carpentier
Elizabeth Carpentier
Sr. Elizabeth Carpentier
Ellen Carpentier
Francesca Carpentier
Laine Carpentier
Ms. Marie Carpentier
Eric T Carpine
Maura Carpinello
Jessalyn Carpino
Barbara Carr
Jacquelyn Carr
Mary Carr
Sr. Mary Carr
Rebecca Carr
Sister Mary Carr
Elizabeth Carranza
Mary Carranza Thalman
Sonia Carrel±o
Joann Carrico
Rev Michael Carrier
Nancy Carrizeles
Alex Carroll
Angelika Carroll
Anne M. Carroll
Helen Carroll
Joyce Carroll
Kayla Carroll
Mary Carroll
Megan Carroll
Nancy Carroll
Sr. Patricia Ann Carroll
Ruth Carroll
susan carroll
Judith Carron
Karen Carrrizales
Charlie Carson
Chris Carson
Colleen Carson
Michael Carsten
Cecilia Carter
karen carter
Laura Carter
Marielle Carter
Meg Carter
Michael Carter
LaDebra Carter Wright
Patricia Carty
John Caruana
Joan Carusillo
Angelia Caruso
charles caruso
Michael Caruso
Mr. Michael Caruso
Raren Caruso
Rosalie Carven
Darcy Carver
Peter Carzasy
Marie Ines Casademont
Marie Casagrande
Mick Casali
Oscar Casarez
Ms. Marilyn Casber
Paige Case
Ann Casey
Christopher Casey
Emily Casey
Jan Casey
Lynne Casey
Mary Catherine Casey
Mary M. Casey
Thomas Casey
William Casey
Sam Cashen

Jim Casher
Sara Casher
Cynthia Cashman
Michael Casiano
Timothy Caslin
Sr. Ann Casper
Margie Cassan
Christine Cassedy
Grace Cassetta
Maco Cassetta
Sr. Janet Cassidy
Mary Ellen Cassidy
MaryAnn Cassidy
Ted Cassidy
Robert Castagna
Susan Castagna
Nancy Castaldo
Eric Castaneda
Kicab Castaneda-Mendez
John Castanon
John Castellano
Marietta Castellano
Monica Castille
Gilberto Castillo
Marijane Castillo
Joanne Castner
Laura Castner
Anne Castro
Carolyn Castro
Chris Castro
Mary Castro-Mendoza
Elizabeth Castrodad
Cynthia Castronovo
Susan Caswell,PhD
Crystal Catalan
Marianne Catalano
Frances Catalced
Anastasia Cates-Carney
Sr. Kanelle Catly
Mallory Cato
Mallory Cato
Matt Cato
Sister Lynn Caton, CSJ
Patricia Catrillo
marie catrino
Kathryn Caudill
Rosalind Cauffman
Judith Cauley
Joyce Caulfield
Sr. Anne Francis Caupbell
Joan Cavaco
Wayne Cavalier, O.P.
Gerald Cavanagh
karen cavanagh
Dan Cavanaugh
John Cavanaugh
Mary Joanne Cavanaugh
Nancy Cavanaugh
Rosemary Cavanaugh
Susan Cavanaugh
William Cavanaugh
Peg Caverley
Sr. Natalie Caw
Elizabeth Cawley
kevin cawley
Dale Cebula
Rose Marie Cecchini, MM
julie cecchino
Teresa Cecil
Janet Cecin
David Cedoz
Amanda Cefaratti
Marilyn Cekal
Sarah Celiberti
Joe Cello
Lucia Cena
Jenna Cencer
Abbi Cerezo
Anthony cernera
Emily Cernoia-Barkley
Jacqueline Ceron
Kelly Cerone
Carol Cerra
jorge Cerruti
D. Roselyn Cerutis
Carlos Cervantes
Jason Cervenec
Virginia Cestaro
Pat Cetera
Kathleen Cevette
Jeanne Chabot
Elizabeth Chacich

KEVIN CHACKO
Carmen Chacon
Sr. Janet Chadderdon
Christopher Chagnon
Mary Brita Chagnon
Eric Chajon
WODILE CHALA TOLESSA
Thora Chaliya
Diane Chambers
Elixabeth Chambers
Gloria Chambers
Connie Champagne MSC
Joe Chamy
Brian Chan
Allan Chan
Christine Chan
Donnll Chan
Carol Chandler
Mary Chandler
Caroline Chang
Patricia Chang
Dr. Marianne Chanti-Ketterl
Magdalena Chapin
jean chapman
Valerie Chapman
Maggy Chappell
Patricia Chappell
Raul Chappell
Sally Chappell
Donna Lynn Chappell, SP
Mary Charbonneau
Doreen Charest
Lou Charest
Sr. Maureen Charest
Nancy G. Charette
Terrence Charlton
Sally Chasson
Mary Chaudet
Sandra Chavero
Arely Chavez
Julia Chavez
Mariana Chavez
Petra Chavez
Sharon Chavolla
Sheri Cheek
Deirdre Chelberg
Marie-Ambroise chellet
Angely Chen
Sr. Catherine Chen
Cheng Chen
Mary Chen
Theresa Chen
Jo Chenell
Edith Cheney
Liam Cheney
george cheng
Lin Cheng
Dolores Chepiga SSJ
John Chepulis
Maria Chepulis
Judy Cherichetti
Joy Chern
MaryLouise Chesley-Cora
Jack Chesnek
Reed Chesnek
Anne Chester
Paul Chestnut
Sue Chiavari
Sheila Chibnall-Treptow
Phil Chick
Sr. Elizabeth Chickory
Carole Chicoine
Gary Chicoine
Sabrina Chiefari
Silvia Chiesa
Karen Childers
Jose Chimbo
Marie Pierre Chinapen
judy chiodo
Kimberly Chirayil

Margaret Chisholm
Laura Chiu
Lee Chiulli
penelope chlebicki
Nancie Chmielewski
Judia Cho
Chong Lay Choi
Erica Chojnacki
Hycanal Chow
Edward Chow SJ
Anne Christ
Anita Christensen
Georgia Christensen
John Christensen
Richard Christian
Karina Christiansen
Roberta Christianson
Maureen Christina
Angela Christman
Lea Christo
Colby Christopher
Kathleen Marie Christopher
Anita Christy
Carol Chrusz
marie chuchvara
Theresa Chun
Jungsook Chung
Antonelle Chunka
Jan Church
Sister Justine Church
Sr. Donna Ciangio
Ghipsel Cibrian
Marie Ciccone
Rose Ciciora
Ms. Mary Cieero
Thomas Cierech
Robert Ciesielski
Marie Cigrand
Maria Cimperman
Nick and JoAnne Cioppi
Pam Cipkowski
Elizabeth Cipollini
Sr. Mary Circhan
Macy Ciriaco-Fisher
Laura Ciriano-Berry
Sr. Maria Ciriello
Kim Cirillo
Dr. Rene Cisneros, Ph.D.
Samuel Ciurca
Pat Claas
Abraham Clabby
Cheryl Claeys
Kathy Claflin
Sr. Marie Clair
Kate Clancy
Lynn Clancy
Maribeth Clancy
Elizabeth clapp
Elisabeth Clardy
Marie Clardy
Maryanne Clare
Fran Clarida
Tessa Clarizio
Ann Clark
Dick Clark
Gerald Clark
Hoyt Clark
jeanne clark
Jill Clark
Jim Clark
Johnna Clark
Judith Clark
Judy Clark
Laura Clark
Linda Clark
Lorraine Clark
Margaret Clark
Mary Elizabeth Clark
Michael Clark
Michelle Clark
Sandra Clark
Sr. Sandra Clark
Sister Sandra Clark
Teresa Clark
Valarie Clark
William Clark
Wilma Clark
Hon. Ken Clark
James A Clark Jr
Robert Clark-Phelps
Anna Clarke
Brigid Clarke

margaret Clarke
Mary Clarke
Stephanie Clary
Strphanie Clary
Lynda Clary-Burke
DON CLAUSEN
Katie Clauss
Sr. Sheila M. Clauss
Joanne Clavel
Joseph Clay
Allison Clayton
Eric Clayton
Anita Cleary
Anne Cleary
Catherine Cleary
Sr. Catherine Cleary
Miriam Cleary
James Cleghorn
Mrs. Pat Clemency
Mary Jean Clemenger
Claire Clemens
Sue Clement
Sr. Kathyrn Clementz
Catherine Clemons
Cheryl Clemons
Sandra Cleva
Kathryn Cliatt
Joan Cliff
Thomas Cliff
David Clifford
Donna and Robert Clifford
Eileen Clifford
Louise Clifford
Allison Clifton
Sr. Madeline Clifton
Starr Clifton
Debra Clingingsmith
Sister Mary Brigid Clingman OP
Donald Clinton
Sr. Peggy Ann Clinton
Sr. Peggy Ann Clinton
Ed Cloonan
Joy Clough
Sr. Sue Clsy
Katy Clune
Sarah Clune
Diane Clyne
Jean Cmiel
Jeanne Cmolik
Sr. Marie Celine Coan
Emily Coble
nalleli cobo
Clarke Cochran
james cochran
Jacqueline Cochrane
John Cochrane
Wesley Cocozello
Marjorie Code
Frank Cody
Lpretta Cody
roland coelho
Donna Coen
pascaline coff
Sister Benita Coffey, OSB
Jessica Coffin
Andrea Cohen
Pamela Cohen
Peter Cohen
Will Cohen
Sr. Ruth Colaianne
ANGELA COLANERI
Laura Colangelo
Sr. Dain Colapietro
Rose Marie Colasurdo
Mary Colborn
janetmarie colby
Amy Cole
Ann Cole
Christine Cole
Elizabeth Cole
judith Cole
Judy Cole
Julia Cole
Carol Coleman
Jan Coleman
Janet Coleman
Joanne Coleman
Kathleen Coleman
Mr. Kevin Coleman
Kim Coleman
Mary Jane Coleman
Steven Coleman

John Coleman S.J.
hannah coley
Brittany Colford
Jeanne Colford
Edna ColÌ_n
Elena Colicelli
Teliciano Colin
Patricia Colla
Elizabeth Collard
Charissa Collazo
Geri Collecchia
Lydie Colleoi
Chandra Collett
Chris Collier
Faith Colligan
Nancy Collin
Bethany Collins
CAROL COLLINS
Catherine Collins
Claire Collins
Dawn Collins
jeremiah collins
Jill Collins
John Collins
Judith Collins
Meghan Collins
Meghan Collins Collins
Michael Collins
Nathaniel Collins
susan collins
Mary Collo
Philippe Collon
Holly Colognato
Joseph Colom
Becky Colombo
Tatiana Colon
Jessica Colton
mstier and andy colucci
RON COLWELL
Margaret Comaskey
Betty Combs
John Combs
Melda Comeau
Joan Comeaux, MSC
Jane Ann Comerford
Margaret Comerford
LAWRENCE COMFORT
Margaret Comfrey
Sr. Cynthia Comishy
Cynthia Comiskey
John Comiskey
Madeleva Comiskey
Martha Comito
Joann Compagno
Norman Comtois
Kathleen Conan
Paulina Conchc
Anthony Condelli
Margaret Conder
Sr. Alice Condon
Marguerite Coneset
Dolores Congdon
Sal Congusita
Angel Conicelli
Cara Coniglio
Helen Conington
David Conklin
Mary Conklin
Robert Conley
Carol Conly
Stephen Connell
Yvette Connell
Corrine Connelly
Sr. Dorothy Connelly
Kathryn Connelly
Robert Connelly
Travis Conner
patricia Connery
Lisa Connolley
Andrew P Connolly

Elizabeth Connolly
Sr. Mary Ann Connolly
Patricia Connolly
Sr. Patricia Connolly
sally connolly
Anastasia Connor
Maureen Connor
Sister Bridget Connor
Agnes Connors
Catherine Connors
Miss Catherine Connors
Kevin Connors
Mary B. Connors
Timothy Connors
Barbara Conover
Marc Conrad
Sr. Jeanne Conrad
Brian Conrady
Sr. Germeine Conroy
John Conroy
Julie Conroy
Linda Conroy
Lisa Conroy
Patric Conroy
Danielle Conroyd
Cecelia Consalvo
frances consalvo
Anne Considine
Trudy Considine
Anita Constance
Patricia Constantino
Linda Conti
sandra conti
Victoria Conti
Zachary Conti
Kathleen Contino, SND
Ashley Contreras
Fanny Contreras
Sr. Emma Contreros
John Converset
Rosemary Convery
Patricia Convey
Cynthia Conway
Erin Conway
Joan Conway
Joyce E. Conway
Mary Conway
Sr. Nancy Conway
Richard Conway
Susan Conway
Christina Conzala
Teresa Cooan
James Coode
Brenda Cook
Charlotte Cook
Darren Cook
Debra Cook
Gary Cook
Jean Cook
Karen Cook
marie Cook
Patricia Cook
Phyllis Cook
Ruth Cook
Sydney-Marie Colleen Cook
Tina Cook
don cooke
Marie Cooke
Pam Cooke Byne
Anita Coolidge
Mary Jane Coolidge
Caroline Cooney
Grace Cooney
Janelle Cooney
Jenny Cooney
Kevin Cooney
Mariannw Cooney
C Cooper
Irmgard Cooper
Sr. Kay Cooper
Kayjoy Cooper
Ms. Kristine Cooper
Lorraine Cooper
Mary Cooper
MJ Cooper
Regina Cooper
Robert Cooper
Dan Coorema
Theresa Copei
Terry Copen
John Corathers
Joseph Corbett

Mary Corbett
Mary E. Corbett
Patricia Corbett
Sister Kathleen Corbett
Claudia Corcho
David & Barbara Corcoran
Katherine Corcoran
Laura Corcoran
sister thomas marie corcoran
Tom Cordaro
Gaetana Cordasco
Brock Cordeiro
Zelia Cordeiro
Christopher Cordell
David Cordero
Lupita Cordero
Nancy Cordonier
Nancy Cordonier
Sarah Cordonier
Sr. Mary C. Core
Cindy Coreas
Joanne Corey
Lindqa Corey
Sr. Marin Corgan
Sr. Elena Coricilli
Marie Corkhill
Mary ann Corman
Neil Corman
Kira Cormell
Paula Cormier
Petro Cormmingtor
Joanna Cormosinio
Lee Cornelius
Jeff Cornell
Joann Cornell
M Doretta Cornell
M. Doretta Cornell
Sr. Patricia Cornell
Marianne Corona
Sr. Teresa Ann Coronas
Sr. Teresa Ann Coronas
Couila Corouo
Josette Corpeutw
Josefa Corpuz
Honora Corr
James Corr
Sister Mary Ann Corr
Savannah Corradini
Nicole Corrado
,Anne Corrigan
Allen Corrigan
Carol Corrigan
James Corrigan
Julia Corriston
Roger Corriveau
Patricia Cortellini
Eulogia Cortez
Isabel Cortez
Tricia Cortez
Fernando Cortillo
Lynn Corwin
Eileen and Brian Cosco
Chris Cosgrove
faith cosky
Jean Cossey
Julie Costa
Sr. Sharon Costadlr
Joseph Costantino
Rilda Costanzo
Annie D. Costello
Barbara Costello
Jackie Costello
Judith Costello
Mary Costello
Sr. Rita Agnes Costello
Sharon Costello
Rebecca Costigan
Tyler Cosune
Kristin Cote
Philippe Cote
David Cottingham
Bridget Cotton
Michael Cotton
Patricia Cotton
Mary Ann Cottone
Marilyn Cottrell
Christopher Couch
Lawrence Couch
Frank Coudrey
Anne Coufal
Christine Coughlan
mary coughlin

Rachel Coughlin
Rosemary Coughlin
Doris Coulson
Mary Coulter
Sr. JoAnne Courneen
Joanne Courneen
Lauren Courson
Marie Courtad
Dot Courtis
Kristeen Courtney
Kelly Cousoulis
Elaine Coutu
Sr. Judith Couturie
Marilu Covani
Lena Covello
Laurel Covington
Diane Cowdrey
Mrs. Diane Cowdrey
Gregory Cowles
Andrea Cox
Ann Marie Cox
Bill Cox
Kathleen Cox
Marie Cox
Molly Cox
Patricia Cox
Sister Mary Lee Cox OSF
Sister Mary Lee Cox, OSF
Maureen Coyle
Patricia Coyle
Daniel Coyne
Sr. Margaret Coyne
Robin Craft
Sister Nancy Crafton SC
Patricia Crahall
Barbara Craig
Bill Craig
Bo-D Craig
Jennifer Craig
Jody Craig
John Craig
Judy Craig
Mackenzie Craig
Sr. Mary Craig
Susan Craig
Teresa Craig
Gerald Craig, OFM Cap.
Virginia Crain
Brenda Craine
Mr. Joseph Cramer
Kay Cramer
Joseph F Cramer Jr
Brian Crane
Mary Crane
Stephany Crane
William Crane
Christioher Cranford
Connie Cranford
Gus Cranrford
Ron Crar
Allen Crawford
Cassidy Crawford
Christopher Crawford
Jason Crawford
Kathleen Crawford
Linda Crawford
Sr. Philip Crawford
Mary Cray
Frances Crean
Ann Creaven
Cindy Crebbin
Kim Crecca
William Creed
Mary Creedon
Mary Creegan
Melda Creener
Florence Cremering
Gayla Cremin
Kaneshia Crenshaw
Carol Crepeau

Julian Crespo
Sonja Crespo
Allison Crha
Leslie Crichton
Peg Crilly
Margaret Crimmins
Michael Crimmins
JoAnn Crinieri
Cynthia Crittenton
Leatrice Crivello
Colette Cronin
Eileen Cronin
Joan Cronin
Mary Ann Cronin
Catherine Crosby
Stacy Crosby
Mary Crosley
Dave and Rita Cross
Eileen Cross
Kathryn Cross
Robert Cross
Russ Cross
Warren Cross
Nora Crossen
Sr. Patricia G. Crother
Arlene Crouch
Thad Crouch
Annette Crouoh
Noah Crouse
Rick Crow
Brent Crowe
Marion Crowe
Lucinda Crowell
Richard Crowell
David Crowley
Jane Crowley
MARIE CROWLEY
Mary Rose Crowley
Sr. Mary Rose Crowley
Maryrose Crowley
Michael Crowley
Susan Crowley
Hannah Croy
Anne Zita Crudden
Sr. Anne Zita Crudden
Ambrose Cruise
Linda Crump
Agustin Cruz
Jose Cruz
luz cruz
David Cruz-Uribe
Charles J. csc
Teresa CSJ
Beth csjp
Helen Cu
Martha Cuccia
Andrea Cuellar
Ms. Dolores Cuellar
Holly Cuff
Martin Culik
David Cullen
Ì_ine Cullen
Irene Cullen
James Cullen
Mary Cullen
Regina Cullen
Anne Cullinane
Kris Culver
Catherine Cummings
Nery Cummings
Patricia Cummings
Phillip Cummings
Carol Cummins
elizabeth cummins
Elizabeth Cummins
Pat Cummins Martinez
Amy Cunnan
Darby Cunning
April Cunningham
Benjamin Cunningham
Ellen Cunningham
Ellen Cunningham
Frances Cunningham
Griffin Cunningham
James Cunningham
maggie cunningham
Mary Cunningham
Megan Cunningham
Myles Cunningham
Sister Karen Cunningham
sr. christa cunningham
Stacey Cunningham

Carole Curcio
Kevin Cureem
Ellen Curl
Jeannine Curley
Mary-Jo Curley
Donald Curran
Hugh & Susan Curran
Patricia Curran
Mary Currie
Adrienne Curry
Dan Curry
Denise Curry
Mary Curry
Nora Mary Curtin
Susan Curtin
Kathy Curtis
Mary F Curtis
Mary Curtsinger
Anne Cusack
Carole Cusack
Anthony Cuseo
kathy cushing
Christine Cusick
Fr. Anthony Custloue
Teresa Cutillo
Elizabeth Cutter
Joseph Cuzzolo
Ms. Josephine Cuzzolo
Dr. Amy Cuzzolo-Kern
Hector Cvellar
Emily Cybulla
Cecilia Cyford
Alyssa Cymbaluk
Dee Czech
Clauire Czerwiec
Gina Czerwinski
Barbara Czyrnik
Sister Carol Czyzewski
Andrea D
Davida D
Davida D
James D
K D
Kim D
Mrs. Theresa D 'Amato
Mr. William D 'Amato

Carmen D'Adamio
Alison D'Addieco
Keith D'Alessandro
Sheila D'ALLEVA
JULIANA D'AMATO
Grace D'Amico
Steven D'Amico
Camille D'Arienzo
Sr.Maureen D'Auria
Maryann D'Imperio
vivien D'souza
Leslie Daaga
Alyssa Dabrowski
Pat Daffenbick
Bernadette Daftary
Christine Dagenais
Gretchen Daggett
Tania Dagle
Josephine Dagostino
Mary Dahl
Laura Dahmen
Colleen Daigle
Lisha Daigle
Kathy Daileda
Dale Dailey
Mary Jand Daily
Jean Dal Porto
Sr. Catherine Dalaney
Sandy Dalcais
Gary Dale
Jean Dale
Victoria Dalesandro
Amy Daley
PAOLA DALLE CARBONARE
Lisa Daloia
Ann Dalton
Clare Marie Dalton
Elizabeth Dalton
Leana Dalton
Sr. Mary Ann Dalton
Sharon Dalton
Manny Daluz
barry daly
Daniel Daly
Helena Daly
Joan Daly

Joan Marie Daly
Kate Daly
Pat Daly
Patricia Daly
Patrick Daly
Teresa Daly
Thimas Daly
Edie Daly, SNDdeN
Gerald Dalzell
Jackie Dalzell
Sara Damewood
Paula Damiano
Marianne Damico
SUE DAMICO
Theresa Damicone
Loretta Dammas
Eden Danaher
Elizabeth Danaher
mary danaher
mary brigid danaher
Martha Dancy
Robert Danders
Mary Dandrea
Nam Dang
Sr. Uyen Chi Dang
Carolyn DAngelo
Mary DAngelo
Maryanne Daniel
Robert Daniel
Susan Daniel
Jim Daniels
John Daniels
Joyce Daniels
Martha Daniels
Sr. Mary Daniels
Gayle Danielsen
Maria Danindo
Michael Dann
Kevin Danovich
Paul Danowski
Sister Roxane Dansereau Op
Tracy Darby
Maggie Dargatz
alexandra darigan
Deborah Darin
Eric Darling
Susan Darling
Cheryl Darmon
Debi Darnell
Elizabeth Darovic
Mimi Darragh
Ms Mimi Darragh
mike darras
Carroll Dartez
Margarida DaSilva
Mary Dateo
Berilengar Dathol
Carol Datz
Sr. Constance Daub
Christine Dauenhauer
David Dauenhauer
Sister Colleen Dauerbach SSJ
Elizabeth Daugherty
Julie Daurizio
Roxanne Daus
Reto Davatz
Julie Davenport
Kathy Davenport
Therese Davenport
Vincent Davi
Sr. Mary Davia
James david
Josephine David
Judith David
Anita Davidson
elizabeth davidson
Emily Davidson
Margaret Davidson
Charlene Davies
Nancy Davies

Carlos Davila
MT Davila
Antoinette Davis
Brenna Davis
Candace Davis
cheryl davis
Chris Davis
Daniel Davis
Deborah Davis
Donna Davis
Glynis Davis
Jean Davis
John Davis
Kathleen Davis
Keith Davis
Kelly Davis
Leslie Davis
Linda Davis
Sr. Margice Davis
Margie Davis
Mark Davis
Mary Jo Davis
Matthew Davis
Nancy Davis
Pam Davis
Patricia Davis
Peter Franklin Davis
Philip Davis
S. Rosemary Davis
Teresa Davis
Vince Davis
Mary Frances Davisson
PC DAW
Karen Dawn
Pedro Dawrins
Geri Dawson
John Dawson
Joelle Dawson-Barker
Angie Day
Joe Day
Kathleen Day
Martin Day
Mary Day
Paul Dayton
Reine Ddecker
Eva De Anda
Ruben de Anda
Carol De Angelo
Sr. Carol De Angelo
Tanguy de Bienassis
Diana De Bruin
Carol De Filippo
Ana-Rosa de la Cruz
Sr. Ann Rosa De la Cruz
Patrick De La Garza Und Senkel
Rodrigo de la Parra
Alfredo De leon
annick de Monts
Cynthia De Mraude
Jean de Rubens
Shannon de Rubens
Linda De Sitter
Juliana de Tarnowsky
CAROLYN DE VOE
Anne Elisabeth De Vuyst
Siobhan De Witt
Christina De;;aventura
Florence Deacon
Mary Deacy
Sr. Janet M Deaett
Patricia Deal
Patricia Deamond
Sr. Bernadette Dean
carly dean
Darrell Dean
Ken Dean
Mary Dean
Susan Dean
Celia Deane-Drummond
Sr. Maria DeAngeli
Nancy DeAngelis
Anne Dearden
Sr. Georie Dearpuw
Jan Debe
Mark Debe
Ann DeBened
MaryBeth DeBlasio
Linda DeBor
Firmin DeBrabander
Lynn DeBroeck
Annette Debs
Sr. Annette Debs

Nancy DeCapua
Barbara Decherd
John Deck
Matt Deck
Sylvia Deck
Sr. Hilary Decker
William Decker
Anthony DeCorte
Rebecca DeCorte
Sr. Kathleen Dede
Gita Dedek
Keisha Deeds
Caroline Deegan
John Deegan
mary deem
Mary Jo Deerwester
Steven J. Deerwester
Michel Dees
Lena Deevy
Hugh DeFazio
Sr. Concetta DeFelice
Angela DeFontes
Joyce Degen
Anthony DeGennaro
Darrah Degnan
Anna Degollado
Anne DeGraaf
Jean DeGrella
David DeGroot
Donald F DeGroot
Cathy DeHart
Paul Dehmer
Kathleen Deignan
Joan Deisner
Julia Deiters
Nathaniel Dejan
Erin DeKlotz
Louise Dekreon-Watsjold
Charlene Del Bianco
Gemma Del Duca
Gemma Del Duca
theresa del rosario
Judy Del Russo
Carmela Del Vecchio
Andre Dela Paz
Mark Delabar
Patrick Delahanty
Mary E Delaney
Patrick Delaney
PRISCILLA DELANEY
Suzanne Delaney
greg delanty
Linda DeLaquil
Donald DeLauder
Lorraine Delehanty
Marlene DeLeon
Barb DeLeone
Mary Lynn Delfino
Albert Delgado
Antonio Delgado
Carlos Jesus Delgado
Isabel Delgado
Martha Delgado
Xarole Delia
Sr. Suzanne Deliee
Aleta DeLisle
Norma Dell
Melissa Della Vecchia
Timothy Della Vecchia
Antoinette DellaCroce
Lauren Dellapina
Mary DellaVecchia
Patricia Dellera
Allison DeLong
Kathleen Delozier
barbara delridge
Deyanie Delrio
Liane Delsuc
Ginny Deltoro-Ramirez
Virgina Deltoro-Ramirez
Geraldine DeLuca
Lorraine DeLuca
Lynda DeManti
Sr. Doratella DeMarce
Amelia DeMarco
Donatella DeMarco
Virginia DeMaria
Carmen DeMarinis
Amanda Demarino
Pamela Demasi
Sr. M. Pierre Dembinski
Sister Demboski

jesse demello
Linda Demer
Elizabeth DeMerchant
Daniel Demers
David Demers
Emily DeMoor
Tamara DeMuth
Marlene DeNardo
Sr.Loretta Denfeld
Jeanna Denham
Margaret Denison
Mary Denne
Margaret Dennehy
Marybeth Dennett
Paula Denney
sandra k dennis
Shelley Dennis
Eileen Denny
Sr. Mary Patricia Denny
Patricia and Donald Denny
Dawn Denome
Michael Denosky
Julianne Dent
Nancy Denton
Mary Jane Deodati
Vera DePalma
Alexandra Deprez
Christine DePutron
David DePutron
Christopher Derby
Connie Derby
Karen Derenthal Schmidt
Mary Alice Derigman
Pamela deRoy
Joseph DeRpy
Brad Derrick
Shannon Derrick
Ray Derstine
Carla DeSala Fal
Al DeSalvo
Lynn DeSalvo
Kathleen Desautels
Margot Deschenes
Martin Deschenes
James Deshotels
Jeanne DeSimone Sieger
Karen Desjardins
Annette Deslover
Judith Desmarais, SP
Joan E Desmond
Sheila Desmond
Paula-Jean Despathy
Rachelle Desrochers
Don Desroches
Sr. Anne-Marie Desroches
Sandra DeStefano
Debra Deszell
Nicole Deter
Mary Detrick
Lori Dettling
Karen Dettwyler
catherine deubel
Paula Marie Deubel
celia deutsch
Anne Devaney
Camille Devaney
Judith Deverell
Doewelle DeVine
Emily Devine
Karla Devine
Terrence Devino
Anthony Devito
Brent Devitt
mary devlin
Sister Peggy Devlin
Stephen DeVol
g dew
Rosemary Dew
Jacqueline Dewar
Myra Dewhurst

Elleen Dewsnup
Dorothy DeYoung
Linda Dezotelle
Kathy Di Fede
M. Gervasi Di Gregorio
Virginia Di ILIO
Marilyn Di Lascio
Kim Di Maggio
cor Di Stephan
Antonio Dia
Sr. Mary Bride Diamonl
Sr. Margaret Dianieri
Molly Dias
Nancy Dias
Carmen A Diaz
Marian Diaz
Pedro Diaz
Rosemarie Diaz
Karen DiBagno
Bette DiCesare
Pauline Dicicco
Kathleen Dickason
Kathryn Dickersan
Eileen Dickerson
Jacqueline Dickey
Amanda Dickinson
Robert Dickinson
Eileen M. Dickson
Jean Dickson
Lucretia Dickson
Sr. Mary DiCroce
Margaret Didden
Josal Diebold
Sister Paulanne Diebold
Sr. Paulanne Diebold
Margaret Diener
Kurt Dieringer
Paula Dierkes
Irene Diesel
Patricia Dieter
Marie Dietrich
Sr. Dolores Rachel Dietz
Mary Dietz
Monique Dietz
Wessie Dietz
Sr. Margret Dietzen
Mariah DiGabriele
joan digan
Suzanne DiGiovanni-Smith
Dan DiLeo
Katie DiLeo
Irma Dillard, RSCJ
Stacey Dilliingham
Gavin Dillingham
Cecelia Dillon
Sr. Joan Dillon
Joanne Dillon
Margaret Dillon
Patricia Dillon
Barbara Dilly
Dora Dimichele
Sr. Marlene Dimmerling
Joseph Din
Judith DiNardo
Jane Dinda
Tom Dinell
William Dinges
Tracey Dinkin
Patricia Dinneen
Marie elena Dio
Patricia Diokno
Patricia Dion
Frank DiPeri
Karen DiPippa
Carol DiPirro
Alan Dippy
Anthony Dipre
David Dircks
Jennifer DiRenzo
Diane Dirksen
Dorothy Dirkx
Christine Dirmeir
Betty Dirr
Mary Dirr
Charles DiSalvo
Clare DiSalvo
TERESA DISCH
JoAnne Disney
sylvia diss
Nicole Dister
Barbara DiTommaso
Susan Dittes

Maryann Dittgen
Melaney Dittler
Moya Dittmeier
Patricia Dittmer
Br. Paul Diveny,OSB
Mary Elizabeth DiVincenzo
Chris Dixon
Martina Dixon
Susan Dixon
Vernon and Mary Joyce Dixon
Boudina Djamila
Jenn Dobbins
Tom Dobbins
Rachel Dobbs
Dorothy Dobbyn
Virginia Dobler
Gerianne Dobmeier
Linda Dobni
Andrea Dobrin
K Dodds
Mrs. Judith Dodge
Paula Dodge
Jacquelyn Doepker
Mary Doerflein
Leonard Doerfler
Sr. Evleen Doglia
Regis Dognin
Jenna Doherty
Lorraine Doherty
M M Doherty
Margaret Doherty
Michael Doherty
Phyllis Doherty
Samantha Doherty
Susan Doherty
Susan E. Doherty
Sister Maureen Doherty, CSJ
Janet Dohr
Mr. William Dojato
Dorothy Dolak
Dorothy Dolak
Matthew Dolamore
Allie Dolan
Diane Dolan
Kathleen Dolan
Mary Dolan
Sr. Mary Dolan
Michael Dolan
Marie Dolce
mary dold
Rosemary Doleski
dorothy dolezal
Megan Dolezal
Gemma Doll
jerry doll
Sarah Dolley
Dan Dolyce
Anne Domach
Katie Domanowski
Mrs. Karen Dombrowski
Renee Domeier
Andrew Domenech
elizabeth domigan
Aureli Domingo
Cuaunteoc Domingo
Lucy Dominguez
Yvette Dominguez
Mrs. Audrey Dommelly
Daryl Domning
Percival Domondo
Teresa Donahoe
Cecelia Donahue
Chris Donahue
Gabriel Donahue
Gail Donahue
Gene Donahue
John Donahue
Karen Donahue
Mark Donahue
Patricia Donahue
Jean Donaldson
Steven Donaldson
Sue Donaldson
Raelene Donarski
William Donegan
Dawn Dones
Diana Doneza
Marianne Donley
Rita Donlon
Beatrice Donnellan
Paul Donnellan
Ann Donnelly

Carol Ann Donnelly
Claire Donnelly
Dolores Donnelly
Doris Donnelly
Margaret Donnelly
Sr. Mary Clare Donnelly
Sister Ellen Donnelly
Irene Donner
L Donnermeier
Margot Donnes
Maureen Donofrio
Rachel Donofrio
Betty Donoghue
Mary Donohoe
Maureen Donohoue Howell
Mark Donohue
Mary Donohue
Maura Donohue
Sharon Donohue
Susan Donohue
Steve Donoso
David Donovan
James Donovan
Mary Donovan
Thomas Donovan
Marguerite E Donovan CSJ
Eileen Doohan
Mary Ann Dooling
Bryan Dopheide
Stephanie Dopheide
Joan Dopnek
Gema Dorado
Susan Dorado
Kathleen Doran-Norton
Gregorio Dorantes
Carole Doring
Sr. Angelica Doris
Kristina Dorkoski
Rita Dorn
Elizabeth Dorner
John Dorner
Kathleen Dorney
John Dorroh
Sara Doruska
Mary Dosek
Maggie Dostal
Mike Dotson
Carol Doty
Debby Doty
Patricia Dotzauer
Barbara Doucet
Sr. Linitta Doucette
Ann Dougherty
Ann Mary Dougherty
Daniel Dougherty
George Dougherty
Mary Anne Dougherty
Sister Albertus Dougherty
Manetric Douglas
chris douglass
shelley douglass
Margaret Doumitt
Krysia Dour
Michael Dour
Jackie Dove
jean dover
Ken Dovet
kate dow
Sharyn Dowd
therese dowd
Virginia dowd
Michelle Dowdall
Peter Dowdall
tim dowdell
Vernon Dowdoll
Jeanne Dowell
Ryan Dowell Baum
Dennis R. Dowell, ofs
Dan Dowling
madeleine dowling

Arden Down
Jason Downer SJ
Dawn Downes
Betty Downey
Linda Downey
Rita Downey
Carol Downing
Donna Downing
Janice Downs
Eleanor Dowson
Ashley Doyle
Dot Doyle
Eugene Doyle
Jennifer Doyle
John Doyle
Kathy Doyle
Larry Doyle
Lori Doyle
Lu Doyle
Mary Doyle
Mary Doyle
Robert Doyle
Mary Ellen Doyle, SCN
Anne Dragoo
Dianne Dragoo
Nathan Drahms
Jennifer Drake
Andy Drance
Shelly Drancik
Joanne Draper
Mynka Draper
Paul-Mary Draxler
Nigel Drego
Roberta Dreifke
Renee Dreiling
Sr. Sue Ellen Drelen
Sr. Raphail Dreme
Jeffery Drergsten
Lori Dressel
Tim Dressel
Ken Drew
Alice Drewek
Roberta Drewiske
Elizabeth Dreyer
Nora Dries
Kathleen Drilling
Jerrie Drinkwine
Cathy Driscoll
Edward Driscoll
Julie Driscoll
Kathleen Driscoll
Marie Driscoll
Patrick Driscoll
Sr. Alicia Dromw
Magatte Drop
Marianne Dropp
joyce dropps,csj
Mary Drouin
Louise Drucker
Pauline Druffel
Jean Drumm
Catherine Drury
Susanne Drwry
Constance Dryden
Tracey Dryden
Susan Dryden
Marie A. Dryden,OP
Sr. Maria Christi Drysdale, G.N.S.H
Rosemarie Dsiegel
Ruth DSylva
Sr. Pat Dual
Carlota Duarte
Diane Dube
Janet M. Dubec
Ellen Dubiel
John Dubord
Kathryn Dubus
Charles Duck
Nancy Duck
Nancy Duda
Antoinette Dudek
Dave Dudinsky
Harry Joseph Dudley
James Due
Marta Duenas
Robert Dueweke
Peter Dufault
Elizabeth Duff
Mark Duffey
clare duffy
Connor Duffy
Irene Duffy

John Duffy
Kathleen Duffy
Ms. Kathleen S. Duffy
Sister Sally Duffy, SC
Elaine Dufresne,csj
Angela Dugan
Brian Dugan
Debbie Dugan
Mary Dugan
Michelle Dugan
Richard Dugan
Alice Dugar
Kathleen Duger
Kevin Duggan
Ann Duhaime
Paula Dukehart
Maryanne Dulansey
Diana Dulebohn
Amy Duling
Dan Dully
Gretchen Dumas
Aiden Dummigan
Serge Dumont
Sr. Joan Dunas
Ellen Duncan
Kalven Duncan
Ronald Duncan
Faustino Dunckhorst
Tara Dune
Dirk Dunfee, S.J.
Dorothy Dunlap
Rachel Dunlap
Marsha Dunlavy
Martin J Dunleavy
Theresa Dunleavy
Sr. Julie Dunlop
Lorian Dunlop
Brian Dunn
fredrica Dunn
Grace Dunn
Grace Dunn
James Dunn
John Dunn
Moira Dunn
Molly Dunn
Nancy Dunn
Nora Dunn
Noreen Dunn
Shannon Dunn
Sheryl Dunn
Ellen Dunn,OP
Denise Dunne
michaelina dunne
John Dunning
Susan Dunnwald
Kathleen Dunwoodie Aman
Linda Dunwoody
a Dupin
Michelle Duplissis
Molleen Dupree-Dominguez
Monica Duran Castillo
Adelbert Durant
theresa durbin
Sr. Celia Durea
Jean Durel
Angelynn Durham
Katie Durham
Susan Durik
Joan Durkan
Kathleen Durkee
Daloren Durken
Erma Durkin
Kathleen Durkin
Mary-Cabrini Durkin
Samuel Durkin
Gerald Durley
Aaron Durnbaugh
Joyce Durosko
Mary Durost
Maria Durrant
Nancy Durso
Ada Dusi
Sr. Mary Felica Duska
Sister Mary F. Duska
Frances Dutil
Ms. Mary K. Dutko
Suzanne Duzen
Charlie Dvergsten
Suzanne Dvergsten
David Dvorabic
Benet Dvorak
Terry Dvorak

Sr. Rose Dvorak,osf
Dorothy Dwight
Kara Dwight
Patricia Dwight
Stephen Dwight
Kathryn Dwyer
Mary Dwyer
Maureen Dwyer
Sara Dwyer
Thomas Dwyer
Tom Dwyer
Virginia Dwyer
Mke Dyer
Judith Dykeman
Dennis Dymeck
Terri Dymeck
Joy Dynowski
Paul Dyroff
James Dzera
John Dziak
Katie E
P E
William Eagan
Jeanne Eagle
Jo Ann Eannareno
susan earle
Ilze Earner
Kris East
Sally East
Mary Eastery
Daniel Eastman
Deborah Eastman
SYLVIA EASTMAN
Andy Eastwood
Parthav Easwar
Romola Eaton
Rose Eaton
Walter Ebbesmeyer
Marcus Ebenhoe
Shelby Eberhard
Christine Eberle
Daniel Eberts
Karen Eberts
Ms. Carla Eble
Marguerite Ebrite
Veronica Echavarria
Laura Echevarria
Patricia Eck
Ronald Eckerle
Jamie Eckhardt
KL. Eckhardt
Jeanine Ecklund
Ellen Eckman
John Eddy
Elleen Edebohls
Jennifer Edelen
Margaret Eder
Margot Eder
Patricia Eder
Virginia Edman
Sharon Edmonds
Shelly Edmonds
Amy Edwards
Beryl Edwards
Sr. Francis Edwards
Julie Edwards
Lynn Edwards
Margaret Edwards
Mary Ellen Edwards
Paige Edwards
Shelly Edwards
Stephanie Edwards
Ann Egan
Diane Egan
Margaret Egan
Maureen Egan
Sr. Nora Egan
Peter Egan
Mary Lee Eggart
Nancy Egolf

Barbara Ehemann
Sr. Mary Ehling
Mary Ehling, IHM
Valerie Ehrharet
Robert Ehrsam
Pat Eichenold
alice eichers
Maria Eichhorn
Grace Eidt
Grace M Eidt
Bcill and Tassy Eigel
Theresa Eiken
Jessica Eilerman
Marge Eilerman
Barbara Einloth
Arlene Einwalter
Carole Eipers
George Eisele
Carista Eisenbeiss
Ellen Eisenberger
Margaret Eisenberger
Sr. Carita Eisenheiss
Thelma Ekeocha
John Ekers
Kristen Ekox
Sharon Ekstrand
Lorelle Elcock
Mary Eldredge
Jessica Ele
Sr. Michele Elfering CSJ
Sr. Margaret Elfheil
Maureen Elfrink
Raymond Elias
Sister Mary Joan Elias
Kathy Eliscu
Heather Elizondo Vega
Jim Elk
Pat Ell
John Ellersck
Kathy Ellinger
Sr. Debra Ellint
Gregory Elliott
Donna M. Ellis
Irene Ellis
Lonnie Ellis
Pamela Ellis
R. Ellis
Brett Ellison
Noreen Ellison
Ms. Cecilla Ello
Robin Elm
Michael Elmore
Carol Elrause
Alan Elrod
Beatnz Elrod
Ruth Elsbernd
Joanne Elsbrock
Marjorie Elsenman
Sharon Elsesser
Pam Elsey
Deolinda Eltringham
Sharon Ely
ANGELA C EMBREE
Aleta Embrey
jacqueline emch
Anne Emdin
Mary Emerick
Mary Ann Emerson
Mary Emfield
Rebecca Jean Emigh
Tim Emineth
Rose Emma
Edith Emmenegger
Kris Enderle
Nancy Endres
Peggy Endres
Nikki Endsley
Theresa Enery
Scott Engdahl
Maria Engelen
Mark Engelen
KATHERINE ENGELHARDT
Bernadette Engelhaupt
Corinne Engelman
Michelle England
elizabeth engleman
Mary Englerth
Barbara English
Elnora English
Marjorie English
Rita Englum
Mary Ann Ennis

Mary Jo Ennis
Wayne Enos Jr
Maryann Enright
Eileen Enriquez
Mary Entress
mary enyart
John Enzmann
Sister Rita Epilone, csj
John Eppensteiner
Ken Eppes
Eileen Eppig
Kelly Epstein
as er
Lori Ercolini
Melody Erdwein
Nancie Erhard
Lois Erhey
Lisa Erickson
Nancy Erickson
Perla C Erickson
MRS. MARIE-LOUISE ERICSEN
Marilyn Ermer
Janice Ernst
Audrey Ernstberger
MICHAEL ERSKINE
Annie Ertle
Carol Ertle
Dan Ertle
Joe Ertle
Karl Ertle
Katie Ertle
Mary Ertle
Timothy Ertle
Nancy Erts
Sr. Nancy Erts
James Ervin
Paule Ervin
Don Erwin
Ellen Erzen
Robert Erzen
Robert Erzen
Brenda Escalante
Laura Escobedo
Luis Escobond
Natalia EscrucerÌ_a Price
Gustavo Escruceria
Kathleen Eskridge
George Esparza
Carrie Esper
John Esper
Julio Espinal
Irma Espindola
Anna Marie Espinosa Espinosa
Dan Esposito
Donna M Esposito
Sister Phyllis Esposito
mary esselman
Robin Esteb
Mary Estock
Eladio Estrada
Kimberly Estrada
Margarita Estrada
Gus Eta
Greg Eufinger
Mary Anna Euring
V Evan
Ana Evangelisto
Shirley Evanicsko
Cecilia Evans
Joshua Evans
nancy evans
Pam Evans
Patricia Evans
Robert Evans
Becky Evaristo
Sister Josetta Eveler
Judith Evelyn
Miranda Everett
Linus Evers
Paul Eversman
Madria Everson
Theresa Everson
Thomas Everson
Daniel Everson, SJ
Maira Evey
Linda Evinger
Sr. Loretta A. Ewing
Beth Exton
Rosemary Eyerman
Anna Eyring
Fumiko Ezoe
Alejo Fabian

Sister Marise Fabie
Miriam Fabien
Evaristo Fabier
Concetta Fabo
Donna Fabris
Rosetta Fackler
Nancy Fackner
Tony Fadale
Candace Fagan
Mary Lou Fagan
Sr. Madeline Fahey
marietta fahey
Barbara Fahmy
Gill Fahrenwald
Colette Fahrner
Jo-Anne Faillace
Judy Fairless
Linda Faist
Veronica Fajardo
Phillip Faker
Diana Falahee
Brett Falcon
Mrs. Anne Falcone
Melanie Falina
Traci Fallecker
Sr. Elizabeth Falllon
Greg Fallon
Jean Fallon
Katy Fallon
Stephen M Fallon
Ms. Joan Faltot
Jean Marie Faltus
Sister Clarice Faltus
Patty Famsmd
Sr. Suanne Fanguy
Marilyn Fanning
Patricia Fanning
Regine Fanning
Kalowtie Fantini
Luciano Fantini
Lillian Fanuko
Kate Farabaugh
Beverly Farano
Maryellen Fargey
Mrs. Joan Farley
Janene Farmer
Larry Farmer
Durstyne Farnan
Janice Farnham
Nora Farr
William Farrand
Carollyn Farrar
Catherine Farrell
Emmet Farrell
Kathryn Farrell
Margaret Farrell
Mary Elizabeth Farrell
Mary Lee Farrell
Pat Farrell
Pat Farrell, OP
Virginia Farrelly
Tracy Farwell
Fran Fasolka
Jane Fasone
Catherine Fasy
Winnie Fatton
Mary Anne Faucher
Elise Faucky
Karla Faulkner
Mary Fauls
Angela Faustina
Jennifer Fausto
Tanya Favazza
Veronica Favela
Barbara Favre
Karen Fawley
Jack Fay
Jeffrey Feathergill
Janet Fecteau
Sr. Carole Ann Fedders

Sisters of Charity Federation
Kristen Federico
Kathy Fedr
Mary Fee
Catherine Feeney
Donald Feeney Jr D.M.D.
Cathy Fegaue
Anne Fehmel
Sr. Barbara Fehr
Karen Fehr
Richard Fehr
Veronica Fehrenbach
Rosalind Feicht
ROBERTA FEIL
Sr. Roberta Feil
Bernice Feilinger, SSND
Louise Feinberg
Melissa Feito
Roseann Fekete
Keri Feldkamp
Jo Anne Feldman
Jenna Feldstein Dickey
Kyle Feldt
Jun Feler
Marylyn Felion
Bibana Felipe
Dave Fellows
Chris Felt
Elizabeth Femal
Rosanne Feneley
Marta Fenn
Mrs. Nancy Fennell
Mr. Bill Fenogllo
Roseanna Feolele
Patrick Fereday
Andrea Fereshteh
Mary Fergason
Ani Ferguson
Celia Ferguson
Christina Ferguson
Tamara Fernaindez
Francis Fernandes
Rev. John Fernandes
Beth Fernandez
Francesca Fernandez
Francisco Fernandez
LYDIA FERNANDEZ
Stephanie Fernandez-Ramirez
Judy Ferneau
John Ferner
Carole Fernholz
Sisters Kathleen and Annette Fernholz
Adrian FernÌÁndez Casares
Gabriel Ferrante
Anne Ferrara
Angela Ferrari
Mary Ferraro
Francisco Ferrer
Sarah Ferriell
Carole Ferrill
Kent Ferris
Hilary Ferrone
Millicent Feske
Maria Fest
Sr. Theresa Martin Fetch
Virginia Fettig
Stacy Fettner
Celeste Feuerbach
Andre Feulner
Suzanne Ficara
Rose Ficker
Sister Rose An Ficker
Dan Fickes
Billre Fidlin
Dewey Fiechehe
Maureen Fiedler, SL
Esther Fiegel
Annette Field
jeanne fielder
Jerryldeane Fielder
Nathan Fiereck
Sr. Rosemarie Figlia
Mary Ann Figlino
Martina Filerio
Kathleen Filippo
Gavin Finaly
Kate Finan
Geraldine Finazzo
Judy Finch
Sr. Barbara Finch
Mary Fineran
Ann Finger

Robert Fingerman
Catherine Fink
Maya Finlay
Margaret V Finley
Louise Finn
Regina Finn
Marchand Finnegan
mary finnegan
Melissa Finnegan
rosemary finnegan
Kathleen Finnerty
Marcia Finnerty
Mary Kay Finnigan
Michelle Finnigan Drew
Mary Finocchario
Oleg Finodeyev
Dan Finucan
Mary Anne Finucan
Livia Fiordelisi
Nicole Fiori
Barbara Fiorino
Anita Fischer
Sr. Bertha Fischer
Carl Fischer
Mr. Daniel Fischer
Deborah Fischer
Jan Fischer
Mr. Jeremy Fischer
Mrs. Kathleen Fischer
Mrs. Katie Fischer
Kris Fischer
Larry Fischer
Nancy Fischer
Wendy and Dan Fischer
Andrea Fischer-Ortiz
Marie Fischette
Donnamarie Fiscina
Michael Fishbein
Dennis Fisher
Elizabeth Fisher
Elizabeth Fisher
Gail Fisher
Lou Fisher
Thomas Fisher
Wayne Fisher
Bruce Fishkoff
Jack Fishman
bruce fisk
Margaret Fissinger
Lee Fister
Stanley Fistick
Kaitlin Fitch
Melissa Fitch
Agatha Fitzgerald
bethany fitzgerald
Ellen FitzGerald
Jacqueline Fitzgerald
Judy Fitzgerald
June Fitzgerald
Margaret Fitzgerald
Mary Fitzgerald
Phyllis Fitzgerald
Sheila Fitzgerald
Stan Fitzgerald
Bettina Fitzgerald's
Rachel Fitzgibbon
Angela Fitzpatrick
Brian Fitzpatrick
Jim Fitzpatrick
Rita Fitzpatrick
Sheila Fitzpatrick
Sr. Jude Fitzpatrick
Sr. Susan Fitzpatrick
Mary Fitzsimmons
Elizabeth Fixsen
Ann Flaherty
Barbara Flaherty
Maureen Flaherty
Owen Flaherty
Sister Arlene Flaherty
Sister Arlene Flaherty OP
Patricia Flaim
Joan Flanagan
Margaret Flanagan
Glenore Flanders
John Flanders
Raymond Flanders
Mary Kay Flanigan, OSF
Richard Flannery
Teresa Flannery
Sister Beth Flannery RSM
Kathleen FlanneryOSU

Sr. Dolores Flarin
Sally Flask
Angela Flavin
James Fleck
Gail Fleenor
Patricia Fleetwood
Mary Fleischaker
Ken Fleischer
Lizzy Fleischmann
Ellen Fleishman
Thomas W Fleitz
Brian Fleming
Daniel Fleming
Lynn Fleming
Maureen Fleming
Michael Fleming
Rosanna Fleming
Sister Peg Fleming
Mark Fleniken
Dave Fletcher
Jane Flickinger
Richard Flisher
Anna Flnagan
Trish Flock-Johnson
Barb Flom
Tara Flood
Corinne Florek
Carmen Flores
Claudia Flores
Ellen Flores
Eugenia Flores
Francias Flores
Jackie Flores
Jean Flores
LUCILLE Flores
Migdalia Flores
Norma Jean Flores
Jeffrey Floresca
Lucia Florio
Dolores Flowere
Evelyn Flowers
Jennifer Fluharty
Sr. Betsy Mary Flynn
Carol Flynn
Ed Flynn
James Flynn
Josephe Marie Flynn
Julie Flynn
Kevin Flynn
Matthew Flynn
Michael Flynn
Rebecca Flynn
Rev. James Flynn
Patricia Flynn OP
Najrit FM
Mary Foakett
Margo Foeller
Andrew Fogarty
Harry Fogarty
Louise Foisy
Agnes Foley
Donna Foley
Joan Foley
Mary Foley
Mary Ellen Foley
Sr. Mary Folla
Mary Fong
julia fonseca
Renita Fonseca
Catherine Fontanazza
Raquel Fontanes
Daniel Fontugne
Sr. Ann T. Fooley
Christine Foos
novelette Foote
Don Foran
Judith Foran
Cathereine(Know as Eugenia Mariein) Forbeck
Reese Forbes
Rebecca Forbes Wank

Janice Ford
Sr. Mary Ann Ford
Michael Ford
Joe Forde
Morrie Foreer
Elray Foret
Gloria Foret
Sr. Mary Forman
Diane Fornasier
Carol Fornek
Elizabeth Foroler
Jim Forrly
Sr. Corinne Forsman
Marsha Forson
Sr. Elise Forst
Don Forster
Michael Forster
Dorothy Fortenberry
Sr. Carlotta Fortes
Maura Fortkort
Mary Fortunato
jennifer Foss-potter
George Fosselius
Alan Foster
Gregory Foster
Jacqui Foster
Mary Foster
Patrick Foster
Paul Foster
Shannon Foster
Terry Foster
Tracy Foster
Elizabeth Mary Foster, SSND
Keri Fotesimms
Sally Foti
Francis Fotusky
Paula Fougere
Terry Fountain
Evelyn Fournet
Mary Foutz
Beverly Fowler
Glenn Fowler
Patricia Fowler
Brooke Fox
Cindy Fox
Eleanor Fox
Erin Fox
Gene Fox
Linda Fox
Mary Fox
Matt Fox
Sr. Sharon Marie Fox
Theresa Fox
Marilyn Foy
Anne Fragasso
Brian Frain, SJ
Amy Fraler
Ivette France
Margaret France
Michelle France
Sister Catherine France
Susan Francesconi
Alan Francis
Bro.Mbalanga Francis
Caryn Francis
Edward J Francis
MaryAnn Francis
Patricia Francis
Clayton Francis-Gerald
Brian & Margaret. Francis.
Ed and Anne Francisco
Dr. Maria Franciso
Matthew Franck
Margaret Franco
Mary Frandsen
Erika Franey
Bernadette Franjoine
Gloria Frank
Linnea Frank
Margaret Frank
Rachel Frank
Sharon Frank
Cathy Franklin
Michele Franlesla
Austin Frantell
Gary Franz
Sister Michael Marie Franzak
Sister Madeline Franze
Deacon Roger Fraser
Lauren Fraser
Pat Fraser
Forest Frasieur

Alan Frasz
Janine Frattaroli
Cinzia Fratucello
NADINE FRAULINI
Tom Fray
Cristina Frazier
Susan Frazier
Paul Frechette SM
Ed Frederick
Patricia Fredericks
Rosemarie Fredericks
Stephen Fredman
V Fredrick
Laura Free
Marv Free
Gary Freeberg
Patricia Freeburg
Mark Freedman
Brian Freel
Charlie Freel
Angela Freem
Lynn Freeman
Lynn Freeman
Maureen Freeman
Richard Freeman
Sylvia Freeman
Patrick Freese
Elizabrth Freese-Watkins
Jerry Freewalt
Sister Rose D. Fregin
Kathleen Frei
Suzanne Freiberg
Karin Freihammer
Frances Freitas
Loren Freking
Heidi French
Joy French
Mr. Kenneth Frerinc
Mrs. Rosemary Frerinc
William Fresske
William Fresske
Rebecca Frett
Lori Freudenberg
Margaret Freund
Marion Freund
Elisabeth Frey
noel frey
Sister Noel Frey Frey
Annette Frey, S.C.
Mary J Freymiller
Viuien Frgneroa
Fr Rick Friebel
Debra Joy Friedenberg
Michaeleen Frieders
Janet Friedman
Susan Friedman
Sr. Mary Friel
Sr. Michaleen Frienders
William Frigo
Judith Frikker
Michele Frisella
Karen Frishkoff
JOAN FRISZ
Al Fritsch
Caitlin Fritz
Jeraldine Fritz
Marlene Fritz
Robin Frkal
Sr. Marilyn Frochlich
John Froehlieh
Mary Frohlich
Mary Fromknecht
Margaret Fronckiewicz
Sr. Cathy Frosr
Christine Frost
Veronica Frost
Doug Frugì©
Roman Fruth
Barbara Fry
John Fry
Mr. and Mrs. Manfred Fuchs
Laura Fuderer
Jean Fudge
M Fuer
Elizabeth Fugere
Margaret Fuhr
Sister Margaret Fuhr OSF
Janet Fulgenzi
Patricia Fulgirri
Jerrie Fullenweider
Anthony Fuller
Barbara Fuller

chris fuller
christina fuller
Lara Fuller
Nancy Fuller
patricia fuller
Samuel Fuller
Kathy Fullerton
Janice Fulmer
Karen Fultz
Laura Fultz
Robert Funaro
Debrah Funfsinn
Nicholas Funk
Sr. Kuptos Funn
David Furbish
Sarah Fusarelli
Anthony Fusco
Bonny Fusco
Nicole Fusco
Socorro Fuster
Mike Fynboh
Gretchen G
Shana G
steve g
Margaret Gaannon
Patricia Gabb
Mary Gabel
Anne Gaber
James Gable
Jim Gable
Kathrine Gabriel
Tierney Gabriel
joanna gabrieli
Vanessa Gabrielle
Timothy Gabrielli
Martha Gach
Joyce Gadoua
Joyce Gadoua, CSJ
Mary Ellen Gadski
Alan Gaebel
Mrs. Jean Gaes
Sr. Anna M. Gaety
Bernadette Gaffney
Br. James Gaffney
Francis Gaffney
Joanne Gaffney
Kathleen Gaffney
Michael Gaffney
Sean Gaffney
Michael Gaffry
Natalie Gaggini
Mary Gagliano
Anne Gagnon
Claudette Gagnon
Sr. Pat Gahi
Hahm Gahng
Alexandra Gaines
Arthur Gajewski
Laurine A. Gajowski
Gayle Galdames
Franie Galdamez
Mary Anne Galehouse
Kenneth Galica
Clare Galicia
Delgadina Galindo
Maria Galindo
Sandra Galindo
Sisana Galindo
Sr. Dorothy Gall
Sr. Colleen Gallager
Elizabeth Gallagher
Emma Gallagher
F. A. Gallagher
Joan Gallagher
Joanne Gallagher
mary Gallagher
MARY BETH GALLAGHER
Melinda Gallagher
Patrick Gallagher
Sister Jean Gallagher

Sister Kathleen Gallagher
Suzanne Gallagher
kristin gallanosa
Mary Gallant
Frances Gallante
Angela Gallegos
Sr. Jen Galler
Barbara Gallicano
Kathryn Gallicchio
dianne galliher
Luana Gallo
Mark Gallo
Melissa Gallo
Patricia Gallogly
Brenda Galloy
James Gallup
Jean Galofaro
Maritza Galorza
Camerina Galvan
Maggie Galvan
Kelly Galvin
Marueen Galvin
Alyson Gamble
Lindsay Gamino
Karen Ganafor
Fran Gangloff
Eileen Gannon
Joan Gannon
Madonna (Meg) Gannon
Roberta Gannon
Toni Ganshert
Rose Gansle
Heather Ganz
Kathleen Garast
Barbara Garber
Richard Garber
Michael Garcher
Araceli Garcia
Catalina Garcia
Imelda Garcia
Jacqueline Garcia
Jorge Garcia
Juan Garcia
Kelli Garcia
Manny Garcia
Maria Garcia
Patricia Garcia
Rolando Garcia
Rosa Garcia
Vickie Garcia
Tracy Garcia-LaVigne
Ben F. Garcia, Ph.D.-ABD
Eliozabeth Garciano
Elizabeth Garciano
Joseph Gardella
MaryMartha Gardiner
Kathleen Gardipee
Barbara Gardner
Gary Gardner
Janet Gardner
Joanna Gardner
Louise Gardner
Mary Ann Garisto
Barbara Garland
Joy Garland
William Garlette
Juanito Garlitos
Frances Garner
Natalie Garner
Mary Garnett
Jaime Garnica
Carmela Garofall
BILL GAROFALO
Cara Lucille Garofalo
Carmela Garofalo
Joe Garofoli
Shelagh Garren
Celeste Garri
Mary Garrigan
James Garrison
Ed Garrity
Sr. Danielle Garst
Gloria Garth
Michael Gartner
Marcella Garus
Esther Garvett
Barbara Garvey
Geri Garvey
Helen Garvey
Sr. Mary Pat Garwin
John Gary
Daniel Garza

Donna Garza
Kelly Garza
Linda Gaska
jamie gaskins
Sharon Gass
Maria Teresa Gaston
Maria Teresa Gaston Witchger
Eve Gatay
Kathryn Gates
Peter Gathje
Nanda Gatley
Nancy Gatliff
Julie Gatti
Cathy Gattuso
Marie Gatza
Karen Gaube
Susan Gauce
Diane P. Gaudet
Paula Gaudet
Sister Jane Gaughan, IHM
Sr. Roseann Gaul
Mike Gaule
Benjamin Gauley
Michael Gaunt
Kelly Gauthier
David Gauthreaux
Wilson Gautreaux
Linda Gauvin
Carol Gavareski
Milba Gavin
Megan Gavrillen
Erin Gay
Alexandra Gaynor
Constance Gaynor
Bernadine Gazda
Barbara Gazdik
MARIE GDOWSKI
Dawn Gear
Edwin Gearhart
Christine Geary
Christine Geary
Dr. Patricia Geary
Ms. Christine M. Gebolys
Sr. Elizabeth Gebolys
Mr. Greg Gebolys
Johanna Gedaka
Mary Gedmin
Gloria Gedrose
Richard Gedrose
Michael Geelan
Jack Gegner
Joann Gehlowg
Jodi Gehr
Gregory Gehred
Dolores Geier
Patricia Geier
Donald Geiger
James geiger
Julie Geiger
Maxine Geiger
Patricia Geis
Nancy Geisendorfer
Diane Geiser
Patricia Geiser
James Geisey
Thomas Geist
Yvonne Gellise
Jean Michel GELMETTI
Mary Genino
Gale Gennaro
Joseph Gense
Edna Jean Gent
Rachel Gentes
Karlene Gentile
Patt Gentile
Barbara Gentry
Clark Gentry
Dawn Geoppinger
Eita Geoppinger
Beverley George
Carol George
Douglas George
Judith George
Kate George
Lois George
Mary George
Sr. Mary George
Sr. Mary Ellen George
Susan George
Thomas George
Al Gephart
Marlene Geppert, O.S.F.

Mary Ger,aom
Sheila Geraghty
Susan Geraghty
V Geraldo
Rita Gerardot
Sr. Rita Gerardot
Diane Gerdeman
Kathryn Geringer
John Gerlach
Anita Germain
Mary Germain
Sr. Mary Germain
Rhonda Germano
Sonia Gernes
Eileen Gerrain
George Alan Gerrard
Forrest Gertin
Lucille Gervase
Jennifer Gervasio
Loretto Gettemeier
LouAnn Getz
Rachel Geuhater
Patricia Geuting
Donna Geyer
Julie Gharios
Ann Marie Ghiloni
Lucy Giacchetti
Nicole Giaccone
Nathaly Gialgo
Diana Giangiacamo
Jon Giangiacamo
Peter Giannini
susie giannoni
Aaron Giard
Thomas Giardino
Bruce Gibb
Catherine Gibbons
jeanne Gibbs
Leah Gibbs
Melissa Gibilaro
Catherine A. Giblin
Dolores Giblin
Margaret Giblin
Ajani Gibson
Arlene Gibson
Kimberly Gibson
Sr. Mary Gibson
Paul Gibson
Robert Gibson
Valerie Gidney
Marie Giedratis-Edgar
Sylvia Giem
Judy Giesen
James Gigliotti
carlotta Gilarde
Mary Gilbart
Douglas Gilbert
Kimberly Gilbert
Paula Gilbert
Janet Gilbert.
Nancy Gilbertz
Jay Gilchrist
MaryAnn Gill
Nancy Gill
Rich Gill
Rosemary Gill
Steve Gillen
Eileen Gilles
Lisa Gilles
William Gilles
Bonnie Gillespie
Francis Gillespie
Thomas Gillespie
Marie Gillich
Marie Gilligan
Anne Gillis
Christopher Gillis
Patricia Gillis
Carita Gillotte
Barbara Gilmetti

jay Gilpatrick
MarÌ_a Elena Giner
John Ginley
Ms. Jacqueline Ginter
mike ginter
Gerald R Gioglio
Roman Gioglio
Alice Marie Giordano
Louis Giordano
michele giordano
Michael Giorgi
Peter Giorsetti
D Giovinetto
Wanda Giraldi
Maria Girsch
Gragfe Gissil
Sr. Elise Gittnch
Marcella Gittrich
Lillian Gitzen
Paola Giuli
Matty Giuliano
Karen Gladbach
Deborah Glascoe
Barbara Glasener
Jeff Glaser
Jacqueline Glass
Mark Glauth
Andrew Gleason
MaryAnn Gleason
David Gleave
john glebs
Mary Glen
Patricia Glen
Kathleen Glenn
Lisa Glenn
Meghan Glenn
Thomas Glennon
Matthew Gliatto
Cynthia Glick
Patricia Glinka
Susan-Rae Glinka
Sandi Glorfield
Ms. Frances Gloster
Kathleen Glover
Barbara Glowacki
mary glowaski
Fran Glowinski
Daniel Glynn
Doreen Glynn
Corinne Gmuer
Barbara Gnecco
lisa gobar
Brittni Gochnauer
Linda Gockel
marilyn gockowski
Donal Godfrey, S.J.
Refugio Godinez
jill godmilow
Sister Patricia Godri
Raymond Godwin
Elizabeth Goebel
JoAnne Goecke
Sr. Laura Goeckner
Sr. Mary M. Goeckner
Eleanor Goekler, smic
Jean Goering
Celine Goessl
Lascinda Goetschius
ANNA GOETZ
Pat Goff
Catherine Goggins
Sr. Paula Gohs
Tracy Goings
Rosemarie Goins
Paul Golab
Suzanne Golas
Grace Golata
Jill Goldan
Paul Golden
Robert Golden
Doris Goldman
Maryellen Goldman
Steve Goldman
Susan Goldman
mary goldner
Madeline Goldpaint
Stephanie Goldson
Kathy Golic
Deborah Golik
Daniel Golonka
Megan Golonka
Margaret Golub

Audrey Gomes
Joseph Gomes
Armando Gomez
Elizabeth Gomez
Isabel Gomez
Zoila Gomez
Theresa Goncalves
John Joseph Gonchar
christopher gonda
Mary Ellen Gondeck
Sr. Mary Ellen Gondeck
Mary Gondreau
Karlee Gong
Trish Gonget
Jaime Gonsalez
Sr. Carol Gonsoilin
Jeannette Gonthier
Lilianna Gonzale
Alex Gonzales
Alexandra Gonzales
Betsy Gonzales
Brenda Gonzales
Christian Gonzales
Jamie Gonzales
Maureen Gonzales
michele gonzales
Uriel Gonzales
Zenaida Gonzales
Aline Gonzalez
Angelina Gonzalez
Carol Gonzalez
Mrs. Catherine Gonzalez
Dr. James Gonzalez
Dulce Gonzalez
Maria Gonzalez
Matthew Gonzalez
Patrick Gonzalez
Sister Irma Gonzalez
Yazmin Gonzalez
Zenadia Gonzalez
Zenadia Gonzalez
Dana Good
Eileen Good
Sister Eileen Good
Mrs. Susan Goodenberger
William D. Goodenberger
John Goodfriend
Sr. Jacqueline Goodin
Sharon Goodremote
Cathy Goodrich
Christine Goodrich
Harlene Goodrich
Sr. Barbara Goodridge
Sr. Rose Goodrow
Elizabeth Goodwin
Evelyn Goodwin
Donald Goppert
Rebecca Gordon
Robert Gordon
Dorian Gorevin
Matt Gorevin
Sandra Gorger
Barbara Gorham
Brock Gorman
Christa Gorman
John Gorman
Julia Gorman
Mary Gorman
melissa gorman
Patrick Gorman
Robert Gorman
Susan Gormely
Kathleen Gormley
Paul Gorski
Sister Fran Gorsuch
andre Gorzell
Sr. LaDonna Gosche
Mary Clare Gosse
Karen Gosser
Marilyn Gottemoeller
Johannes Gottwald
John Gouger
Ave Gould
meg gould
Joan Goulden
Bill Goulding
Mary Gourdoux
Helen Gourlay
Russell Governale
Jill Governer
D Gowez
Donna Goyette

Sr. Jean Goyette
Jeanne Goyette
Alma Gozman
Nadine Grabania
Sr. Marilla Grabinski
Sister Marillac Grabinski
Verda Grabinski
Sister Grabowski
mary grace
Molly Grace
Luis Gracida
Sr. Mirian Teresa Graczak
Leslie Grady
Mikey Grady
Patrick Grady
Susan Graeper
Marilyn Graf
Margaret Grafas
Janet Graffer
Anne Marie Graham
Jacqueline Graham
Sylvia Graham
Sister Donna Graham, OSF
Liligina Graldo
Sr. Marylin Gramas
DM Graminski
Evelyn Granahan
Sr. Geraldine Grandpre
Sr. Geraldine Grandpre
Christine Granger
Denise Granger
Mark Granito
Christa Grant
Jim Grant
Joe Grant
Karen Grant
Kathy Grant
Linda Grant
Maria Grant
Renee Grant
Willa Grant
Hunter Granzin
Frank Grass
John and Marlene Grassi
Linda Grassia
Eugwnie Grasso
Leo Grasso
Terri Grasso
Marya Grathwohl
Kara Graul
Sr. Kathleen Grave
Laura Graviss
Andrew Gray
Ann Gray
Annie Grayson
Anita Grazer
Walter Grazer
Johanna Grdaka
Giulio and Grecchi
Victor Greeley
Adam Green
Fiona Green
Jill Green
Jim Green
Kim Green
Laura Green
Marita Green
Michael Green
Kathleen Greenaway
Marc greenberg
Maria Victoria Greenberg
DANA GREENE
David Greene
Georgia Greene
JOYCE Greene GREENE
Sr. Jeanne M. Greenen
Maryann Greenwald
Helen Greer
Rebecca Greer
Jacqueline Greff

Carmel Gregg
Jan Gregorcich
Debbie Gregorio
Lauryn Gregorio
Michael Gregorio
Carol Gregory
Connie Gregory
Elizabeth Gregory
Evelyn Gregory
Virginia Gregory Gregory
Carolita Greiner
Beth Greisl
Claudia Grenough
mary grenough
Liz Gress
Doris Grewe
Anne Grey
Noel Grey
Dawn Grib
Kathleen Gribble
James Grieman
George Griener
Mollie Grierson
Terri Grierson
Patricia Gries
Joann Griesser
kathy grieves
Colleen Griffin
Linda Griffin
Maureen Griffin
Michael Griffin
Philomena Griffin
Shannon Griffin
Megan Griffin-Shelley
Kamala Griffith
Mary Jane Griffth
Antonio Grijalva
Dorothy Grillo
Michael Grillot
Kevin Grimes
Nicole Grimm
Peter Grimm
JOAN GRIPSHOVER
Andrew Griswold
Carole Griswold
Jacqueline Griswold
Mary Pat Griswold
Frances Gritte
Sr. Sharon Groetich
Suzanne Grogan
Daniela Grogro
Kathleen Groh
michael grome
David Grondin
Valerie Grondin
Mrs. Gaynell Gronin
Betsy Groome
Elisabeth Groot
John D. Groppe
Harriet Grose
Kathy Grosh
Bill Gross
David Gross
Geoffrey Gross
Joseph Gross
Ken Gross
Michael Gross
Paul Gross
Sister Felicia Gross
Terry Gross
Tom Gross Shader
Doreen Ann Elliott Grosso
Ronald Grosso
Sally Grosso
Kris Grout
Erin Grover
Bill Groves
Patricia Groves
Julianne Gruber
John Grucelski
Sara Grummer-Strawn
Louise Grundish
Catherine Grunenfelder
Peter Gruning
Anne Grupe
Ed Gruver
Peter Grvning
Anne Grycz
Jeff Grzybowski
James Guastavino
Christina Gubicza
Stacy Gubser

Judith Gucker
Craig Guenther
Diane Guerette
JEANNE GUERIN
Wilfred Guerin
Sara Guernsey
Christina Guerra
Mary Dolores Guerra
Jennifer Guerra-Gonzales
H. Guh
Patricia Guiao
Emily Guidos
Patricia Guillen
Paige Guillory
Catherine Guinan
Marjorie Guingona
Lenore Guirreri
Barbara Gulino
Anne Gull
Elizabeth Gullen
Robert Gunderson
Gretchen Gundrum
Mary Cecile Gunelson
Susan Gunn
Kathleen Gunning
Maureen Gunning
Joanne Gunther
Joy Gunza
ANTHONY GURA
Heather Gurdon
Elizabeth Guss
Paul Gustab
Alie Patricia Gustavson
Sr. Marie Guston
St. John Gutbezahl
Taiga Guterres
Rubria Guterrez
Edilia Gutierrez
Luis Gutierrez
mireya gutierrez
mireya gutierrez
Yolanda Z. Gutierrez
Bernadine Gutowski
Shawn Guy
Erin Guynup
Harriet Guyott
cecilia guzman
Macrina Guzman
Maria Guzman
Rebecca Guzman
Margaret Guzzardo
Mary Gwil
Sister Janet Gwinn
Maureen Gwynn
Julia H.
Sr. Anne Haaner
Nancy Haarer
Susan Haarman
Linda Haas
Timothy Haas
Kristof Haavik
Kay Haberlach
Rebecca Habermann
Steve Hacala
Sr. Laura Hacbenberg
Malyn Hack
Laura Hackenberg
Teresa Hadro
William Hadwen
Barbara Hafer
Marcia Hafner
Christine Haftl
Robert Hagan
Ellen Hagar
Pat Hagar
Nancy Hageanbach
Barbara Hagedorn
Kathryn Hagel
Mary Hagele
Linda Hageman
Sr. Joan Hagen
Joyceann Hagen
Nancy Hagenbach
Jennifer Hagens
Kathleen Hagerty
Mike Hagerty
Mrs. Mary Haggard
Dennis Haggerty
William Haggerty
John Hagileiram
Martha Hahn
Teresa Hahn

Julie Hahnenberg
Sr. Mary Jane Hahner
Sister Cecelia Haier
Sandra Haigh
Charles Hail
Anne Haines
Sara Haines
Caroline Hair
Elizabeth Hakel
Hille'Haker
Mrs. Linda Hakn
Sam Halabian
Teresa Haldane
Kristin Haldeman
Mary Hale
Catherine Hall
Cynthia Hall
Dinorah Hall
Elizabeth Hall
Heather Hall
Ian Hall
Lacey Hall
Linda Hall
Maidi Hall
Marie Hall
Thane Hall
Tim Hall
K Halla
Audrey Hallahan
Mari Halley
Anne Marie Hallinan
Kati-Rosa Hallman
Catherine Hallmar
Anne Halloin
Cindy Halloran
Patricia Hallowell
Donald Hallum
B Halpin
Ethan Halpin
Margy Halpin
Celia Halsey
Donna Halsky
Diana Hamann
Susan E. Hames
ann hamill
Louisa Hamill
Con and Chris Hamilton
Diane P Hamilton
Frederick Hamilton
Julie Hamilton
Mary Hamilton
Rebecca Hamilton
Rebekah Hamilton
Susan Hamilton
Mary Beth Hamm
Dennis Hamm SJ
Mary Beth Hamm SSJ
Brenda Hammack
Ronald Hammersley
Carlita Hammes
Lucinda Hammond
Steve Hammond
C Hampton
Jeannie Hamrin
Joe Hanafee
Maureeen Hanahoe
Maureen Hanahoe
George Hanas
Barbara Hanauer
Shannon Hanaway
Diane Hance
Michael Hancock
Sarah Hancock
Susan Handa
Frank Handler
Brianne Haneman
Catherine Hanisits
Diane Hankee
Oanh Hanley
S Kathleen Hanley

Brian Hanlon
Colette Hanlon, S.C.
LINDA HANNA
Yvonne Hanna
Christina Hannon
Sr. Maureen Hanogan
Jean Hanover
John Hanrahan
Doranne Hans
Kerry Hansell
Anne Marie Hansen
BARBARA HANSEN
Cara Scarla Hansen
Diane and Eric Hansen
Hailey Hansen
Jennifer Hansen
Julie Hansen
Marilyn Hansen
Marylou Hansen
Sandra Hansen
Stephen Hansen
Nancy Hansford
claire hanson
Russ Hanson
Walter Hanss
Lydia Hanssen
John Hansy
Marietta Hanus
Charles Happel
Nicole Harada
Virginia Haradon
Sr. Rita Harasuik
Mrs. Linda Hardeland
Melissa Harden
Geralyn Harder
Daniel Hardie
Dr. John Hardin
Nadine Hardin
Bionnie Hardwick, OFS
Ray Hardwick, OFS
barbara hardy
Betsy Hardy
Randy Hardy
Ellen Marie Hare
Patricia Hare
Sr. Margaret Haring
Gamiel Hario
Tobias Harkleroad
Michael Harlan
Anne Harman
Carnnie Harmon
Susan A. Harms, RSM
Mary Harnett
CATHERINE HAROLD
Gerald Harp
Judith Harpenau
Brian Harper
Joan Harper
Rachelle Harper
Rebecca Harpring
Christi Harr
Lois Harr
B Harrington
Barbara Harrington
John(Jack) Harrington
Melissa Harrington
Sister Harrington
Bernadette G Harris
Candice Harris
Debra Harris
Garry Harris
Heather Harris
Linda Harris
Mackenzie harris
Maggie Harris
Maureen Harris
Reggie Harris
Talynn Harris
Joseph J. Harris III
Marie Harrison
Patricia Harrity
Michael Harrod
Paulina Harron
Sr. Margaret Harsing
Alexandra Hart
Carol Hart
Donna Hart
Elizabeth Hart
Judy Hart
Kathryn Hart
Katie Hart
Marilyn Hart

Mary Hart
Sarah Hart
Marita Hartel
Patti Harter
Cathleen Hartge
Jeanne Hartig
John Hartjes
Leo Hartke
Joan Hartlaub
Sr. Joan Hartlaub
Germaine Hartle
Katha Hartley
Donella Hartman
Karen Hartman
Mary Ann Hartman
Mary Louise Hartman
Sr. Michael Marie Hartman
Tim Hartman
Lorraine Hartmann
Philomena Hartnett
Pat Hartsoe
Susanne Hartung
Vonn Hartung
Alan Hartway
Julianne Hartzell
Grace Hartzog
Laura Harvancik
Sr. Patricia Harvat
Bill Harvey
John Harvey
Lynn Harvey
Mary Harvey
Patricia Harvey
Pat Harway
Gloria Haskell
Mary Haskins
Mary Katherine Haskins
Merrdith Hasler
John Hasllower
Mary Hassett
Mary Hassett
Mark Hassman
Megan Hast
Rheanna Hastings
Joan Hastrfiter
Debbie Hatcher
Thomas Hatcherson
Edward Hatfield
Patricia Hathaway
Sandy Hathaway
Ethan Hattendorf
Theresa Hatver
Doug Hatzenbuehler
Mrs. Erin Hauck
Erin Haught
Mary Hausfeld
Joan Hausladen
Sister Janis Haustein
Sharon Havelak
Virginia Haver
Josephine Haway
John k. Hawes
Carol Hawitt
Patricia Hawkes
Sandra Hawkins
Fr. Greg Hawkins, SJ
Peter Hawxhurst
Sr. Clara Hayashi
Ann Hayden
LuAnn Haydon
Allison Hayes
Ann Hayes
James Hayes
Mary Hayes
MJ Hayes
Norine Hayes
Patricia Hayes
Sister John Mary Hayes
Stephen Hayes
Sue Hayes
Richard Haymes
Kim Haynes
michael haynes
Patrick Haynes
Pauline Haynes
Lorna Hays
Sr. Mary Joy Haywood
Alison Hazel
Pacla Hdee
John Heagle
Sandy Heak
Caitlin Healey

Bob Healy
Conor Healy
Gloria Healy
Lyle Healy
Margaret Healy
Michael Healy
Michele. Healy Healy
Sister Kathleen Healy, PBVM Healy
Elsie Heaney
Ellen aka Sister M. Antonio Heaphy
Christine Hearn
Kathleen Hearn
Karen Heath
Mark Heath
Patricia Heath
Kathleen Hebbeler
Michael Hebbeler
Sarah Hebbeler
Gloria Hebert
Mary Hebert
Mary Anne Hebert
Michelle Heck
Mary Hecker
Robert-Ann Hecker
John Heckler
Marguerite Heckscher
Dee Hecve
donna hedrick
Judy Hedrick
Ann Heduan
Elizabeth Heese
Luella Heese
Peni Heffernan
Ryan Heffernan
Carol Heffner
Jean E. Heffrer
Pat HEFFRON-Cartwright
Will Heflin
Catherine Hegedus
Joe Hegerich
Rehba Heggs
Sr. Bonnie Heh
Ann Hehl
Janet Heiar
Steven Heid
Jolene Heiden
Elizabeth Heidler
John Heigl
Neil Heikkila
Nancy Heil
James Heileman
Marianne Heileman
Irene Heim
Sarah Heiman
Eloise Heimann
Jeanette Heindl
John Heinen
Valerie Heinonen
Dixie Heinrich
Murray Heinrich
Peggy Prevoznik Heins
Lisa Heinz
Rita Heires
Mary Heist
John Heizelman
Diane Hejna
SM Angelette Helak
Jeanette Held
maurice held
David Heller
James Heller
Jessica Heller
Juliann Heller
Mark Heller
suzanne heller-culver
Mary Hellmann
Faye Helmerson
Mary Helmsing
Pierre Helou
B Helsey

carol hemesath
Lee Hemminger
Lawrence Hendel
Marilyn Henderson
Mary K Henderson
Sister Mary Lou Henderson m
Christine Hendrick
James Hendrick
Maureen Hendricks
Joan Henehan
Sr. Joan Henehan
Sister Joan Henehan
William Henggeler
Laura Henion
Dolores Henke
James Henke
Ann Frances Henley
Lalande Hennen
Sr. Mary Loris Hennerl
Linds Hennesey
Doug Hennessy
Shirley Hennessy
Stacy Hennessy
Janice Henniger
Cynthia Henrich
Nicole Henrichs
Carina Henry
Cassie Henry
Deborah Henry
Harold Henry
Jeannettel A. Henry
Laura Henry
Mrs. Mary Henry
Mary E Henry
MARY JANE HENRY
Patrick Henry
Sister Rose Marie Henschke
Robert Hensman
Ms. Jenifer Henson
Lana Henson
Theresa Henson
Catherine Hentges
Jackie Hepinstall
Cullan Herald-Evans
Sr. Maralyn Herber
jennifer herbert-coste
Leanne Herda
Steve Herder
Amy Hereford
Mike Herhold
karen heringer
Margaret Heringer
Michael Heringer
Max and Mary Herink
Jennifer Herkel
Michael Herlihy
Christie Herman
Ruth Herman
William Herman
Andrew Hermann
Sr. Carole Hermann
Greg Hermann
Mia Hermann
Sister Helen Hermann
Livio Hermans
Rachel Hermes
Beatrice Hernandez
Bob Hernandez
Debra Hernandez
James Hernandez
Juan Hernandez
NANCY HERNANDEZ
Yliana Hernandez
Sandra Hernandez Pagan
Benjamin Herold
lynette herold
Gail Herr
Marta Herrenro
Jose de Jesus Herrera, Jr.
Mr. Laura Herrero
Carren Herring
Jennifer herrington
Carole Herrion
Steve Herro
Linda Herscher
Sister Edna Hersinger
Angela Herstek-Zongilla
Kurt Hertrich
Sr. Patricia Hespelern
Amy Hess
Doriel Hess
Jason Hess

Jeanne Hess
Larry Hess
Mary Hess
Nancy Hess
Rita Hess
Rose Hess
Wayne Hess
Vicki Hess-Smith
Laura Hessel
Barbara Hessler
Donald Hester
Heather Hester
Lori Hester
Maria Hester
Nathan Hester
Susan Hetebrueg
Michelle Hetherington
Deirdre Hetzler
Daniel Heuer
Elizabeth Heule
Mary Heverin
Allison Hewitt
Robert Heyer
Mary Heyser
Leslie Hickcox
Kevin Hickey
Pamela Hickey
Patrick Hickey
Sr. Maureen Hickey
Kelly Hickman
Susan Hickman
AnnMarie Hicks
David Hicks
Esther Suzanne Hicks
Frances Hicks
Sr. Helene Hicks
Janine Hicks
Kristen Hicks
Kathleen Hidalgo
Richard Hiers
Richard Hiers
JM Hiesberger
Wayne Higdon
Elizabeth Higgins
John Higgins
Kathleen Higgins
Mary Higgins
Mary Ellen Higgins
Mary Etta Higgins
Tim Higgins
Dianna Higgs
Rachel Higuera
Christine Hilbert
Virginia Hildebrand
Mary Louise HIldebrandt
Don Hildebrant
Mary F Hildenberger
Jeanne Hildenbrand
Alice Hilerta
Mary Ann Hilgeman
Barbara Hill
Chala Hill
ella hill
Jack Hill
Jean Hill
Katherine Hill
Kelly Hill
Maria Hill
Mary Ann Hill
Pauline Hill
Suzanne Hill
Valerie Hill
Jeannine Hill Fletcher
Bev Hillis
Mary Ann Hills
Anne Hilofsky
Stephen Hilton
Lucy Himelreich
Dorothy Himes
Judy Hinch
Allison Hinde
Silvia Hinds
Shelley Hines
HANS HINTEREGGER
Patty Hinton
Susan Oldberg Hinton
Michon Hinz
Lisa Hirsch
Katie Hirschboeck
ursula hirschmann
Kenn Hitchcock
Anne Hitchner

monique hitzman
Jim Hix
Liz Hjort
Mary Ann Ho
Kathleen Hoae
April Hoak
Minh Hoang
Victoria Hoang
Michael Hoban
Elise Hobbs
Sue Hobig
Jo Hobson
Sr. Christine Hock
Richard Hockman, CSC
Jennifer Hodges
Joan Hoeborn
Marianne Hoekzema
Kenneth Hoel
Andrew Hoelperl
Carol Hoelscher
Tracey Hoelzle
Robin Hoeppner
Ruth Hoerig
Amy Hoey
Sharon Hoey
Philomena Hoeyph
Sam Hofacker
Marilynn Hofer
Sr. Nancy Hoff
Aimee Hoffman
Mrs. Char Hoffman
Erin Hoffman
George Hoffman
Jacquelyn Hoffman
Leann Hoffman
Mary Hoffman
Michelle Hoffman
Nancy Hoffman
John Hoffmann
Mary Hoffmann
Helen Hofmann
Judith Hofmann
Laura Hofstrand
Alice Hogan
Dylan Hogan
Ellen Hogan
John Hogan
Sr. Marie Hogan
Thomas Hogan
Dale Hoglund
Sarah Hohlbein
Susan Hoin
Theresa Hoke
Jill Holbroom
Eric Holcomb
Denise Holden
Sister Carol Ann Holder
Ann Holdgruen
Mary Holdman
Doreen Holland
Karen Holland
Matthew Holland
Alexander Holland-Burman
Marilyn Hollander
Eileen Hollen
Ruth Hollen
Jeffrey Hollender
Sister Elizabeth Holler
Phyllis Holliday
Rose Holliday
Susan Hollis
Donna Hollis, OFS
LunaSolee' Holloway
Stephanie Holloway
Julie Holmel
Harlan Holmes
Mary Holmes
Ruby Holmes
Ruth Holmes
Steve Holmes

Mary Ellen Holohan
Donald Holt
Lisa Holt-Taylor
Rose Mary Holter
Sr. M. Lucille Holtz
Mary Ann Holtz
brian holuj
Cheryl Holyk
Ann Holzmer
Theresa Homan
Br. Ken Homan, SJ
Kay Homer
E Homles
Patrick Honan
Marion Honors
Kathleen Hook
renate hooper
Agnes Hoormann
Rose Hoover
Cel Hope
Daniel Hopeus
Betty Hopf
Bill Hopkins
James Hopkins
Jean Hopkins
Jean Hopman
Merideth Hoppe
Tracey Horan
Charles Horejsi
Barbara Jean Horell
Caroline Horgan
Cyndi Horn
Ellen Horn
Barbara Hornbeek
Eleanor Horneman
Lisa Horner-Daluz
Joan Hornick
Sister Mary Ann Hornick
Patrick Hornschemeier
John Hornyak
Gigi Horsfield
richard horsley
Janelle Horstman
Norm Horstman
Allyn Horton
richard horton
Dee Horuath
Daniel Horvath
David Horvath
Sharon Horvath
John Hosek
sharon hosek
Sheri Hosek
Adam Hoskins
Laura Hoskins
Nicholas Hosmer
Maureen Hotaling
Stephanie Hotard
Matt Hotchkiss
Maureen Hotchkiss
Sr. Maria Hotop
Ellen Hotz
Mr. John Houek
Maureen Houlihan
Rita Houlihan
Leon Houston II
Jennifer Hout
Catherine Houtakker
Christina Hover
Derek Hover
Susan Howaed
Jenny Howard
Laura Howard
Paula Howard
Michael Howden
Elisabeth Howe
Bernadette Howell
Patricia Howell
Abigail Howes
Deanna Howes
Anthony Howley
Ethel Howley
Sister Ethel Howley
Sandra Hoy
Linda Hoye
Barbara Hoyle
Linda Hoyle
Eugenia Hoyne
Hetter Hrell
Barbara Hromada
Ruth Hruby
Katie Huang

Matthew Hubbard
Valerie Hubbard
John Huber
Marcia Huber
Rod Huber
Judith Hubert
Jeff Huberty
kathleen huberty
Christine Hubly
Madeline Hubly
Mark S Hubly
William G. Hubmann
Michael Huck
Barbara Huckermeyer
Rosemary Hudak
Connolly Huddleston
Charlene Hudon
Mary Oliver Hudon
Adam Hudson
Krysia Hudson
Samantha Hudson
Tara Hudson
Carla Huebner
Marilyn Huegerich
Michael Huether
Lorraine Huffaker
Debra Huffman
Marie Huffman
Mary Hufford
Glenn Hufnagel
Elizabeth Hug
James Hug
Angela Hughes
Caroline Hughes
Diane Hughes
Elizabeth Hughes
James Hughes
Kathleen Hughes
Kimberly Hughes
Laurel Hughes
Laurel Hughes
Paul Hughes
Sister Patrice Hughes
Julia Huiskamp
Patricia Huitt
Luisa Huizar

David Hulefeld
TAMARA HULSEY
Brooke Huminski
Mary hummel
Stephen Humphrey
Sr. Deborah Humphreys
Annie Hundley
Ann Hungerman
Elizabeth Hunley
Patricia Hunn
Judith Hunnewinkel
Dietgard Hunsley
Douglas Hunt
linda hunt
Lori Hunt
Mary E Hunt
Richard Hunt
Rita Hunt
Anthony Hunter
Sydney Hunter
William Hunter
Jude Huntz
James Huntzicker
Celeste Hupert
Kathleen M Hurd
Scott Hurd
Elizabeth Hurlbut
Eileen Hurley
Sr. Frances Hurley
Karen Hurley
Katie Hurley
Sr. Mary P. Hurley
Sr. Maureen Hurley
Mark Hurmence
Paul Hursh
Maryan Husamudeen
Leroy Hushak
Chuck Hussung
Faith Hustak
Elsie Hutchens
Sr. Susan Hutchens
David Hutchins
Mary Beth Hutchison
Laura Hutkins
Adriana Huyer
Juyoung Hway

mary Hydro
Mary David Hydro
Antoinette Hyland
Elisabeth Hyleck
Christine Hyly
Tucia Hynes
Jae w Hyun
Jaewan Hyun
Philip J. Hyun
Joanny Iaccino
Christine J. Iacobacci
Stanley Ianieri
Ricki Iannitti
Patrick Iannuccilli
janice iannucelli
Rev. Alice Iaquinta
Jennifer Ibach
Frances C Ibarley
Ana Ibarra
Corinne ÌÉgren-Barnes
Susan Ifland
Brian Igel
Mary Igo
Charlene Ihmoda
Ms. Noel Ilkow
RubÌ©n Ì_lvarez
Michel imbongo
Sr. Kathleen Imbruno
sue imhoff
Sue Ann Imhoff
Sr. Marie Immaculee Dana
Sister Ann Impink
Carole Infante
Roger Ingersoll
John Inglis
Sophie Ingraham
Maria Ingunzer
Kristin Inman
Rose Innes
Aurora Inoue
Isabelle Inoue
Tomas Insua
AURORA INSURRIAGA
PAT INTLEKOFER
Joanne Inzano
Jacqueline Ioannides
Mrs. Darcelle Ioli
Don Ioli
Peter Iorio
Teresa Iovino
Mary Jo Iozzio
Maria Ippolito
manuel iriarte
Sr. Anne Irose
PAT IRR
Marylyn Irrgang
Dott Irvab
Deborah Isaacson
Harold Isbell
Carole Iseli
Anne Iskandar
Reda Iskawdal
Lenore Isleib
Susan Israel
Ernesto Iturralde
Christopher Ives
Shrikant Iyer
Rhona J Lewis
Margaret Jablonski
Mark Jablonski
Sr. Leanne Jablonski FMI, PhD
Sr. Concetta Jabo
Brent Jacinto
Marives Jacinto
Kathleen Jack
Peggy Jackelen M
Lynn Jacklevich
Eric Jackman
Dorothy Anne Jackson
Sr. Elizabeth Jackson

Jennifer Jackson
Karen Jackson
Kim Jackson
Linda Jackson
Mark Jackson
Mary Anne Jackson
Richard Jackson
JOSEPH JACOBI
Carol Jacobs
Kayla Jacobs
Laura Jacobs
Richard Jacobs
Renee Jacobs Grauer
Eric Paul Jacobsen
Gail Jacobsen
Helen Jacobson
Jane Jacobson
Margaret Jacobson
Paul Jacobson
Paul Jacoby
Anne Jadwin
Ms. Colleen Jaeger
Mike Jaeger
Martha Jaegers
Calvin Jager
Vanda Jaggard
Dorothy Jaicks
Gonzalo Jaimes
A. Jakes
Michele Jakoboski
Richard Jakubec
Cynthia Jama Baxter
Edna Jamati
Ami Jambusaria
Cathy James
Christina James
David James
Harlan James
Harriet James
Polly Ann James
Robert James
Vincent James
Margarita Jamias
Patricia Jamison
Amanda Jamnicky
nancy jamroz
Barb Janavaris
Martha Jane
Lynn Janik
Sr. Suzanne Janis
Susan Janke
Robert Jann
Marie Janousek
Mary Lucille Janowiak
Lawrence Janowski
Marietta Jansen
Jo Ann Jansing
Sr. Marie Janson
Payton Janson
Mike Janssen
Norma Janssen
Mary Janulis
Amy Janusz
Joan Janusz
Kathleene Jara
wendie jara
Roberto Jaramillo
angela jarboe
Karen Jarboe
MARGARET JAROS
Sr. Marge Jaros
Mary Jarrett
Kimberly Jarvis
Rita Jaskowitz
Juana Jasso
Stephen Jasso
Bette Ann Jaster
Phyllis Jaszkowiak
Linda Javasl
Susan Javorek
Joan Jaworski
Richard Jaworski
Christina Jay
Michael Jaycox
Jennifer Jeck
Janet Jeffers
Kathleen Jeffers
Patricia Jegik
Christine Jelinek
Patrick Jendraszak
Mrs. Lyn Jendrysik
Mrs. Martha P. Jendrysik

Mr. Ronald J. Jendrysik
Rita Jendrzejewski
Joseph Jenen
Constance Jenkins
Jane Jenkins
Jeanette Jenkins
Jeffrey Jenkins
Rebecca Jenkins
Rose Jenkins
virginia jenkins
Tom Jenne
Caitlin Jennings
Gail Jennings
Jean Jennings
Joan Jennings
marty jennings
Virginia Jennings
Mary Jenny
Susan Jenny
Erin Jenson
Frances Jenson
Judith Jeon-Chapman
Harriet Jernquist
Elsa Jeronimo
mary ann jeselson
steve jeselson
Sr. Adeline Jeshwick
Maureen Jessnik
David Jesson
Carlos Jesurun
Mary Ellen Jeuctt
Louise Jewett
Jack Jezreel
Marie Louise Jilk
Jazmin Jimenez
Martha Jimenez
Merita Jimenez
Norma Jimenz
sister Bernadette Jimkoski
Paulissa Jirik
Paulissa Jirik
Richard jiru
Maria Jivanco
Jo
Sister Rose Jochmann
Madonna Jodlowski
Joyce Joecken
Michael Joerger
Carol Johannes
Jamie Johannsen
Mary Johantgen
Susan Joherz
Sylvester John
Ted and Mary John
Bryan Johns
Kenneth Johns
Justin Johnsen
Amy Johnson
Carl Johnson
Claudia Johnson
Coiley Johnson
Craig Johnson
Donna Johnson
Elaine Johnson
Elizabeth Johnson
Emily Johnson
Gary Johnson
Gayle Johnson
GeriAnn Johnson
Gina Johnson
Jean Johnson
Jill Johnson
Josie Johnson
Karen Johnson
Sr. Kathleen Johnson
Kathryn Johnson
Kathy Johnson
Lee Johnson
Lorna Johnson
Louise Johnson
Margaret Johnson
Sr. Maria Anne Johnson
Marjorie Johnson
Mark Johnson
Mary Johnson
Michael Johnson
Patricia Johnson
Paula Johnson
Renee Johnson
Richard Johnson
Ruth Johnson
Sister Joanne Johnson

Denise Johnston
Mary Johnston
Timothy Johnston
Amber Johnstone
Edward Johnstone
Deacon Scott Joiner
Sr. Colette Jokerst
Janice Jolin
Mary Jolley
Caitlin Jolly
John Jolly
Alma Jones
Anita Jones
Blanche Jones
Cecilia Jones
Charlene Jones
Christopher Jones
Dr. Virginia Jones
Edward Jones
Mrs. Evelyn Jones
frances jones
Grace Jones
Harry jones
Jane Jones
Jennifer Jones
Jerri Jones
joan jones
Julie Jones
Leroy Jones
Mary Jones
Meredith Jones
Sr. Mila L. Jones
Patricia Jones
Paul Jones
Peter Jones
Sarah Jones
Sean Jones
Ellen Jordan
Iris Jordan
Joanne Jordan
Kenneth Jordan
Cheryl Jordan-Aguilera
Deidre Jordy
Dr. Andrew Joseph
ava joseph
K Joseph
Michelle Joseph
Sarah Joseph
Suzanne Joseph
Doreen Josephs
Kathy Joslin
Marc Josloff
carol jost
Kelly Joy
Mary Ann Joy
Eleanor joyce
Kate Joyce
Marie Joyce
Marion Joyce
Nicola Joyce
charllesetta Joyce Greene
Martina Juarez
Mr. Critehell Judd
Elizabeth Judd
Mrs. Karen Judd
Edward Judge
Judith Judith
Sr. Jean Julians
Juliana Julich
Bishop Julie
Anita Jung
Aaron Jungbluth
Angie Jungbluth
Catherine Junghans
Marisa Jurczyk
Steven Jurecki
Andrea Jurewicz
eileen juric
Margaret Jusiel
Shirley Justin-Wolff

Jenni Justus
DOLORES K
Karen K
William K
Yoel K.F.
Don Kaag
Annette Kaba
Susan Kachel
George Kacouris
Ellen Kaczmarek
Nancy Kaczmarek
e kadera
Sr. Pauline Kadilak
Bernie Kaeferlein
Kathleen Kaelin
Pamela Kafton
Maybelle Kagy
Joyce Kahle
Jeanne Kaidy
Kenneth Kaiel
Linda Kaiel
Bruce Kain
Dick Kain
Kathleen Kaiser
Norise Kaiser
Richard Kaiser
Sr. Kathleen Kaisin
Jo Ann Kalb
Sr. Katherine Kalb
Ananda Kalil
Arlene Kalin
Shirley Kalina
Laura Kalinoff
Millie Kaliss
Tommy Kallgren
marlene Kallstrom
Molly Kalmus
Dennis Kalob
Maria Kalpidou
James Kambeitz
Phil Kambeitz
Mary Kambic
Mary Kaminski
Annette Kaminsky
Joe Kamis
Joseph Kamis
Kathleen Kammer
Paula Kampf
Catherine Kamphaus
Sr. Kampwenith
Mischa Kandinsky
Sr. Anna Marie Kane
Mrs. Annetta Kane
Annette Kane
Brian Kane
Carolyn Kane
Joan Kane
Kevin Kane
Marie Kane
Pat Kane
Richard Kane
Rita Kane
Sean Kane
Virginia Kane
Kathleen Kanet
Kathleen Kanouse
Kristine Kansa
Anne Kantor
Mary Jane Kanyok
Jordan Kapitanoff
Carol Kaplan
Carol Kapolka
Howard Kapp III
Sospeter Karan
Alida Karas
Marilyn Karas
Laura Karasinski
Timothy Karcz
Elizabeth Karczynski
Ron Kardos
Mike Karels
Kevin Karl
Nicole Karlins
Joanne Karrean
Bernadette Karwowski
Renate Kasak
Sr. Katherine Kaseesc
Peter Kashatus
John Kashner
GAIL KASSIN
Erin Kast
Edna Kaster

Kornelia Kastler
Theresa Kastner
Joan Katoski
Andrew Katronick
Johnna Kattine
Barbara Kattner
john kattner
Mary Anne Katz
Susan Katz-Whittingham
Dwayne Katzer
Ann Kaufenberg
Virginia Kauffmann
laura kaufman
John Kavalunas
Betty Kavanagh
Eve Kavanagh
Madeline Kavanagh
Margaret Kavanagh
John Kavanaugh
Kathy Kavanaugh
ki kavanaugh
Lawrence Kavanaugh
Melanie Kavanaugh
Liz Kavcak
William Kavula
Sarah Kawsky
Sr. Darlene Kawulok
Jo Kay
Brian Kaye
Aleta Kazadi
George Kazanjian
peg kazda
Elizabeth Keady
Natalie Kean
Rose Marie Kean
Diane Keane
Emily Keane
Rosemary Keane
Curtis Kearney
Daniel Kearney
Daniel Kearney
James Kearney
Janine Kearney
Sr. Mary John Kearney
Theresa Kearney
Debbie Kearns
Roxanne Kearns
Patricia Kearns-Michaelsen
John Keating
Alyce Keaveney
Katherine Keaveney
Vince Keaveney
Eric Keeble
Bob Keefe
George Keefe
Sr. Noralee Keefe
Susan Keefe
Julia Keegan
Mary Keelan
Elaine Keeler
Louise Keeley
John P. Keenan
Kathleen Keenan
Linda Keenan
Marion Keenan
Richard Keenan
Rose Marie keenan
Fr. Joseph P. Keenan. S.T.
Emily Keene
Peggy Keene
Karen Keese
Tom Keevey
Ann Marie Keffer
Janit Kehl
Theresa Kehres
Mahlias Kehrig
Rene Kehrwald
Susan Keim
Andrea Keirstead
Craig Keiser
Kathy Keiser
Liz Keith
Joy Keithline
Steven Keleti
Mary Kelleher
Michele Kellen
Bob Keller
Emily Keller
John Keller
Madeline Keller
Mark Keller
Rebecca Keller

Val Keller
Anne O'Neill Kellers
Alexia Kelley
Barbara Kelley
Carol Kelley
Erika Kelley
Gail Kelley
Jack Kelley
john kelley
Laura Kelley
Liam Kelley
Liz Kelley
Ronald Kelley
Scott Kelley
Sister Elaine Kelley
Tim Kelley
Denise Kelloff
Arlene Kelly
Bev Kelly
Brigid Kelly
Carol Kelly
Carroll Kelly
Colleen Kelly
Sr. Constance Kelly
Ethna Kelly
Eugene Kelly
Jane Kelly
Joyce Kelly
kathleen kelly
Sr. Kathleen Kelly
Kathy Kelly
mairead kelly
Marian F Kelly
Mark Kelly
Marlene Kelly
Mary Kelly
Mary L. Kelly
Sr. Mary Louice Kelly
Maureen Kelly
Patricia Kelly
Patrick Kelly
Richard Kelly
Robert Kelly
Sharon Kelly
Sister Patricia Kelly
Sr. Laurita Kelly
Kathleen Kelly GNSH
Judith Kelly Magida
Nancy Kelly, RSM
Mary Kelsey
Dale Kelsy
Tracy Kemme
Sr. Tracy Kemme
Sister Cheryl Kemner
Margaret Kemp
Meg Kemp
Meghan Kemp
Phyllis Kemper
carolynn kendall
G Kendall
Jillian Kene
Julie Kenly
Delphine Kennecly
Charles Kennedy
Eileen Kennedy
Norine Kennedy
Pat Kennedy
Patricia Kennedy
Rhe Kennedy
Robert Kennedy
Al Kenneke
Claude Kenneson
Kathleen Kenney
Pat Kenney
Patricia Kenney
Susan Kenney
Mary Claire Kennnedy, SSJ
Caroline Kennon
George Kenrick
James Kent

Daniel Keny
Carol Kenyon
Jennifer Kenyon
Paul Keough
Gregory Kepferle
Marcia Keppel
Marilyn Kerber
Don Kercher
Donald Kercher
Charlotte Kerelko
Marilyn Kerins
Mary Kerins
Sr. Veronica Kerivin
Alicia Kern
Francesca Kern
Gail Kern
Sr. Lucille Kern
Lucille Kernahan
Lucille Kernahan
Eileen Kernan
Mary Noel Kernan
Leanne Kerner
Andrew Kerr
Charles Kerr
Christopher Kerr
Mollie Kerrigan
Jeff Kerscher
Kathleen Kershner
Amy Kersten
Emily Kesler
Lisa Kesler
Allan Kessk
Carolyn Kessler
Karen Kessler
Sarah Kessler
Sister Irma Kessler
Sr. Kessler
Niola Kessy
kathy kestell
Louise Kesty
Amy Ketner
Eleanor Kets
Michael A Ketterhagen, Ph.D
Mary Jane Kettler
Elizabeth Keuffer
Mary Keusal
George Keushgerian
Theresa Kewley
Patricia Key
Donna Khatib
Dianne Khebreh
Hilda Kicinski
Kathryn Kidder
Mary Kidney
Sandy Kiefer
Therese kiefer
Zrinka Kiel
Shiela Kielly
kathleen kiely
Mike Kienzle
Joan Kijek
Sr. Louis Kikkert
Kathleen Kilbane
Sr. Kathleen Kilbane
Lou Ann Kilburg
Loretta Kilby
Mary Kilcer
Kathleen Kilcommons
Dorothy Kiley
Dahlia Kilgore
Daisy Kilgore
Jennifer Kilgore
Lily Kilgore
William Kilgore
Elizabeth Killackey
Karen A Killeen
Rita Killian
Eunae Kim
In Ouk Kim
Josephina Kim
Susy Kim
chris kimar
Ms. Rachel Mari Kimber
Dianna Kimling
Gardner Kimm
Madeleine Kindler
Margaret Kindling
Alexander King
Ann King
Barbara King
Danny King
Emily King

Gala King
Ginny King
Heather King
James King
Janine King
Kelly King
Lisa King
Marilyn King
Mary King
Patricia King
Rebecca King
rose king
Thomas King
King
Jacqualine Kingsbury
Whitney Kinkel
Rachel Kinker
Joan Kinnane
Kelli Kinnear
Janet Kinneberg
Debora Kinney
George Kinney
Rev James Kinney
Bernadette Kinniry, RSM
John Kinsella
Levin Kinsey
Carmela Kinslow
Lindsey Kinsman
Michael Kinsman
Diane Kintz
Martha Kirbach
Craig Kirby
Erika Kirby
Jean Kirby
Peter Kirby
Susan Kirby
Mary Kirchhof
Lori Kirchman
Sr. Catherine Kirchuer
Audrie Kirk
Audrie Kirk
Martha Ann Kirk
Sister Kirk
Sister Patricia Kirk
Jean Kirkendall
Joan Kirkpatrick
Kathleeen Kirley
Janice L Kirsch
Paulette Kirschensteiner
Rosemarie Kirwan
Sarah J. Kiry
Sr. Ardeen Kisiel
Cheryl Kisiel
Lucia Kisiel
Paul Kisner
Karen Kita
richard kite
S Kite
Sue Klaber
Marcia Kladek
Debra Klander
Janelle Klander
Kay Klang
Sr. Annie Klapheke
Hunter Klapperich
Agnes Klar
Marcia Klawon
Sr. Barbara M. Kleck
Carol Klee
Beth Klein
Genevieve Klein
Gerald Klein
James Klein
Johanna Klein
Mary Klein
Rachel Klein
Shannon Klein
Lucy Klein-Gebbinck
mia klein-gebbinck
Lauren Kleinman
Patricia Klemm
Norma Klemme
Clarice Klepadlo
Mary Klicka
Sr. Mary Klier
Tim Klima
Joan Klimski
Geraldine kline
Sr. Geraldine Kline
Paulette Kline
Margaret Kling
Mary Beth Klingel

Peter Klink
Anne Klinker
Shin Klly
Dr. Robert Klocke
Sharon Klod
Kathleen Kloeblen
Jerome Klosner
Naomi Klosner
Maria Klosowski
Paula Klosterman-Pritchard
Mark Klugiewicz
Joanne Kmiec
Greg Knapik
Dan Knapp
Tracy Knapp
Joanne Knauss
kneeshaw
Jim Knight
Jo Ann Knight
Marianne Knight
Michelle Knight
Veronica Knight
Monica Knipfer
M J Knittel
Julia Knitter
Sr. Agatha Knittig
Fran Knoll
Maria Knoll
Diana Knowland
Ashley Knox
Barbara Knox
Kevin Knox
Alyssa Knudsen
Mary Knudsen
Luise and Gordon Knutson
Sr. Florience Koate
Stephen V Kobasa
Mary Kober
George Kobosko
Audrey Koch
Daniel Koch
Mark Koch
Patricia Koch
Robert Koch
Sr. Marcelline Koch
Sister Leonette Kochan
Marlene Kochert
Joye Kochman
Amber Kocian
Elizabeth Kodi
Francine Koehler
Nancy Koehler
Susan Koehler
Susan Mary Koehne
Jackie Koejeik
David Koeller
Kathleen Koenen
Mary Ellen Koenn
James Koerber
Anne Koester
Maryann Koestner
Marilyn Kofler
Richelle Kogan
Kathy Kohl
Merilee Kohler
Sarah Kohles
Carl Kohls
Timothy Kohut
Nancy Koke
Kim Kokett
Deborah Kolesar
Sr. Elizabeth Kolmer
Sharon Kolosseus
Mary Koltze
Nobo Komagata
Sachiko Komagata
Kathy Komarek
Julie Komarzec
gail Komives
Chris Kondrat

Joanne Kondratieff
Kathleen Koneazny
Carole Konetzki
Bianca Konick
Darem Konnia
Mary Ann Kono
Laurie Konwinski
catherine konyn
Sharon Koob
Susan Koontz
William Kooser
Richard Kopace
Sister Renee Kopacz
Thomas Kopera
PAUL Kopper
Connie Koppes
Elizabeth Koprowski
Cristina Koralik
Leslie Korb
Donna Marie Korba
Charles Korecki
Joseph Koren
Gloria Korhonen OP
Betsy Korlmak
Janet Korn, RSM
Judy Korte
Carolyn Kos
Carol Koser
Bonnie Koshofer
Joe Kossuth
Nancy and Gerald Koster
Kevin Kostic
Vince Kostos
Kathryn Kosydar
Matthew Kosydar
Mary Kottenstette
Mary Kathryn Kottke
Teresa Kotturan
Catherine Kouns Born
Maria Kouvaras Bouzalakos
Andrea Koverman
Tami Kowal
Christopher Kowalski
Walter Kowalski
Lynn Kowats
Francis Kozak
Constance Kozel
Diane Kozlowski
Joan Kozlowski
Mary Kozmik
Charles Kozup
Tana Kradolfer
David Kraemer
Sr. Julie Kraemer
Nicholas Krafft
Karen Kraft
JoAnn Kraine
Norma Krajczar
Cassie Kralovec
Constance Kramer
George Kramer
Hugh Kramer
Mary Kramer
Stephen Kramer
Steven Kramer
Theresa Kramer
Steven Kranowski
Joseph Krans
Carolyn Krantz
Meg Kranzley
Scott Kranzusch
Sadie Kratt
Roxan Kraus
Laura Krausa
Susan Krause
Sr. Mary Leah Krauth
Connie krautkremer
nathan Krawetzke
Abigail Krebs
Joan Krebs
Ms. Leslie Krebs
RM Krebs
Sister Karen Krebs
Sue Krebs
Diana Kregiel
Janet Kreiner
cynthia kreitz
Martin Krepcho
Marla Kreps
mary e kress
Ms. Mary Kay Kress
mariel kreuziger

Joan Kreyenbuhl
Mary Joan Kreyenbuhl
William Kriege
Juli Kring
Richard Krivanka
Anne F. Kriz
Michelle Krocker
John Kroener
Elizabeth Krogman
Elizabeth Krohn
Kathryn Krohn-Gill
Patricia Krommer CSJ
Pieter Kroon
Mike Krouse
Richard Krquiec
Sr. Kathryn Krrssel
Joan Krueger
Mary Krueger
Nancy Krueger
Robert Krueger
Sol Krueger
Wayne Krueger
Nicole Krupp
Marcia Kruse
marilyn kruse
S. Rita Krusell
Sr. Evelyn Krushamp
Constance Krusniewski
Mike Krussel
MARIE KRUSZEWSKI
Walter Krystiniak
Henry Krzywy
Kim Krzywy
Julianna Ksicinski
Steven Ksiel
Cecilia Ksycki
Sr. Ruth Cecilia Ksycki
Theresa Kuale
Nancy Kubacki
Edward Kubik
Edward Kubik
Sandra Kucharski
Janet Kuciejczyk
Brian Kudro
David Kuebrich
Kevin Kuehl
Stephen Kuehl
Jennie Kuenz
Robert Kugelmann
Debbie Kugler
paul kugler
Loretta Kuhn
N Kuhn
Ruth Kuhn
Julia Kuhrt
Amy Kulesa
Marie Kullman
Roger Kulp
George Kunberger
Teresa Kunkel
Sj Kunkle
Ernest Kuns
Gloria Kuns
Nancy Jane Kuntz
Christine Kunze
Franz Kuo
Nancy Kuppersmith
Nancy Kurkiewicx
Bonnie Kurowski
Erik Kurtenbach
Janet Kurtz
Maureen Kurtz
Ms. Pat Kurtz
Joan Kuryla
Catharine Kurz
Mrs. Teresa Kurz
Maureen Kurz Jr.
Thomas Kurz Jr.
Sr. Joan Kusak
Sharon Kusmirek
Sister Susan Kusz
Susan Kusz
Lori Kutchey
Susan Kute
Rammy Kuttaineh
Kathleen Kuyla
Cathie kwasneski
Camille Kwiatek
Margaret Kwiatkowski
Claudia Kyalangalilwa
Elizabeth L
Sr. Leann L

Gary L.
Glorianna L'Ecuyer
Crystal L'Hote
E La
Yves La Fontaine
TEODORA LA MADRID
Rebecca La Point
Dr. John E. Laabs
John Labaj
Elizabeth LaBarre
Mr. John Labbaj
Sr. Joan Laboon
Marcy LaBossiere
Jackie LaBouff
Roxana Labrador
Mary LaBrake
Rob Labrecque
Patricia Labuda
Maru Lacayo
Brigida Lachapelle
Richard Lachapelle
Susanne Lachapelle
Susanne Lachapelle
Suzanne Lachapelle
Irene Lackey
Cecilia Ladda
Bob Ladenburger
Sheila LaFalce
Alaine Lafaso
Eleanor Lafferty
Judy Ann Lafferty
Patricia Lafferty
Roger E. Lafferty
Alice Laffey
Judith Laffey
Rosemary LaFlaur
Liz LaFour
Joanne LaFreniere
Michael Lagana
JoAnn LaGasse
John Lagios
Evelyn LaGoiry
Maura Lagreca
Amarilys Laguna
Emily LaHood-Olsen
Sandra Laipis
David Lajuett
Jennifer Lake
Margaret Lake
Rebecca Lake
Katie Lakerd
Lisa Lakes
Anne Lalberte
Laisz Lam
lanhuong lam
jane LaManna
Jennifer LaMaster
Jamesine Lamb
Sr. Carol Lambert
Henry Lambert
JAMES LAMBERT
Mary Lambert
Tim Lambert
Sr. Rose Marie Lambertz
Joanne Lamert
Theresa LaMetterey
Katrina Lamkin
Joanne Lammers
Matt Lammers
MARY LAMMERT
Anne Marie Lamoureux
Evelyn Lamoureux
Barb Lamps
Theresa Lamy
Lana Lancaster
Linda Land-Closson
Nilce Landau
suzanne lande
Janet Lander
Sr. Doris Landers

Rachel Landisman
Julia Landkrohn
Celia Landman
Jacquelyn Landridge
Michael Landrigan
Danielle Landry
Lorraine Landry
Arthur Lane
Meliea Lane
Michael Lane
Patricia A Lane
Taylor Lane
Margaret Lanen
Maryann LaNew
James Lang
Joan Lang
Sr. Joan Lang
Paula Lang
Margaret Langan
Tony Langbehn
Frances Lange
Lori Lange
Marie Langenes
Ana Langerak
Sasha Langley
Sr. Dorothy Langlus
Carole Langmead
Elizabeth Langmead
PA Martha Langorica
Lillia Langreck
Niva Langreck
Diane Langworthy
Andrew Lanier
Julia Lanigan
Benita Lankford
Kathleen Lankford
Kelly Lanspa
Mike Lantagne
Jessica Lantos
Moya Lantru
Patrick Laorden
Lauren Lapinski
Vicki LaPlace
Gerald Laporte
Francisco Lara
Jacquelyn Lardie
Peggy Lareau
Patricia Larger
Lorraine Largess
Patricia Largo
Hugh Larkin
Kathryn Larkin
Paige Larkin
Candace Larlham
William Larme Larme
Sister Denise LaRock
Martha Larsen
Alyn Larson
Beth Larson
C. Larson
Cullen Larson
Kristine Larson
Mary Larson
Erik LaRue
Donald LaSalle
Mary Lash
David Laskarzewski
Sr. Mary-Celine Laskey
Frederick Mark Laskovics
Colleen Lasky
Patrick Lasseter
Josephine LaTempa
Yolanda Latessa
Alice Latham
Sr. Claire Lathan
Tom Latimer
Sr. Sallie Latkovich
Felix Lau
Sally Lau
Wai Tung Lau
Fr. Jack Lau, OMI
Jean Laubach
Gottfried Laube
Jonathan Lauber
Ryan Lauber
Julie Laudick
Corinna Laughlin
Elaine Laughlin
Abigale Laurencelle
Angela Laurenzo
Joan Lauriente
Rachel Lauze

Fr. Xavier Lavagetto OP
Cecelia Lavan
Sr. Elizabeth Lavele
Marge Lavenburg
Carol Laverdure
Vinnie LaVerme
Diana Lavery
Belandina LaVigne
Dennis Lavoie
Nancy J. Lavoie
Mary Lawien
Sr. Rachel Lawler
Julie Lawless
Cheryl Lawrence
Mary Lawrence
Patricia Lawrence
Tom Lawrence
Duffy Laws
Kathleen Laws
Mary Laws
denis lawton
Mary Laxague
Chris Laxton
Albert Laya
Julia Layman
Charles Laymon
Elaine Laymon
Genevieve Laymon
Lance Lazar
Hieu Le
Mr. Patrick Le
Glenn Leach
Josephine V B Leach
joan leachman
Antoinette Leahey
Dina Leahy
Mark Leahy
Sarah Leahy
Jim James Leak
Brenda Leal
Brenda Leal
Jean Leal
Sonia Leal
Odilia Leal-McBride
Rupanne Leallal
catherine Leamy
Christina Leano
Leonora Leano
John Leary
Kristine Leary
Linda Leary
Debbie Leaverton
Brenda S. LeBlanc
Carole LeBlanc
Yvonne LeBlanc
Terri Leblil
Edelimira Lebo
Robin Lecated
Mary Lechner
Mary Ann Lechner
Sister Mary Ellen Leciejewski
Sr. Therese Leckert
SISTER Margaret LECLAIRE SSSF
Rosemarie LeClercq
Angela Ledbetter
Rosemarie LedClercq
Felicity Leddy
Liz Leder
William Leder
Lisa LeDoux
Anthony Lee
Barbara Lee
carol lee
Catherine Lee
Clare Lee
Daniel Lee
Erin Lee
Hannah Lee
Hui-ying Lee
Jennifer Lee
Michelle Lee
Mjok Lee
Nelson Lee
Peter Lee
Robert Lee
Sister Mary Lee
sunhak lee
Susan Lee
David Leege
Melissa Leel
maria leemans
mary leen

Kelly LeFave
Marielle LeFave
Ms. Ellen Lefebure
Jeanne Lefebvre
MB Lefebvre
Yvonne LeFever
Gemma Legel, OSF
Bradley Leger
Paul Leggett
Dean Leh
Marcella Lehar
Joseph Lehman
Sr. Janet Lehmann
Brenda Lehr
Kalista Lehrer
Christine Lehrich
Jean Marie Lehtinen
Lorraine Leibold
Margaret Leimeister
Doris Lein
Jenny Leinbach
Bernard Leiner
Roberta Leiner
Michelle Leis
Rita Leitch
Teri Leitwein
Laurie Leland
Mrs. Hijanura Lemanley
Marcia LeMay
Helen Lembeck
Carol Lemieux
Dan LeMieux
John Lemker
Mr. Craig Lemley
KJ Lemoine
Mary Pat Lenahan
Therese Lenahan
Barbara Lenarcic
Susan Lenczyk
Henry Lengkeek
Marie Lenihan
Annette Lennis
Mary Lennon
kent lennox
Dan Lenossi
kay lent
Tony Lentini
Clare Lentz
Gerald Lenza
Anne Marie Leofanti
Barbara Leonard
Bernita Leonard
Eileen Leonard
Janet Leonard
Mary Leonard
Nancy Leonard
Rosemary Leonard
Sr. Ann Leonard
Anne Leone
Christopher Leone
Farrah Leone
Maryanne Leone
Leslie Leonetti
Andrew Leopold
Pedro Leor Martinez
Rosa Lepee Sanchez
Dolores Lepori
Bob Leppo
Carol Lerand
Mary Lou LeRout-Simeoine
Mary Lerps
Carol Lesch
K Lesch
Dorothy Ann Lesher
Frank Lesko
Barbara Leslie
Jamie Leslie
Mary Leslie
Sr. Susan Leslie
Neal Lesmeister

Richard Lessard
Marlene Lester
Leslie Lestinsky
Mary LeTourneau
Janette Letson
Rueoliger Leuricli
Marie Leven
Carol Leveque
Sr. Louise Levesque
Sarah Levesque
Susan Levesque
Toni Levi
Rhoda Levine
Bonnie Levingston
Matthew Levis
Nicholas Levis
Aeriel Lewandowski
Claire Lewandowski
Libby Lewandowski
Michaeline Lewandowski
Andrea Lewis
Chelsea Lewis
Donna Lewis
Erma Lewis
Helen Lewis
James Lewis
Jennifer Lewis
Lisa Lewis
Ms. Maria R Lewis
Mary Lewis
Paul Lewis
Sr. Rita Lewis
Rolwin Lewis
Taylor Lewis
Walt Lewis
Wendy Lewis
Frank Leykamm
Catherine Leyser
Loretta Leyvas
Hyn Lez
Margaret Leza
Juan Lezcano
William LHEUREUX
Candace Lhotka
Erick LÌ_pez, OFM
Mark Liands
Chia Huei Liang
Thomas Libbey
Joe Liberato
Carey Libertini
Molly Liberto
Nancy Libman
Aitana Libreros
Annette Licata
Janann Licklider
Lawrence Licklider
Ruth Lickteig
Lisa Lidgus
Michael Lien
Mary Liepold
Andrea Liggett
Taylor Liggins
matthew light
Ali Liguori
Deborah Liguori
Lynne Lihotz
Irene Likoudis
Andrea Likovich
Bryan Lilienkamp
Michael Lilka
Angela Lim
Jean Lim
Carlos Lima
Gilda R. Lima
Angela Lincoln
Kangombe linda
Joanna Lindberg
Susan Linden
Stephen Linder
Sister Susan Lindinger
Jason Lindley
Matthew Lindley
Rose Lindner
Janice Lindsay
Colin Lindsly
Lorna Lineberry
James Linehan
Patricia linehan
Tim Linerud
John Lineweaver
James Linhares
Meg Linhart

Terry Link
Vivien Linkhauer
MARK LINKINOGGOR
Maryann Linn
Charles Lintz
Karen Lionello-Denolf
Michael Lipe
Connie Lippert
Timothy Lippert
Diane Liptack
Elizabeth Lischer
Jennifer Lischer-Froehlich
Heidi Liscomb
George Lisjak
Phyllis Lisle
Gloria List
Lawrence Ann Liston
Judy Litchfield
Mary Litell
Kelly Litt
Therese Litt
Sister Clare Ann Litteken C.PP.S.
Thomas Littelmann
Leslie Little
Mary Little
Georgia Litzenberg
Carol Litzler
Ms. Virginia Livesay
Amy Livingston
Carolyn Livingston
John Livingston
Daniel Livorsi
Sofia Livorsi
Gwynn Llewelyn
Jordi Llinares
Jack Lloyd
Stephen Lo
Sister Dominica Lo Bianco
James Loafman
Paulina Loaiza
Paulina Loaiza
Courtney Lobban
Ro LoBianco
Stella Lobo
Irene Locario
Mary Ellen Loch
Mary Agnes Lochner
Dorothy Lockhart
Theresa Lockhart
Nicole Locklin
Carol Ann Lockwood
Jessica Lococo
Gloria Locuroio
Kay Loeffelholz
Anne Loeffler
Richard Loehrlein
ann loera
William Loese
William Loewe
Jim Loftis
Mrs. Lisa Loftis
Mikayla Lofton
Cynthia Logan
Mariyln Logan
Pam Logan
Sister Kathleen Logan
Al Logiodice
Sr. John Cassian Logue
Kelly Logue
Deborah Lohse
Michelle Loisel
Sr. Mary Lawrence Lojko
Sr. Norma Jean Lokcinski
Frances Lombaer
Arlene Lombardi
Cherilynn Lombardi
John Lomela
Melissa LoMenzo
Elaine Lomprom
Luz Londono
Alice Long
Ann Long
Carl and Louise Long
Catherine Long
Garth Long
John Long
Judy Long
Melissa Long
Pam Long
Patricia Long
Sandra Long
Susan Long

Walter Long
Debora Longenhagen
Joe Longhini
Nora Longobardo
Doreen Longres
Lucien Longtin
Mary Looby
Julia Dorsey Loomis
Sr. Rosemary Loomis
Laura Loper
Leslie Lopes
Carl Lopez
Efrain Lopez
Francisco J. Lopez
Gabriel Lopez
Isabella Lopez
Jeanine Lopez
Margaret Lopez
Maria Lucinda Lopez
Mauricio Lopez
Randy Lopez
ron lopez
Susan Lopez
Veronica Lopez
Rosa Lopez Sanchez
Lisa Lopez Snyder
Maryann Seton Lopiccolo
Chris Loqnnides
Marybeth Lorbiecki
Donna Lord
Sr. Donna M Lord
Edna Lord
Roseann Lord
Nancy Lorence
Joyce Lorentz
Marilita Lorenz
Renee Lorenz
Rosemarie Lorenz
Phirne Lorenzen
Anahita Lorestani
Veneta Lorraine
Sharon LoRusso
Erin Lothes
MARY LOTHSCHUTZ
John Loudoun
Leona Loughing
Sr. Marie Louise
Sylvia Loumeau
Sister Diane Louttit
Rebecca Lovano
Ken Lovasik
linda love
Deb Lovelidge
Shaula Lovera
Nichola Lovett
Joy Loving
Sharon Lowe
Monica Lowery
Louise Lowg
Michael Lowry
Eithne Lowther
Lauren Lrlfong
Christine Lua
Ruth Lubbers
Susan Lubianez
Christa Lucas
Kathleen Lucas
Mark Lucas
Alison Luccia
Jean Luchi
Eileen Lucht
James Luckett
Karen Luckini
Linda Luckmansalas
Dennis Luczak
Frances Ludwig
Robert Ludwig
Sr. Benita Luetkemeyer
Joan Luft
Catherine Lugar

Jessica Lugman
Armando Lugo
carolous lui
John Luidig
Barbara G. Luikart
Claire Luikart
Emily Luikart
Martha E Lujan
Olga Lujan
Zachary Lukashefski
Sr. Esiher Lulin
Paula Lulzky
Barbara Lum
Amanda Lumsden
Treve Lumsden
Carolyne Luna
Robert and Paula Lund
Chris Lundin
Walter Lundin
Eileen Lundy
Anthony Lundy
Rose Lundy
Suzanne Luntz
Edmondo Lupieri
Jean Lupinacci
Mrs. Jean Lupinacci
Stacy Lupori
Ann Lusch
judith lussier
Gerard Luttenberger
Sarah Lutterodt
Lawrence Lutz
Jayson Luu
Ms. Mary E. Lux
Catherine Luxner
Dianne Luzzi
Gina Luzzi
Terry Lverson
Bernadette Lyall
Jennifer Lydic
Karen M Lydon
Virgina Lyke
Lori Lyles
Gary Lyman
Mary B Lyman
Steven Lyman
Alyssa Lynch
Ann Lynch
Anne Lynch
Sr. Dorthy Lynch
Eddie Lynch
Elaine Lynch
John Lynch
Kathleen Lynch
Kristin Lynch
Margaret Lynch
Sr. Margaret M Lynch
Mary Lynch
Matthew Lynch
Patrici Lynch
Rickie Lynch
Sean Lynch
therese lynch
Caitlin Lynch-Huggins
Jane Lynd
Mrs. Mary Lynkappert
Teresa Lynn
winnie lynott
Margaret Lynx
Georgette Lyons
Sr. Jane Lyons
Joseph Lyons
Karen Lyons
Kathleen Lyons
louise lyons
Kelli Lysz
Sr. Anne Lythgoe
Jonathon M
Kern M.
Kathleen Maas Weigert
Sr. Noreen Maboae
jane MacAfee
Justin MacCarthy
carla macchello
Sister Louise Macchia
Jacqueline Macchis
Jennifer MacDonald
Sheila MacDonald
Sr. Stefanie MacDonald
Trudy Macdonald
Sr. Mitzi MacDonald, RSHM
Dorothy MacDougall

Suzanne MacDougall
John Mace
anne macfadyen
John MacFadyen
Michelle MacFadyen
Gloria MacGillivray
Cynthia Ann Machlik
Salvador Macias
Elizabeth Maciejewski
Sr. Theresa V. Macintyre
Mary-Frances Macioce
denise mack
Jean Mack
KATHRYN MACK
Timothy Mack
Janice Mackanic
Ingeborg MACKAY
Mary Macke
Paul Macke
Diane MacKenzie
Mary Alice MacKenzie
Rebecca MacKenzie
Therese MacKenzie
Kathleen Mackerer
annie mackert
Dick Mackey
Mark Mackey
John Mackin
Marilyn Mackinnon
Leslie MacKnight
Sister Mackowiak
Mary MacLean
Mary Darragh MacLean
Michael MacLean
Ryan MacLean
Eleanor MacLellan
Mark MacMahon
Mary Ann MacRae
elizabeth madden
Marissa Madden
Marissa Madden
Monica Madden
Joyce Maddox
Marianne Mader
Sr. Marieanne Mader
joe madero
Frances Madigan
Sister Frances Madigan
Alexandra Madison
Holden Madison
Angela Madl
Josefina Madrigal
Naomi Madrigal
Annette Madsen
Donna Mae
Jennifer Maez
Carole Magary
Patricia Magee
Sr. Patricia Magee, OP
Shane Maggart
Sr. Corinne Magi
Eileen Magin
Tony Magliano
James Magnan
Joan Magnant
Annette Magner
Sr. Rosemary Magnila
Sabrina Magnisi
Rosetta Maguino
Catherine Maguire
Liz Maguire
Catherine Mahady
Susan Mahalik
Elizabeth Maher
john maher
Robert Maher
Sister Mary Frances Maher
Therese Maher
Lucy Mahler
Tamara Mahmoud
Patricia Mahon
Br John Mahoney
Charlotte Mahoney
Courtney Mahoney
Cynthia Mahoney
David Mahoney
Edward Mahoney
Joan Mahoney
Mr. Joe Mahoney
Margaret Mahoney
Patricia Mahoney
Sheila Mahoney

Todd Mahoney
Robertq Mahony
MK Mahowald
Kristi Mahrt
Ruth Maier
Alice Maiers R>S.M.
Alice Mailman
Keith Mainhart
Erin Maiorca
Cassie Majetic
Sr. Louise C Majka
Arlene Makita-Acuna
Sunny Makoge
Sr. Ireen Makovere
Stephanie Maksymiu
Rose Malague
Madeline Malarkey
Francesca Malatesta
teresa malathi
Jordan Malcom
Donald Maldari
Maria Maldonado
Nancy Maldonado
Teresa Maldonado
Catherine Malec
Carmelle Malerich
Dorothy Maleski
Edmund Malesky
Maria Malesky
Victor Malesky
Hen Maleslay
Terry Malia
Sharon Malley
Mr. Dennis Mallon
Dympna Mallon
david mallory
Paula Malloy
Kathleen Malone
Rosalind Malone
Sue Malone
Bill Maloney
Sr. Catherine Maloney
David Maloney
elizabeth maloney
genevieve maloney
Jean Maloney
Judith Maloney
Marge Maloney
Mary Maloney
Melissa Maloney
Sally Maloney
William Maloney
Sister M. Ancilla Maloney,IHM
Masie Managha
John Manahan
Lawrence Manchas
Marie Mandano
C Mandel
Kimberly Mandelkow
Larry Mandella
Cathy Manderfield
Jacqueline Manga
Ann Mangamar
Andrew Mangravite
John Manier
Melissa Manlanda
Katherine Manley
elizabeth zoe mann
Hal Mann
Louise Mann
Polly Mann
Robert Mann
Marie Manner
Scott Manner
Cindy Mannhalter
Deirdre Mannik
Antonine Manning
Marianne Manning
Marie Manning
Mary Grace Manning

Michael Manning
Sr. Theresa Manning
Sr. Silveria Mannion
Cathy Mannuzza
Lorraine Manon
Rosa Manriquez, IHM
Sister Lani Manseau
marian mansius
LaDonna Manternach
Grace Manthey
peg manuel
Patrick Manzanares
nancy manzie
Margaret Mapes
Sr. Anita Marallis
Joe Marando
Ida Mae Marceau
Dennis Marceron
Cindy March
Dale March
Robert March
Mary Marchal
Janet Marchesani
Sr. Janet Marchesani, OP
Jeanne Marchese
Mary Marchetti
Ruth Marchetti
Christopher Marcille
Pauline Marcinkiewicz
Janet Marcisz
Shirley Marcotte
Ellen Mardeusz
John Margerum
Andrea Margida
Anthony Margida
Michaela Margida
Dave Margolis
Sister Margraff
Gladys Marhefka
Barbara Marian
Benjamin Mariante
Jennifer marics
Kathleen Marien
Ms. Elizabeth Marietti
Wilson Marilyn
george marinelli
Janet Marinelli
Philip Marinelli
Sr. Stella Maris
Lillie Maritih
Joan Maritz
JoAnn Mark
Sr. Jolinn Mark
Michelle Markert
Mary Sue Markey
Patrick Markey
Jean Markey-Duncan
Judith Markiewicz
Jared Markowitz
Mark Markuly
Terry Markuly
Joan Markus
Paula Marlin
Brenda Marlow
Gwen Marlow
Kelly Maroney
Donna Marple
Andrew Marquard
Mary Marquard
Ann Marquardt
John Marquis
Sr. Anne Marron
Edmond Marroni
Laura Marsan
Chris Marsh
George Marsh
Leslie Marsh
Susan Marsh
Thomas Marsh
Sr. Barbara Marshall
carol marshall
Carolyn Marshall
Robert Marshall
Jean Marsich
Christa Marsik
Kristin Marsinek
David Martínez
Karen Martens
Lois Martens
Sr. Gladys Marie Martia
Ann Marie Martin
Carl Martin

Clotilde Martin
Dorothy Martin
Eleanor Martin
Faye Martin
G & B martin
Gemma Martin
gilbert martin
Jacquellyn Martin
Janet Martin
Karen Martin
Ken Martin
Larry Martin
Linda Martin
marie martin
Mary Martin
Mary E. Martin
Maureen Martin
MC Martin
Michael Martin
Nicole Martin
Rebecca Martin
Robin Martin
Roy Martin
Susan Martin
Suzanne Martin
Jeanne Martineau
Sarah Martinello
Beverly Martinez
Sr. Eleanor Martinez
Eleanore Martinez
Elena Martinez
Eric Martinez
Gabrielle Martinez
Marcos Martinez
Maria Martinez
Maria Elena Martinez
Mary Catherine Martinez
Paulo Martinez
Priscilla Martinez
Rodolfo Martinez
Rodolfo Martinez
Rosalinda Martinez
Rosemary Martinez
Tara Martinez
Tatiana Martinez
Jacinta Martinez SNDdeN

CHRIS MARTINOT
Alberta Martling
Joseph Martos
Mary Marvin
Neil Marwan
Jean Ann Marwick
Peter Masaga
Mark and Tamara Masarik
suzanne Maschek
Nancy Mascotte
moneer Masih-Tehrani
Fr. Brian Mason
Gaye Mason
Helen Mason
Ky Mason
Letitia Mason
Mary Mason
Mary Massaro
Lisa Massello
carolyn massey
Maria Massey
Lynn Massicotte
Dr. Patricia Masteon
Kathleen Master
Lauren Master
Jean Masterson
Kat Masterson
Kathleen Masterson
leslie masterson
Jean Masterson CSJ
Henry Matala
Carmen Matallana
David Matenaer
Diane Matera
Dieter Matern
michelle mathas
Carol Matheny
Justin Matheny
Kevin Matheny
Angus Matheson
Connie Matheson
Joseph Mathew
Christine Mathews
James Mathews
Katie Mathews
Tessa Matiella

Alberto E Matiz
Sr. Diane Matje
Katherine Matlack
Vicky Matsui
Margaret Mattare
Allison Matthews
Christie Matthews
Janet s Matthews
Jonathan Matthews
Linda Matthews
Sean Matthews
Marge Mattice
Sr. Pieta Mattingly
Suzanne Mattiuzzo
Jannette Mattouk
Carol Mattroon
Lawrence Matula
Lauren Matusich
Sr. Elizabeth Matuzek
Sr. Theresa Mauani
Addison Mauck
Kevin Mauer
Laura Maupin
Mrs. Jean Maura
carol maurer
Gertrude Maurer
Sr. Gertrude Maurer
Joe Maurer
Sara Maurer
Sister Imelda Maurer
Pauline Maurier
Karolyn Mauro
Richard Mauro
Julia Steed Mawson
Rebecca Maxwell
Ernie May
Jane May
Janet May
Maureen May
Theresa Mayand
Aimee Mayer
Anna Mae Mayer
Barbara Mayer
Jeffrey Mayer
Maria Mayer
Sr. Mary Josetta Mayer
Sr. Patricia Mayer
Carol Mayfield
Gretchen Mayhaus
Michelle Maynard
Teresa Mayorga
Harriet Mays
Rebekah Mays
Stephanie Mays
R. Mazelie
Martin Mazurek
Richard Mazza
Danette Mazzalelle
Cara Mazzaraini
Patricia Mazzarella, Ph.D.
Giovanni Mazzella
Kavisha Mazzella
Esther Mc Egan
Catherine Mc Guigan
Dolores Mc guinness
James Mc keown
Maureen Mc Lain
Anna M. Mc Laughlin
Nellie Mc Laughlin
Sister Eliza Mc Loughlin
Clare Mc Nerney
Alice Mc Vey
Julie McAdams
Dennis McAllister
Kate McAloon
patrick mcaloon
Mrs. Caryn McAndrews
Thomas McAndrews
Mr. Thomas Mcandrews
Rose McAnliffe

Fred McArdle
Perpetua McArdle
Sr. Ursula Mcarr
Cherie Mcarthur
Veronica McAteer
Elizabeth McAuliffe
Margaret McAuliffe
Mary McAuliffe
Paul McAuliffe
Maura McAvoy
Greg McAvoy-Jensen
Fr. Jeff McBeth
Brenna McBride
Jim McBride
john mcbride
Margaret McBride
Agnes McBryan
Anne Mccabe
Brian McCabe
Carmel McCabe
Gerard McCabe
Mr. James McCabe
Sr. Joan McCabe
Sr. Joan Alice McCabe
Judith McCabe
Dr. Karen McCabe
Kathleen McCabe
Louis McCabe
Margaret McCabe
Tim McCabe
Marylin McCafferty
Terry McCafferty
Deacon Chris McCaffrey
Eileen McCaffrey
Stephanie McCaffrey
Mary McCafrey-Murphy
Rebecca McCain
marcia mccallister
Anne McCandlish
Bernice McCann
Christine McCann
Don McCann
Elizabeth McCann
Frank McCann
James McCann
Sr. Joan McCann
Katherine McCann
Katie McCann
Marie McCann
Norah McCann
Sr. Patricia McCann
Sean McCann
Teresa McCann
Vicki McCann
Anne McCarney
Mary McCarrick
Anne McCarthy
daniel mccarthy
Jane McCarthy
Lawrence McCarthy
Margaret McCarthy
Marie McCarthy
Sr. Mary McCarthy
Marybeth McCarthy
MaryJean McCarthy
Maureen McCarthy
Michael McCarthy
Pat McCarthy
Robert McCarthy
Sister Patricia McCarthy
Stephen McCarthy
Susan McCarthy
Patricia McCarthy-Hohl
Maggie McCarty
Sr. Regina McCatney
Dorothy McCauley
Mary McCauley
Mary Ann McCauley
Sister Kathleen McCauley
Mary Ann McCauley, S.P.
margaret mcchesney
Theresa McClain
JOHN McCLELLAN
Sr. Barbara McClelland
Terry McCloskey
Anne. McClure
Ellen McClure
Jack McClure
Susan McClure
Genie and Bob McCombs
Catherine McConnell
Loretta McCormack

Beth McCormick
Sr. Beth McCormick
Brian McCormick
Donna McCormick
Eileen mcCormick
Elizabeth McCormick
Marie McCormick
Rose mccormick
Caroline McCormick Mendyk
Millicent McCorry
Peter J. McCourt
Bonnie Mccoy
Brian McCoy
Louise McCoy
Gerry McCracken
Susan Mccracken
Sr. Sue McCrery
Rita mcCrystal
Elizabeth McCue
Kathleen McCuistion
Darlene McCulloch
Megan McCullough
Patrick McCullough
Sr. Rose McCully
Angela McCune
Rosemary McCutchen
Kelly McDaniels
Frank McDermotes
Connie McDermott
Frances Mcdermott
Joanne McDermott
Judith McDermott
Kristin McDermott
Sr. Maureen McDermott
Maureen F McDermott
Patricia McDermott
Shawn McDermott
Stacia McDermott
Barbara McDermott, RSM
John McDevitt
John McDevitt
A.L. McDonald
Erin McDonald
Joyce McDonald
Karen McDonald
Kim McDonald
Lynne McDonald
Mary Ann McDonald
Mary Ellen McDonald
Maureen mcdonald
Meghan McDonald
Mitch McDonald
Patricia McDonald
Sr. Phyllis McDonald
Rose McDonald
Sr. Melinda McDonald
Tammy McDonald
Kathleen McDonnell
Maureen McDonnell
Rea McDonnell
Rich McDonnell
Tim McDonogh
Arlene McDonough
Ellen McDonough
Mary Ann McDonough
Daphne McDowell
Jane McDowell
Sr. Elizabeth McElhanny
Cheryl McElhatten
Judith Mcelhinney
Sr. Vivian McElhnny
Ellen McElroy
Maureen McElroy
Joan McElwain
Judith McElwee
Jocele McEnany
ann mcentee
Sr. Marty McEntee
Ann Mcevoy
Stephen McEvoy
Dara McFadden
Sr. Mary McFadden
Kelly Mcfarland
Mary McFarland
Michael McFarland
Sr. Mary Jo McFayden
Sister Barbara McGahan
Mary McGann
Dr./Sr. Mary Mcgann
Marietta McGannon
Sheila McGarrigle
Arlene McGarrity

Kevin McGarry
Donna McGartland
Ms. Geraldine McGartland
Lena McGee
Mary McGee
Rob McGee
Alicia McGill
Ann C. McGill
Mary McGinley
Sheila McGinn
Kathy McGinnis
Sheila McGinnis
frank mcginty
Jean McGinty
Margaret McGirr
Charles McGlinn
James McGlinn
Jeanne M. McGlinn
Jim McGlinn
Dorothy McGlynn
Katharine McGlynn
Maura McGlynn
Michael McGlynn
Suzanne McGlynn
Patricia McGoldwich
Michael McGonigle
Janet Mcgough-Csany
Kathy McGourty
Renny McGovern
Dorothy Mcgowan
Fiona Mcgowan
Joan M McGowan
Margaret McGowan
Patricia McGowan
Regina McGowan
Jeanine McGrady
Loretta McGrann
Darryl McGrath
Mary McGrath
Rosemarie McGrath
Sheila McGrath
Sr. Sheila McGrath
Sister Pat McGrath
Theresa McGrath
Patrick McGrath SJ
Barbara McGrattan
teresa mcgreevy
Jeanne McGue
Evelina McGuigan
Margaret A McGuiness
Barb McGuire
Barbara McGuire
John McGuire
Lynn Mcguire
Mark McGuire
Richard McGuire
Mr. Richard McGuire
Tara McGuire
Hugh E. McGuire, Jr.
Sr. Mary McGumer
Virginia McGurgam
Claire McGwan
Bonnie McHugh
Mr. Joseph McHugh
Margaret C. McHugh
Maryann McHugh
Michael McHugh
Paulette McHugh
Ruth Anne McHugh
Mary Christine McInerney-Japy
Roger McIntire
James McIntosh
Jeanie McIntyre
Kelley MCINTYRE
Mrs. Margaret McIntyre
James McKay
Tracy McKay
Dorothy McKeague
Rosemary McKean
Sister Ann McKee

Sandra McKeith
Linda McKeivier
Annalita McKenna
Joan McKenna
Katherine McKenna
Louise McKenna
Maria McKenna
Mary A. McKenna
Rebecca McKenna
Stephen McKenna
Erin McKenzie
Grace McKenzie
jeanne mckenzie
George McKeon
Gini McKeon
Judy McKeon
Katie McKeon
Rev. Gerard McKeon
Kathryn McKibben
Caroline Mckillop
Mimi McKindley-Ward
Jane McKinlay
Patti Mckinley
Jean McKinney
Margaret McKitrick
Linda McKnight
Mary Kate McKnight
Felicia McKone
Danial Mckron
Brian McLauchlin
Brett McLaughlin
F. Joseph McLaughlin
GLORIA MCLAUGHLIN
Jane McLaughlin
Karen McLaughlin
Kevin McLaughlin
Margaret McLaughlin
Marian McLaughlin
Paul McLaughlin
Sister Margaret McLaughlin
Kevin McLaughln
Amber Mcleod
Phoebe McLeod
R. G. McLeod
Jean McLoughlin
Kimberly Mcloughlin
Peter Mcloughlin
Kent McMahan
Lee McMahan
Cindy McMahon
Justin McMahon
Kathleen McMahon
PA Linda McMahon
Mary McMahon
Madison McMann
Cassady McManus
Joan McManus
Marie McManus
Mary McManus
Susanne McMaster
Cynthia McMath
Bonnie McMenamin
Alvin McMenamy
Patricia McMican
Steven McMichael
Edward McMillen
Marcia McMillen
Marilyn McMorrow
Patricia McMugh
Anne McMullen
Kathleen McMullen
Paul McMullen
Rosemary McMurray
Thomas McMurray
Patricia McNally
Suzanne McNally
Molly McNally Dunn
Donald McNamara
Mary McNamara
Pe Geraldo McNamara
Thomas McNamara
Catherine McNamee
Kathleen McNANY
Ann McNeil
Clare McNeil
Rose McNeil
Douglas McNeill
Ellen McNeirney
Patrick McNelis
Claire McNichol
Dick McNicholas
Janet McNicholas

Cynthia McNulty
Martha McNulty
Shirley McNulty
T. Michael McNulty
Suzanne McNutt
Heather McPhail
Ruth McPherson
Uta McQuade
Thomas McQuaid
Sr. Susan Mcreckan
Kevin Mcshane
Bernadette McSparron
Rebecca McTavish
Patricia McTeague
James McVeigh
Carolyn McWatters
Jenni McWilliams
Dr. Amber Meade
Mark Meade
AGNES MEAGHER
Jackie Meagher
Madeleine Meagher
Mrs. Jacqueline Meagla
Maribeth Meaux
Theresa Mecuis
Cecilia Medeiros
Elizabeth Medeiros
Mike Medeiros
Philip Medeiros
Laura Medellin
Maria Mederos
Joanne Medicke
Carmen Medina
Gladys Medina
Letty Medina
Maria A. Medina
Donna Medley
Scott Medlock
Margie Medrano
Cara Medwick
Cara Medwick
Tony Medwid
Sr. Evelyn Mee
Joanne Meehan
Thomas Meehan
Molly Meek
Margaret Meeker
Mark Meeks
Kathleen Meenagha
Susan Meenan
Elizabeth Meer
Sr. Anna Megel
Mark Mehler
Richard Mehlinger
Joy Mehrtens
Mary Meillier
KeViN MeInHaRdT
Mark Meinhardt
PaMeLa MeInHaRdT
Mardelle Meinholz
Gary Meister
Catalina Mejia
Victoria Mejia
Susan Mekeel
DONYA MELANSON
Sr. Sandra Melanson
Pam Melasky
Mary Mele
Haris Melendez
Eric Meljac
ILDA MELO
Patricia Melody
Jacqueline Melotik
Brian Melton
Matthew Melucci
Sr. Janice Memeyer
Rosily Menachery
Richard Menapace
Angela Menard
Louis Menard
Vivian Menard
Sr. Miriam Mendal
Douglas Mendenhall
Artoso Mender
Evita Mendez
Maria Mendez
SisterJuana Mendez SC
Michael Mendones
Ms. Bernandette Mendoza
Evangelina Mendoza
Rebeca Mendoza
RedElisa Mendoza

Mary Mendum
frank meneghini
Larry Menkes cSBA
Katherine Mensching
Mary I Mensik
Patricia Mensing
Jeff Ment
Katie Mentzer
John Meoska
Elaine Merchant
Charles Mercieca
Andrea Mercier
Sandy Mercurio
Lauren Meredith
Margaret Mergenhagen
Sr. Anne Meridiek
Robert Merikangas
April Meriweather
Flo Merkl-Deutsch
Nancy Merkle
Julie Merklin
Sr. Lorraine Merkowshi
Michael Merrican
therese merrill
Bill Merriman
Kathy Merritt
Michele-Marie Merritt
Mary Jo Mersmann
Anjaela Mertens
Sophie Mervoyer
Donna Merz
Marcus Mescher
MaryJane Meschino
Michael mesenbourg
Jack Mesick
Eva Mesina
Aly Mesomachi
Marcia Messado
Jean Messaros
Kim Messmer
Michael Messmer
Mary Mester
Laura Metcalf
Moriah Metcalf
sharon metcalf
mary-leonita metoyer
Miki Mettinger
Barbara Metz
Patrick Metz
Diana Metzler
hubert meunier
carol meyer
Christina Meyer
colonel meyer
Greg Meyer
Jenny Meyer
joe meyer
Juanita M. Meyer
karen Meyer
Lois Meyer
Martha Meyer
mary meyer
N Meyer
Ralph Meyer
Scott Meyer
Sister Patricia Meyer
Tom Meyer
Mandy Meyer-Hill
Claire Meyerhoff
Therese Meyerhoff
Dawn Meyers
Elaine Meyers
Kathi Meyers
Mary Meyers
Dianne Meyerson
Moria Meyivor
Mrs. Jerry Miante
Louise Micallef
Adriana Micciulla
Carol Micek

Louise Micek
Joseph Miceli
Richard Miceli
Sarah Miceli
James Mich
James Michalowicz
John Michalowski
Rev. John Michalowski
LISETTE MICHAUD
Robert Michaud
Terry Michaud
Myra I Michel
jim micheletti
Carol Michelini
Kathleen Michels
Lee Michelsen
Lisa Marie Michener
Monica Michewicz
Lawrence Mick
Evalee Mickey
Matthew Mickle
Therese Middendorf
Cecilia Midence
Vicki Miers
Jeffrey Mifflin
John Mihaila
Anna Mihalega
Joe Mihm
Sharon Mihm
Tressa Mikel
Alex Mikulich
Susan Milam
Theresa Milazzo
Linda Milco
Anne Mildenberger
William Mildern
Alan Miles
Amanda Milford-Joe
Susan Milheim
Arthur Milholland
Winnie Milillo
Linda Milinowiez
Ligia Milla
Jeremiah Millan
Joan Millea
Agnes Miller
Bev Miller
Bill Miller
Bob Miller
Breanna Miller
Carol Miller
Catherine Miller
Christian Miller
Dan Miller
Daniel Miller
Sr. Dorathy Miller
Elizabeth Miller
Gail Miller
Glenn Miller
Gregory Miller
Helen Miller
Jacob Miller
Jane Miller
Jason Miller
Jessica Miller
Joe Miller
Joel Miller
Joyce Miller
June Miller
Kendall Miller
Kevin Miller
Lucille Miller
Lynn Miller
Majida Miller
Mallory Miller
Marian miller
Mariana Miller
Mark Miller
Sr. Marlene Miller
Mary Miller
Mary Ann Miller
Nancy Miller
Pamela Miller
Patricia Miller
Patti Miller
Richard Miller
Robert Miller
Roberta Miller
Rosie Miller
Ruth Miller
Sandra Miller
Sister Andrea Miller

Sr. M. John Therese Miller
Stacie Miller
Sylvia Miller
Tami Miller
Teresa Miller
Sister Judy Miller CSJ
beth millet
C Millett
Kathleen Millett
Ashley Millette
Robin MIllis
Kenia Milloy
Harris Mills
Lois Mills
Patricia Mills
Susan Mills
Henry Millstein
Christine Milne
Martha Milner
Joy Milos
Sandra Milroy
Maureen Milton
Patricia Milton
marilou minarik
Robert Minchin
Judith Minear
teri minehart
Mary Minel
Mary Miner
Carolyn Minert
Michael Minerva
Emily Mingote
Ann Mini
susan minich
Audrey Minick
Joyce Minkler
Catherine Minnery
Josephine Minor
Linda Minshall
Gretchen Minton
Gretchen Minton
Edith Miozzi
Carlos Mira
James Miracky, S.J.
Kryssia Miranda
Nolan Miranda
Vince Miranda
Theresa Mirante
Vincent Mirigliani
Nasrene Mirjafary
John Mirsky
B Mirtich
Caroline Mirtich
David Mirtich
Kevin Mirtich
Laura Mirtich
Ann Mische
Judy Mische
Marie Mischel
Anna Misleh
Samuel Misleh
Susan Misleh
Joseph Misquez
Michael Missaggia
Sister Marcella Marie Missar SnddeN
Eleanor Missimer
Connie Mitchell
Constance Mitchell
Donna Mitchell
Ian Mitchell
Jonathan Mitchell
Joseph Mitchell
Joseph John Mitchell
Kathleen Mitchell
Miriam Mitchell
Patricia Mitchell
Ruth Mitchell
Sharon Mitchell
Susan Mitchell
Stefan Mko
Henry Mobley
Eileen Moceri
Jonne Mock
Dorothy Moczygemba
Paula Modaff
Mrs. Cassandra Modeste
Joseph Modica
Pamela Moehring
Mary Joyce Moeller
Hannah Moellering
Jeanne Moenk
Sr Jeanne Moenk

Mrs. Karen Morley
Mary Morley, SP
Kathleen Moroney
Frank Morra
Loretta Morreale
Amiennce Morrell
Max Morrell
Carolyn Morris
Chris Morris
Emily Morris
Grace Morris
joe&perla morris
Joseph Morris
Joy Morris
Linda Morris
Marianne Morris
Marie Morris
Mary Morris
Nancy Morris
Phyllis Morris
Renie Morris
Shirley Morris
Teouria Morris
Ellen Morris-Knower
Blanchette Morrison
Ellen Morrison
Linda Morrison
Andrea Morrissey
Kathleen Morrissey
Rachel Morrissey
Marina Morrone
Christine Morrow
Kristen Morsches
Michal Morsches
Eric Morse
Helen Morsnes
Michael Mortimer
William Morton
Nancy Mosburg
Christina Moseman
Christina Moseman
Celeste Moser
Mary Moser
Nylas Moser
Ryan Moser
Judy Mosesso
Margaret Mosher
Melanie Moshier
Carol Moskop
Susan Mospens
marsha moss
Mark Mossa
John Moszyk
Mary Beth Mothersell
Rebecca Motylewicz
Michael Moubarek
molly mount
Susan Mournian
Mickey Mouse
Juliet Mousseau
Kate Mouton
Mr. Brian W. Moxley
Francis MOY, S.J.
Kate Moylan
Patricia Moylan
Martha Moyle
Emily Moynihan
Sr. Suzanne Moynihan
Irene T. Mraz
Cheryl Mrazik
Sr. Mary Ann Mrellow
Leo Mronaghem
Rob Mrowka
Gregory Mucci
Marilyn Mucci
Anthony Mucciardi
John Muccigrosso
Sister Carol Mucha
Annette muckerheide
Brian Muckerheide
Barbara Muehler
Catherine Mueller
Cheryl Mueller
Elizabeth Mueller
Jenna Mueller
Sr. Marie Mueller
Maryann Mueller
Maureen Mueller
Helen Mueting
Silvia Mul±oz
Katharine Muir
Veronica Muir

Kathleen Mulaon
Roberta Mulcahy
Kathlyn Mulcahy OP
Allison Mulch
Chris Muldoon
Mary Ellen Muldoon
virginia mulhern
joann mulholland
Sr. Bernadette Mulick
Christine Muligulin
mary mulka
Mike Mulka
Roselyn Mulkey
Judy Mullally
Michael Mullally
Marilyn Mullane
Harriet Mullaney
Helene Mullaney
Sr. Marian Mullen
Sr. Marianne Mullen
Rose Mullen
MaryAnne Muller
Sr. Pat Muller
Martha Mulligan
John Mullin
Megan Mullin
James Mullins
Nancy Mullins
Peggy Mulloy
Sharon Mulloy
Sue Mulreany
Linda Mulrooney
M Mulroy
Paula Mulugeta
Karen Mulvey
Dwayne Munar
Margaret Munch
Sr. Paulanna Munch
Regina Munch
Bridget Munger
MaryAnn Munger
Jeanette Munich
Sr. Joan Munns
Gladys Munoz
Ed Muntel
Beth Munzel
Tony Muofer
Lindan Murad
Mary Muraski-Stotz
James Murdock
Lauren Murdock
Ms. Ruth Murhpy
Jean Murin
Sr. Jean Murin
Sr. Jaenelle Murmick
Angela Murphy
Ann Murphy
ANNE MURPHY
Bill Murphy
Bonnie Murphy
brendan murphy
Chris Murphy
dee Murphy
Diane Murphy
Eleanor Murphy
g murphy
GINNY MURPHY
James Murphy
Jennifer Murphy
Jonathan Murphy
Joseph Murphy
Kathleen Murphy
magaret murphy
Sr. Margaret T. Murphy
Mark Murphy
Michael Murphy
Mona Murphy
Monique Murphy
Patricia Murphy
Sally Murphy

Shirley Murphy
Sr. Roseanne Murphy
William Murphy
Maree Louise Murphy
Marge Murphy
Sr. Mary Murphy
Jean Murphy-Jacob
Mrs. Sue Murrary
Alice Murray
Anne Murray
Beth Murray
Daniel F Murray
Diana Murray
Esther Murray
michelle murray
Miriam Eileen Murray
P Edward Murray
Mr. Patrick Murray
Paulina Murray
Sr. Miriam Murray
Tammi Murray
Mr. Tom Murray
Yvonne Murray
Barbra Murtha
Helene Murtha
Cian Murty
Sarah Musa
Gail Musante
Nancy Muse
Peg Musegades
jeanne musewicz
Carlos Alberto Musfeldt
Jeanne Musgrove
David Musielewicz
Joseph Musonda
William Mussatto
Barbara Muth
Sr. Rose Anthony Mwathews
Irene Myala
Patricia Mydlow
Jeremiah Myer
Allen Myers
Ann Myers
Ann M Myers
Elena Myers
Fran Myers
Jeannine Myers
Joan Myers
Joseph Myers
mercy myers
Victoria Myers
Alison Myette
Sr. Grace Mylone
Teresa Mynko
James Myres, OFS
Rachel Myslivy
David N
Diana N
Rachel Nabavian
Martha Naber
Michael Nabicht
Marcella Nachreiner
Sr. Mary Evelyn Nagle
Kelly Ann Nagle-Zaik
Joan Nagy
Desiree Nagyfy
Richard Nahman
pooben naidoo
Lynn Nakvasil
catherine michael napier
Mary Therese Napolitan
Dan Napolitano
Nicholas Napolitano
Thomas Nappier
Mr. Thomas Nappier
ellen nash
Nora Nash
Sarah Nash
Susan Nash
Joseph Nassal
Annmarie Nasseo
Fr. Joe Nasser, S.J.
Shayan Nassrati
Catherine Nathnan
Christoph Nauer
Ms. Laurie Naughton
Lucille Naughton
Mr. Sean Francis Naughton
Christine Navarro
Olivia Nave
Matt Naveau
Meghann Naveau

Judith Navetta
Tom Navin
Marie-Luise Nazar
Maryann Nead
Carter Neal
Jennifer Neal
Sr. Mary Thomas Neal
Robin Neal
Kylie Nealis
Lina Nealon
Noreen Neary
Patricia Nee
Virginia Needham
Anne Neel
Sr. Hedwig Neff
Jane Nefores
Juliana Neg
Fernando Negro
Luciana Nehmer
Marianne Neidermann
Jennie Neighbors
Amelia Neil
Linda Neil
Linda Neil,CSJ
Karen Neiman
Marian Nejedlik
Ellen Nelson
Gregory Nelson
Janice Nelson
Karen Nelson
Kari Nelson
Linda Nelson
Mary Jo Nelson
Renee Nelson
Suzanne Nelson
Vicki Nelson
Sarah Nemechek
Mrs. Theodora Nemmers
Mr. Willam Nemmers
Elizabeth Nero
Elizabeth Nero
Karen Nerrie
Lauren Nese
Alyssa Neslusan
Sr. Ann Clare Nett
Katherine Neu
John Neuffer
Agnese Neumann
Agnesse Neumann
Bonita Neumeier
Anna Marie Neutrelle
Mary Nevins
Cynthia Newark
Jennifer Newberry
Sr. Anne Newcomer
Jimmy Newell
Noelle Newell
Vickie Newell
Julene Newland-Pyfer
Rebecca Newlin
David Newman
Edith P. Newman
Abby Newton
Carol Newton
Jennifer Newton
Laura Newton
Sr. Nellie Newton
Caroline Neyland
Patrick Neyland
David Ng
Kapya Ngoy
Christopher Nguyen
Emily Nguyen
gabarielle Nguyen
Gabrielle Nguyen
Jennette Nguyen
Kevin Nguyen
Tam Nguyen
Sr. Mary Theresa Nguyeu
Linda Nicholas
Gloria Nichols
m nichols
Pat Nichols
Suzanne Nichols
Anita Nicholson
Guille Nicholson
Madeline Nicholson
Rosemary Nicholson
Sara Nicholson
Watkins Nick
Annette Nickerson
Marilyn Nickol

James Nickoloff
Dr. Marilyn Nicohlas, CSG
Cynthia Nicola
Ivan Nicoletto
George Nicolini
Chris Nidel
Ann Niebrzydowski
Beth Niederpruem
Charles Niehaus
Tom Nieland
Bruce Nieli
Jenna Nielsen
Anne Niemann
Jo Niemann
Judith Niemet
Jenny Niemeyer
Susan Nierengarten
Carolyn Nieset
Auslyn Nieto
jen nieves
george niewrzel
Lucy Nigh
Trevor Nightingale
Maulyn Nikol
Barbara Nilenders
Rebecca Nimmons
connie ning
Marcia Niska
Henry Nistler
Halie Nitzsche
Alexis Nixon
Barbara Nixon
Carrie Nixon
Kamille Nixon
Jessey Niyongabo
Jacinta Njue
Stephanie Noakes
Mrs. Nancy Nobrega
Nicholas Noe
Sister Catherine Noecker
Marie Noel Noel
Josh Noem
Jacob Nolan
James Nolan
Karen Nolan
Kathleen Nolan
Lisa Nolan
M. Lucille Nolan
Madeena Nolan
Sr. Marcella Nolan
mary nolan
Patricia Nolan
Sandra Nolan
Sr. Carol Nolan
Carol Nolan, SP
Claire Nold-Glaser
Sheila Nolte
Honora Nolty
Sr. Beverley Nonte
Philip Noonan
James Noordyk
Pamela Nordhof
Doris Nordin
Susann Nordrum
Susanna Nordrum
Bruce Norfleet
Joan Norman
Anne Normandin
Maureen Normann
Mary Ellen Norpel
Catherine Norris
Marianne Norris
pat Norris
Roy Norris
Linda Norriss
Liisa North
Laura Northcraft
Deborah Northern
Amy Northrop
Sr. Florence Norton

Katherine Norton
Mary Norton
monica Nortz
Darlene Norwood
Frances Nosbisch
cynthia nossan
Paula Notarthomas
Anna Noteboom
Dawn Nothewhr
Dawn M. Nothwehr, OSF, Ph.D.
Patricia Noune
Richard Nourue
Diane Novak
Ginny Novak
Pamela Novak
Sheila Novak
steve novick
Margaret Novre
Helen Novy
Margaret Novy
Jessica Nowacki
Felicia Nowak
sister Nowak
Sr. Geraldine Nowak, osf
Gina Nowicki
Adrieene Noyes
Michael Noyes
Margaret Nuccio
Dede Nuckols
Rosemary Nudd
Dora Nuetzi
Diane Nufbz
Miriam Nugent
Sr. Rose Marie Nulsoth
Peggy Nulty
Colleen Nunes
Edmund Nunez
Juan Nunez
Lois Nunweiler
Cheryl Nuraina
Roberta J. Nutall
Gertrude Nuttman
Celeste Marie Nuttman, RSM
justine nutz
Karen Nykiel
Rich Nymoen

rose o brien
breda o driscoll
Caitriona O Hara
Kathleen O' Donovan
Brigid O' Shea
Ralph O'Bleness
Alanna O'Brian
Sr. Alice O'Brien
Bridget O'Brien
Sr. Donna O'Brien
Fr. Roger O'Brien
James O'Brien
Judy O'Brien
Kevin O'Brien
Martha O'Brien
Martin O'Brien
Mary O'Brien
Maureen O'Brien
Michele O'Brien
Nancy O'Brien
Patrick O'Brien
Sandra O'Brien
Sister Margaret Mary O'Brien
Virginia O'Brien
Sr. O'Brien
mary ellen O'bryan
Nancy O'Byrne
Maky O'Coddor
Ellen O'Connell
Helen O'Connell
Jean O'Connell
Mary O'Connell
Mary Ellen O'Connell
Nancy A. O'Connell
Patricia O'Connell
Ward O'Connell
Abigail O'Connor
Elizabeth O'Connor
Ellen O'Connor
Geraldine O'Connor
Gertrude O'Connor
Jane O'Connor
Jeanne O'Connor
John O'Connor
Kathleen O'Connor
Lindsey O'Connor

Margaret O'Connor
mary o'connor
Mary Jo O'Connor
Rosemary O'Connor
Ryan O'Connor
Debbie O'Daly Czernek
Irene O'Day
Kimberlee O'Day
Alaina O'Donnell
Anne Mary O'Donnell
Barbara O'Donnell
Barry O'Donnell
Diane O'Donnell
Kathleen O'Donnell
Mary Beth O'Donnell
Mary Helen O'Donnell
Sr. Patricia O'Donnell
SHIRLEY O'DONNELL
Sr. Mary Helen O'Donnell
Ted O'Donnell
Terry O'Donnell
Dierdre O'Donnell-Griswold
Casey O'Donnell-Silva
James O'Donnell, MD
Sister Katherine O'Donnell, RSM
Patricia O'Donoghue
Rosario Marie O'Donoghue
Dolores O'Dowd
Mary Alice O'Dowd
Sister Joan O'Dwyer
Sandra O'Flaherty
Peg O'Flynn
Alice O'Gorman
Kathleen O'Gorman
Josephine O'Grady
Margaret O'Grady
Moria O'Grady
Maureen O'Halloran
Pat O'Halloran
Elizabeth O'Hara
Elizabeth O'Hara
Maryann O'Hara
Maureen O'Hara
Sr. Aileen E. O'Hearn
Christopher O'Hora
John O'Keefe
Mary O'Keefe
Sr. Mary E. O'Keefe
Celia O'Kelley
David O'Leary
Jerry O'Leary
Imelda O'Luanaigh
Michael O'Mahoney
Lizzie O'Mahony
Anne O'Malley
Kathleen O'Malley
Kathleen O'Mara
John O'Neil
Emily O'Neil Lalka
Bernadette O'Neill
Kevin O'Neill
Nancy O'Neill
Peter O'Neill
Helen O'Regan
Mary Ann O'Reilley
Don O'Reilly
Mary T. O'Reilly
Maureen O'Reilly
Jeanne O'Rourke
Margaret O'Rourke
Alice O'Shaughnessy
Jane O'Shaughnessy
John O'Shaughnessy
Anna Belle O'Shea
Ms. Jeanne O'Shea
Nancy O'Shea
Brenda O'Sullivan
Emmanuel O'Sullivan
Joan O'Sullivan
Shawn O'Sullivan
Sr. Colleen O'Toole
Robert O'Toole
Sharon O'Toole
Carlotta Oberzut
Roger Oborn
Mary Ellen OBoyle
Mary Obradovich
Tamara Obrien
Diane Obringer
Florence Obrist
Kerry Obrist
ELLEN OBRYAN

Nancy OByrne
Matthew Ochalek
Jule Ochla
Jesus B Ochoa Jr
Gloria Ochoa-Andia
Sr. Jane Ockuly
B. OConnor
Diane OConnor
Edward OConnor
Julie OConnor
M OConnor
Paul OConnor
Bill Odell
Bonnie Odiorne
Brian ODonnell
Joan ODonnell
Maddy Odonnell
Sr. Celeste Odorizzi
Gloria Oehl
Sr. Geapeaun Oehleay
David Oen
Sarah Oglesby
Jolen Ogsbury
Ann Ohara
Sr. Mary Ohara
mary oherron
Polly Ohman
Pat Ohnemus
Corrie Oiom
BARBARA OKEEFE
William OKeefe
Frodo Okulam
Olufemi Oladokun
Mary Olarte
Megan Olarte
Barbara Older
Robert Oldershaw
Kevin Oldham
Adrian Oleck
MaryAnne Olekszyk
Oliva Olene
John Olin
Amy Oliphant
Joanne Oliphant
mary oliphant
Pat Oliver
Jon Olleany
Eileen Olooney
Sr. Colleen Olsen
Mary Olson
Shell Olson
Frances Olufs
Pedro Olvia
Marie Olwell
Joe Omalley
Martha Omalley
Mary OMalley
Sr. Frances Omodio
Frances Omodio
Molly Onders
Ellen ONeil
Kathleen ONeil
Bernadette ONeill
claire oneill
Margaret ONeill
patrick onono
Judy Opalach
Cynthia Opderbeck
Orinio Opinaldo
Queth Ora
Margaret Oravez
Joyce Orban
Nira Orbegozo
Rebecca Ordas
Aidan OReilly
Angelica Orellana
Peggy Orenstew
Ivy Orfanitopoulos
Colleen Orihill
Daisy Oriz

Angela Orlando
Marre Orlando
Phil Orlando
Santa Orlando
Rita Orleans
Sr. Mary Orleck
Sam Orlich
Jean Orlinski
Susan Orlowski
Mark Oropeza
Camille Orosco-Aronson
Catherine Orr
Susan Orr
Karen Orren
Karen Orsary
Dennise Ortega
Isaac Ortega
Luisa Ortega
Jane Ortgies
Thomas Orth
Ardy Ortiz
Arnery Ortiz
Eleana Ortiz
Ernesto Ortiz
Imelda Ortiz
Javier Ortiz
LIZ ORTIZ
Randy Ortiz
Vickie J. Ortiz, OFS
Sandy Ortolani
carol ory
Matildia Orzechanda
Lary Orzechouski
Anne osb
S. Theresa Hoffman OSB
Carole Osborn
Paige Osborn
Scott Osborn
Ellen Osborne
Olivia Osborne
Rev. Roert Osborne
Darcy Osby
Francis Oscadal
SIster Carol Ann OSF
Nancy Oshea
Nzstor Osonio
Tomasa Osorio
Susan Osredker
Simone Ossipov
Delores Ossowski
John Ostdiek
Judith Ostendorf
Judith Osterburg
Mark Osterhaus
Patricia Ostertag
Michelle Ostrowski
Claire Oswald
Suzanne Oswald
Patricia Otillio
Gertrude Otis
Veronica Otsuki
Jason Ott
Luke Ottaway
Grant Otte
Joan Ottman
Sheila Otto
Vicky Otto
Rev. Brent Otto, SJ
Liliette OUELLETTE
Jeanne Oursler
Linda Overbey
Marla Overholt
Carol Overman
Sr. Agueda Oviedo
Amy Owen
Jay Owen
Diane Owens
James Owens
Joan Owens
Sr. Pamela Owens
Sr. Pamela Owens
Rosemary Owings
Shawn Oy
Mary Charlene Ozanick
Anne Ozar
m p
Rosemary Paar
Karin Paasche
Martin Pable
Maria Pablo
Rebecca Pace
Rosemarie Pace

Stephen R Pace
Augie Pacetti
Jenny Pacheco
Rose Pacheco
Sr. Mary Margaret Pachucki
JP Pacis
Joshua Pack
Debra Packard
Patricia Paczosa
John Padberg
Ms. May Paddock
Corina Padilla
Ferdinand Padron Jimenez
Maria Paez Conlago
Bonnie Page
Renee Page
Lois Pagliaro
John Pagnani
Ronald Pagnucco
Madeleine Pahati
Sr. Rene Pairer
Mary Ann Pajakowski
MARYANN PAJOT
Dr. Gary Pakes
Mary Lou Pala
Juliana Palacio
Waldina Palacios
Peter Paladin
Mari Ann Paladina
Lisa Palanca
Miranda Palarea
Deborah Palatas
Syudee Palcora
Helen Palermo
Philip Palkert
Rosemary Palladino
Sr. Sheila Palma
Sofia Palma
Clare Palmer
Margaret Palmer
Margaret Palmer
Patrice Palmer
Mrs. Sarita Palmer
William Palmeri
Charlie Palmgren
Mary Palmquist
Sr. Mednl Palotul
Damian Palowitch
Bro. Brandon Paluch, SM
Benjamin Palumbo
Beverly Palumbo
Geraldine Paluszak
Lovina Pammit
Anita Panagakos
Sister Rita Panciera, RSM
Jennifer Panek
Andrew Panelli
Sr. Trinie Pangelinan
Sr. Mary Jocelyn Pangetti
Matthew Panhans
Camille Panich
Jean Panisko
Pamela Pannafino
ANN Pannier
William Pansire
Diana Pantalos
Jeffry Paoletti
Helen Paolucci
john papandrea
Sister Mariana Papiernik
Alfred Papillon
Sue Papp
Elizabeth Pappalardo
Michael Papson
Ronald Paquette
Richard Pardi
Mariano Pardo
Sister Michaeleen Pardowsky
Joan Pare
katherine paredes
Lynn Parent
Meri Parent
Margaret Parham
Sr. Carmen Paris
Sr. Francis James (a.k.a. Gail Ann) Paris
Helen Parish
Hope Parisi
Donna Park
El Park
Eynhez Park
Heidi Park

Yolanda Park
Margaret Park RSM
Bruce Parker
Carol Parker
Deirdre Parker
Sr. Eileen Parker
Janat Parker
Jen Parker
Kathleen Parker
Laura Parker
Marianne Parker
Marie Parker
Nancy Parker
Patrick Parker
Rob Parker
Rosemary Parker
Tristan Parker
Eileen Parker
Jan Parker OFS
Nancy Parks
Rita Parks
RM Parks
Stephen Parks
Sr. Christine Parks, csj
Mirand Parlcers
Mary Parlin
Annmarie Parmenter
Ingrid Parmeter
Maria Parmley
Mary Jo Parnell
HARVEY Parolari
Benjamin Parra
Joseph A. Parrella
M. L. Parrino
Marcella Parrish
Donna Parsons
Ronald Partridge
Mrs. Jean Paruilski
Anne Parzick
Maureen Pascal
Christina Pasco
Joseph Pasco
Sandra Pasco
Susan Pascoe
Marilynn Pasden
Michael Pashkevich
David Pasinski
Robert Paskey
Andrew Pasquali
Molly Pasquali
Paulette Pass
Sr. Joann Passeri
Martha Pastara
Luis Pastor
Cristina Pastor-Valverde
Diego Pastor-Valverde
Luis Pastor-Valverde
Monica Pastor-Valverde
Judith A. Pastore
Luisa Pastrana
Theresa Paszkieicz
Suzanne Pataki
Mary Kathleen Pate
Melanie Pate
William Patenaude
Suzanne Paterson
Rev. Richard E. Pates
Virginia Patrick
Jamie Patrick-Burns
E Patten
Darillyn Patterson
Debby Patterson
Marilyn Patterson
Mary Patterson
johanna patti
Josephine Patti
Lisa Patti
Eddie Patton
Shannon Patty
Arlene Patuc
Veronica Pauer

nancy pauken
Heidi Paul
T. Paul
Terri Paul
Mary Anne Paulford
Catherine Paulie
Cecile Paulik
Kathy Paulin
Sarah Paulos
Sarah Paulsen
Joyce Paulson
Sister Albertine Paulus, RSM
Annette Paveglio
Leanne Pavel
Michaelette Pavlik
Melissa Pavone
Susan Paweski
FLORENCE PAWLICKI
Rev. Dr. John Pawlikowski
Beth Pawuk
Steven Payne
Mercedes Paz
Domenr Pcmante
Mary Ji Peacock
Cathy Pearce
Mavis Pearman
tia pearson
Georges Pecguzac
Robert Pechacek
Marilyn Pechillo
Elizabeth Pechuzal
Michael Peddecord
Terry Pedersen
Emily Pedneau
Janet Pedneau
Bob Pedretti
Maria Carmen Pedroza
Mary Peer
John Peeters
barbara peggs
John Peisei
Kathryn Peiser
Dan Peitmeyer
Rev Edward Peklo
Emily Pelayo-Yuson
Patrick Pelegri-O'Day
Sr. Marian Pelikan
Mary Pelikan
Clare Pelkey
Alice Pellard
Linda Pellegrini
Anne Pellegrino
Jane Pellegrino
Julie Peller
Tyra Pellerin
Mary Jane Pelletier
Regina Pellicore
Derek Peloquin
Josephine Pelster
Jacke Peltz
Kenya Pena
MARK PENA
Rebeka Pena
Rosalie Pena
Vangie Pena
Karen Pender
Siobhan Pender
Mary Pendergast
diane pendola
Marilyn Pendola
Kathryn Pendor
Douglas Pengilly
Clarice Peninger
Carmela Pennacchio
Patrick Pennell
Mary Ann Penner
Sr. Ann Pennington, SFCC
Joan Penzenstadler
Dawn Pepera
Gemma Pepera
Alejandro Perea
Palmira Perea
Jeanne Pereen
lucy pereira
Rosario Perete
Beatrice Perez
Brenda Perez
Cecilia Perez
Chrystal Perez
Eimer Perez
Gil Perez
Giovanni Perez

Jeanne Perez
Laura Perez
Sandra Perez
Vicky Perez
Vilma Perez
Yesica Perez Rico
marisa perez-garcell
Andrew Perillo
Leanora Perillo
Sladjana Perisic
Rosemary Perisich, snjm
Guy Perkins
Jo Ann Perkins
Marilyn Perkins
PM Perkins
Vickie Perkins
Sr. Mary C. Perkinson
Christine Perlin
Nicolas Pernas
Jeanettte Peron
Alysia Perry
Brendan Perry
Carolyn Perry
Catherine Perry
Christine Perry
NANCY PERRY
Tim Perry-Coon
Yuka Persico
Palbelicia Pert
Pam Pert
Sandra Pesce
Peter Pestka
Katerina Pestova
Michelle Peter
Ann-Joyce Peters
D Larissa Peters
Daniel Peters
Gloria Peters
Katherine Peters
Patric Peters
Patric Peters
Phylis Peters
Sr. Loretta Peters
Fr. Vincent Petersen
Teresa Petersen
Michael Petersmith
Antoinette Peterson
Cathy Peterson
Donna Peterson
Greg Peterson
Jane Peterson
John Peterson
Joy Peterson
Kathleen Peterson
Sister Ruth Margaret Peterson
Theresa Peterson
Julia Petipas
Patricia Petit
Joan Petito
Donald Petkash
Jim Petkiewicz
Mary Petrilli
Jodi Petrinovich
George Petrisko
Georgette M. Petrone
Caroline Petrozzo
Sr. Rita Petrruziello
Jennifer Petruso
Joan Petruzzelli
Melissa Petruzzello
Sr. Louella Petry
Mary Pettek
Ms. Mary Beth Pettek
Michael Pettinger
David Pettit
Gina Petty
Laurie Petty
Jane Petzel
Arleen Peyton
Patricia Peyton
Miniam Pez
Sarah Pezold
Fr. Neil Pezzulo
Gertrude Pfahler
Mariam Pfeifer
Sr. Mary Antonee Pfenning
Danielle Pfister
Myra Pfisterer
Carl Pflug
Virginia Pfluger
Rosemary Pfreundschuh
Mrs. Grace Pham

Sr. Huong Pham
My Huong Pham
C. Marie Phegley
Jean Phelan
Margaret Phelan
Mary Alice Phelan
Sr. Elizabeth Phelps
Mack Phelps
MARLENE PHELPS
Mariellen Phelps,OP
CECIL PHILIP
Domichan Philip
Nancy Philippart
Sr. Mary Agnes Philips
Cheryl Phillips
Conor Phillips
Elaine Phillips
George Phillips
Helen Phillips
Jacqueline Phillips
Sr. Jacqueline Phillips
Jeri Phillips
Jude Phillips
Meg Phillips
Patricia Phillips
Shari Phillips
Tomas Phillips
Sarah Philo
jessica philpott
James Phippard Esq.
Antonia Phipps
Lucille Phipps
Paolo Pian
Pat Piazza
Mary Pica
Therese Picado
Therese Picard
G Picardi
Ann Picaros
Vanessa Piccorossi
Clotilde Pichon
Marie Pickard
Harold Pickering
Kelly Pickering
Caroline Pickolick
Anna Picone
Gina-Maria Picone
Jeff Picou
Loretta Picucci
Colleen Pidgeon
Elizabeth Pienta
Virginia Pieper
Bro. Tom Pieper, SM
Brian Pierce
Catherine Pierce
Ruth Pierce
Aaron Pierre SJ
Daniela Pierro
Kathryn Pierson
Marilyn Pierson
Claire Pierz
Suzanna Pieslak
Nancy Pietrulewicz
Kate Pifer
victor pignata
Sam Pignato
Jacqueline Pigott
Patrick Pigott
Mark Pihalan
Martine Pijanowski
Andrew Pike
Arlene Pike
Ashley Pike
Michael Pikuleff
Mr. Joseph Pilato
Jane Pilgrim
Frank Pilholski
Sr. Dorothy Pilkington
Ina Pillar
Barbara Piller

Sr. Paula Therese Pilon
Jack Pilson
Joan Pilz
Rosemary Pim
Mary Pimppier
Philp Pinczewski
Rev Jack Pine-Savage
Noreen Pingley
Deanna Pini
Sr. Catherine Pinkerton
Katharine Pinto
Matilde Pinto
Patricia Pinto
Sheri Pinto
Thomas Pipal
janna piper
Grahm Pipper
Sr. Michael Pirainor
Paul Pisano
Gene Pistacchio
Rev, Gene Pistacchio, ofm
Jayne Pitchford
Jeanne Pittari
Magda Pittaro
barbara pitts
Don Pitts
Sandra Piwko
Victoria Pizzini
Sr. Mary Placidus McDonald
Casey Plackett
Cecilia Plante
Sister Mary Anne Plaskon
Paula Plaszek
Catherine Pleil
Joschim Pleil
Marueen Pleil
James Pleitner
Fran Pletschet
Maria Plevris
Michael Plevyak
Estella Plewes
Sister Veronice Plewinski
Susan Plews SSND
Donna Plutschuck
Brieaux Poche
Sr. Ellen Poche
Teresa Poche
joseph podorsek
Mary Podzimek
Dolores Poelzer
Mary Anne Poeschl, RSM
Regina Poeske
Joelle Poettgen
Pietro Poggi
Glennie Pogue
Ben Pohl
Tony Pohlen
mary pohlman
Maxine Pohlman
Erast Pohorylo
Robert Poignant
Kimberly Pointer
Jenny Poitrad
Jerry Poje
Bonnie Pokorny
Carol Polanskey
Mary Polanskey
Marguerite Polcyn
Katherine Polednik
Angela Polk
Owen Pollack
James Pollard
PATRICIA Pollard
Martha Polletta
Sr. Christine Pologa
Evelyn Polvere
Pierpaolo Polzonetti
Gigi Pomerantz
Cynthia Pon
Nora Ponels
Timothy Ponisciak
Nancy Ponzetti
Sonya Ponzi
Linda Poole
Pat Poole
Sr. Gene Poore
Father L. Michael Pope, S.J.
Sandra Poplawski
Judi Popovich
Dorothy Poppe
Chris Poppelwell
gwen poppins

Martha Popson
Patricia Pora
Brittni Porath
Joan Porco
Elizabeth POREBA
John Poreba
Alicia Porteda
Ann Porter
Barbara Porter
Cinta Porter
Co-burn Porter
Eva Porter
Joelle Porter
Kathleen Porter
Kyle Porter
Susan Porter
Tim Porter
Wayne Porter
Sharon Portwood
Barb Portzen
Jim Posakony
Constance Pospisil
David Possant
Hollace Possant
Georgette M. Potrone
Marie Pottebaum
Mark Potter
Jeff Pottinger
Susan Potts
Michael Potvin-Frost
Patricia Poulette
Arthur Poulin
Cheryl Poulin
Michael Poulin
Irene Powch
Colleen Powell
Dorthy Powell
Elizabeth Powell
Emilie Powell
James Powell
James Powell
Michael Powell
Anne Power
Carol Power
Jacqueline Power
Michael Power
Wanda Power
Elizabeth Powers
Ms. Gianna Powers
Maureen Powers
MB Powers
Mimi Powers
Ruth Mary Powers
Ruthmary Powers
Catherine Poynton
Donal Pradeep
Linda Prado
Macrina Prado
ERIN PRAIS-HINTZ
Maria Prakoso
Joseph Pranata
Annie Prasad
Christina Pratt
Christine Pratt
Lou Pratt
Joe Prauara
Nick Pravata
Marilyn Pray
Dori Prck
Ava Preacher
Marie Prefontaine
Claudette Preisinger
John Prellwitz
Nancy Prenatt
Sr. Catherine Prendergast
Thomas Prendergast
Barbara Prenovost
Clare Pressimone
Rose Preston
Theresa Pretlow
jennifer prevost
Anne Prevou
Duane Pribula
Fr. Duane Pribula
Ross Pribyl
Cecilia Price
Rhenda Price
Sr. Mary Price
Stuart Price
Thomas Price
Frank Prideaux
Jean Prieboy

NDiane Prince
Patricia Prince
Thomas Prince
Heather Prior
Patricia Pritchard
rita pritchard
Ms. Ali Pritchett
Judith Prizio
Pablo Proano
Elizabeth Procko
Donna Proctor
Sr. Kimberly Prohaska
Carol Prokop
Anne Prokosch
Rosal8e pRONSATI
Rosalie Pronsati
Phedeline Prophete
Margaret Proskovec
Max Prosperi
Jane Proulx
Cathleen Prout
Tara Prout
Azelcie Providence
Craig Provost
Sister Sylvia Provost
Melissa Prudhomme
Amber Pruitt
Stephen Pruyn
Mary Pry
Cathy Prylucki
Dario Puccini
Sister Alma Pukel
Tessa Pulaski
Joyce Pulich
Deanne Puloka
John Pulvino
Mary Pung
Kristen Pungitore
Sister Lucille Ann Puntillo
Erlinda Punzalan
Claire Puppos
Tom Purekal
Deborah Purfield
Kathleen Purser, GNSH
Sherri Putman
Nina Pykare
Barbara Pyles
Tish Pyritz
Sr. Joan Pytlik, D.C.
Inja Pyum
Scott Pyzik
Esther Quantrill
Marianne Quantz
Matt Quattlebaum
Irene Quenada
Joan Quenan
Charles Quick
Lance Quick
Anna Quigley
Maureen Quigley
therese quigney
Jocelyn Quijano
Carlos Quijano SJ
Yvonne Quilenderino
Magdalena Quilichini
Rose Quilter
Chuck Quilty
Barbara Quinby
Barbara Quincey
Mary Quinhan
Joann Quinkert
Margaret Quinlan
Mary Quinlan
barbara quinn
Catherine Quinn
Evelyn Quinn
Grace Quinn
James Quinn
Joan Quinn
Kathleen Quinn

Mary Quinn
Sister Joan Quinn
Ariana Quinonez
Rollande Quintal,SSA
Adrianna Quintero
Kimberly Quintero
Arlene Quirk
Margaret Quirk
Adrienne Quirolo
Lynda Quistorff
Maria Quito
alexis qurioz
George R
Jennifer R
L R
Linda R
Paul R.
Sr. Maria Rabalais
Michael Rabbitt
Isabel Rabbon
William Raben
Margaret C. Rabideau
Elyse Raby
Luisa Raby
Margery Race
Sr. Marianne Race
Billie Raczkowski
Cynthia Radford
Angela Radicia
Caitlin Radjewski
Paula Radmacher
Mark Radziejeski
mariette raes
Larry Rafey
Margaret Raffa
Julie Rafferty
Marie Raffio
Michael Raffio
Loretta Rafter
Teresa Raftery
Mary Ragland
Christine Ragosta
Mary Ragsdale
Cara Ragusa
Mary Rahmatulla
Fran Raia
Kathleen Raible
Ruth Raichle
Mary Railing
Rosella Rainbolt
Carol Rainey
Cindy Rains
Katie Rains
Craig Rakela
Andrea Ralston
Maria Ram
Sr. Anne Ramagos
Celia Ramirez
Fernanda Ramirez
Frank Ramirez
Geri Ramirez
tulio ramirez
veronica ramirez
Digna Ramirez-Lopez
Jose Ramirez-Rico
Sr. Elyse Marie Ramirez, OP
Teri Raml
Angenis Ramlogan
Becky Ramlogan
Veronica Ramlogan
Richard Ramm
Sally Ramm
Sela Ramming
Enrigueta Ramos
Laura Ramos
Maripaz Ramos
Walter Ramsey
Matthew Rancilio
TIM RAND
Carolyn Randall
Dorothy Randall
Geraldine M. Randall
Margaret Randall
Ricard Randall
Charles Randolph
Doug Randolph
Shatina Randolph
Bob Rankin
Joe Rankin
Sr. Nancy Rannizes
Fran Ransom
Allan Ranusch

Charlene Rapinz
Karen Rapota
Sr. Barbara Rapp
Mary Anne Rapp
Willa Rapp
Linda Rapuano
Samuel Raqmos
jaclyn Rarick
Rev. Joseph Rascher
Jan Rashid
Christy Raska
Liam Raska
Jennifer Rasmussen
Margaret Rasmussen
Patricia Rass
Joseph Rastatter
Cathy Rathkr
Carol Rathsen
Dr. Theresa H. Ratti
John Rau
William Rauckhorst
Sr. Genevieve Raupp
Angela Rausch
ROBERT RAUSCH
Mary Raven
Bernadette Ravenstahl, SSND
Kate Ravenstein
mekala ravishankar
Susan Ravoie
Gulnar Rawji
Kaitlin Rawley
Christine Raymond
James Raymond
Linda Raymond
James Raynak
Loretta Read
Peter Read
Richard Ready
Mary Reagan
Julia Reagin
Julia Reagin
Siobhan Reaick
Helen Reardon
Brian Reavey
Carleen Reck
Jo Ann Recker
Ken Recker
Doug Red
Angela Reda
John Rede
Katelyn Redelman
Bianca Redeno
Barbara Reder
Sr. Johanne Redersen
Susan Redieck
Gina Redig
Kathy Redig
Kimberly Redigan
Joyce Reding
Josie Redington
Maryellen Redish
Joanne Redmond
Marybeth Redmond
Colleen Redoutey
Ann Redpath
Michelle Reeab
Bonnie Reed
Jeanne Reed
Laura Reed
Ken Reed-Bouley
Anita Rees
Donna Rees
Karen Rees
Warren Rees
Georgia Reese
Kenneth Reese
Mary Reese
Matthew Reese
Toby Ann Reese
Deborah Reeves
Judith Reeves
Katia Reeves
Larry Reeves
Helen Refed
Laura Refed
Adel Regan
Ann Regan
Caitlin Regan
Catherine Regan
Janice Regan
kevin Regan
Peg Regan

Richard Regan
Sr Claire Regan
Susan Regan
Anna Marie Reha
Carrie Rehak
Jean Rehl
Mary Rehmann
Sarah Reib
Deanna Reichardt
Frances Reichenberger
John Reichert
Theresa Reichley
Sr. Maqres Reichlin
Rose Ann Reichlin
Lisa Reid
patricia reid
Virginia Reid
Rosemary Reier
Sara Reifenberg
Toby Reiff
Betsy Reifsnider
Corinne Reil
Barbara Reilly
Cathy Reilly
helen Reilly
IRMA REILLY
John Reilly
Kathleen Reilly
Sr. Kathleen Reilly
Linda Reilly
Sr. Lorena Reilly
Michael Reilly
Megan Reilly Buser
Katie Reily
Sister Betty Reinders
Amy Reinert
Susan Reinhardt
Celeste Reinhart
Robert Reinhart
Justin Reis
Ruth Reischman
Jeffrey Reiss
ann reitzel
Timothy Reker
Jane Relopez
Mary Relyea
Honora Remes
Pierrette Remillard
Daniel Remily
Betty Renard
Karen Renaud
Mary Beth Renaud
Noraleen Renauer
Georgina Rendon
Amy Rendziak
Bev Rengert
Constance Renker
Frances Renn
Anne Renner
Gwynne Renner
Jeff Renner
Jeri Renner
Nick Renner
Anne Renner-Evans
Zoe Rennie
Matt Reola
Sr. Joan Repka
Kathleen Repko
Elan Rers
Ronald Resch
Carolyn Resende
Monica Restivo
Maria Restivo-Adams
Clara Restzepo
Jorge Restzepo
Renato Retoah
Jeanine Retzer
joanne reuter
Margaret Reuter
Linda Rexroad

amy reyes
Angela Reyes
Julie Reyes
Victoria Reyes
Patrick Reyna
Jean-FranÌ€ois REYNAUD
Brian Reynolds
Janet Reynolds
Kathleen Reynolds
Kellie Reynolds
Kiera Reynolds
Melissa Reynolds
Sr. Patricia Reynolds
Sharon Reynolds
Linda Reynolds-Burkins
Ann Terese Rezniccek
Willer Rhamchn
Alice Rhinesmith
Kristi Rhoads
Brendan Rhoan
Jonella Rhoda
Kathy Rhoddy
Anna Marie Rhodes
Mary Jane Rhodes
S_âawomir RÌ___ycki
Sister carla Riach
Nicolas Riani
Teresa Ribadga
Brent Ribble
Chad Ribordy
Cherry Ricafrente
Dr. Fred Ricci
Stephanie Riccobene
Ms. Stephanie Riccobene
Beth Rice
Jay Rice
Jima Rice
Joseph Rice
Laura Rice
Lincoln Rice
Mary Rice
N. Rice
Sister Mary Catherine Rice
Kristie Rich
Sister Therese Rich
Gwen Richard
JoAnna Richard
Sr. Josephine Richard
Aleksandra Richards
Carolyn Richards
Danny Richards
Tyler Richards
Ms. Erin Richardson
Gerald Richardson
John Richardson
Julianne Richardson
Nancy Richardson
Sharon Richardt
Debbie Riches
Jean Richie
Sr. Roberta Richmond
Richard Richter
Patricia Rickard
Rita Ricker
Steve Rickson
Margaret Riconda
Siobhan Ridley
Chris Ridmann
Mary Riedl
Antonetta Riedmuller
Peggy Riehl
maurice riendeau
Sr. Geraldine Riendera
Sandra Riesberg
Sr. Judith Riese
Francesca Rieth
Kathleen Riethmann
Sr. Caraly Riethorn
Mary Lou Rife
Hannah Riffle
Sr. Martha A. Rifner
Cecilia Rigaud
Libby Riggs
Carol Riha
Maralyn Rikel
Assunta Riley
Donna Riley
harry riley
John Riley
Marilyn Riley
Maureen Riley
Melissa Riley

Victoria Riley
Mr. Richard Rill
Kathleen Rimac
Judith A. Rimbey
Audrey Rinaldi
Giuliana Rinaldo
Kristen Rinaldo
Lori Rinchiuso
Sr. Marilyn Ring
Kristen Ringdahl
Rita Rings
Dr. Sally J Rings
Joseph Rini
Theresa Rinkoski
Megan Rinzel
Sr. Rose Marita Riordaan
James Riordan
Mary Riordan
Aurea Rios
Maryhelen Rios
Lucia Rios de Hainan
Michael Ripberger
Charia Ripple,SSND
Constance Ripple,SSND
Eileen Marie Ripsin
Christoforus Bayu Risanto
Peter Rispin
Eric Ristroph
Eudces Ritas
Cristine Ritchey
Louis Ritchie
Carly Ritter
Sr. Mary Joseph Ritter
Mr. Mark Rivard
Natalie Rivard
Cynthia Rivera
Fhilly Rivera
January Rivera
Javier Rivera
Jose Rivera
Jose Rivera
Minerva Rivera
Patty Rivera
Sergio Rivera
Shaina Rivera
Virginia Rivera
Yolanda Rivera
Jerry Rivers
Sr. Linda Rivers
Petra Riviere
Toufic Rizk
Karen Rizzo
Rosaria Rizzo
Linda Roach
Sr. Edith Roahrig
Rose Roales
Mary Ann Robalino
Stephanie Robalino
steve robalino
Cathy Robbins
Patience Robbins
Richard Robbins
David Roberson
Nancy Roberson
Linda Roberto
Ann Roberts
BARBARA ROBERTS
Beverly Roberts
Elizabeth Roberts
Lana Roberts
Laney Roberts
maggie roberts
Mark Roberts
Patrick Roberts
Ramona Roberts
Rose Roberts
Sr. Rose Roberts
Ruth E. Roberts-Shepherd
Anna Robertson
Juanita Robichaud
Ambra Robinson
Anne Robinson
Carol Robinson
Chris Robinson
David Robinson
Eileen Robinson
gary Robinson
Jillian Robinson
John Robinson
Joseph Robinson
Kailene Robinson
Mark Robinson

Patricia Robinson
paul robinson
Rita Robinson
Sandy Robinson
Sean Robinson
Joan Robishaw
Gonzalo Robles
Katherine Rocca
Julia Rocchi
Anna Rocchio
Elizabeth Roces
Jeannine Rocha
Rose Marie Rocha RSM
Dan Roche
Sr. Denise Roche
Diane Roche
Greg Roche
Laurie Roche
Veronica Roche
C S Roche Victor
Helen Rocker
Mary Roch Rocklage
Angela Rocks
Mary C Rocks
Graciela Rockwell
Paul Rockwell
Pamela Roda
Kevin Roddy
Sally Rode
Louis Rodemann
Sandra Rodemyer
HENRY RODGERS
Tomas Rodrigez
John Rodrigues
Robin Rodrigues
Adaliss Rodriguez
Augustine Rodriguez
Daniel Rodriguez
Elisabet Rodriguez
Emilia Maria Rodriguez
Gerardo Rodriguez
Kathryn Rodriguez
Lito Rodriguez
Rebecca Rodriguez
Sorye Rodriguez
Virginia Rodriguez

Maureen Roe
Nardzo Roeda
Florence Roeder
Mary Roeder
Katelyn Roedner
Cecile Roeger
Anne Roell
Elsa Roellig
Michael Roemer
Elizabeth Roeper
Janet Roesener
Peggy Roeske
Jo Roesslein
Erica Roethel
Barbara Rogan
Anne Rogers
Barb Rogers
Carol Rogers
Cathy Rogers
Eric Rogers
James Rogers
Janette Rogers
john rogers
Mary Rogers
Patricia Rogers
Richard Rogers
Sampson Rogers
Mrs. Shirley Rogers
Kathleen Rohlfs
Carol Carol Rohloff
Stephanie Rohrer
Geraldine Rohrkemper
Jennifer Rojo
Regina Rokosny

Susan Roland
Rita Rolenc
Cristin Rolf
Evana Tanya Rolf
Veronica Mary Rolf
Patricia Rollinds
Myrt Rollins
Madeline Romaine
Jessy Roman
Marilyn Roman
Sr. Marilyn Roman
Lizette Romano
Russell Romano
Joanne Romano, Ed.D.
Ermite Romelus Miller
Clare Romeo
L Romero
Marcy Romine
Sr. Mary Roml Heckay
Janet Rommel
Edwin A Rommel III
Maria Rommez
Mary Romo
David Romportl
Rita Rompre
Gloria Ron-Fornes
Marian Ronan
Marian Ronan, Ph.D.
Dorothy Ronayne
Diane Rondeau
Clare Ronzani
Alice Rooney
Sr. Alice Rooney
Edward Rooney
Hannah Rooney
Sr. Helen Rooney
Nora Rooney
Pat Rooney
Patrick Rooney
Sara Rooney
RoseMaria Root
Corenna Roozeboom
Melinda Roper
Maria Rormirez
Susan Rorris
Patricia Rosales
Katiuska Rosaro
Maritza Rosas
Mr. Albert Rosati
Mrs. Joyce Rosati
Janice Rose
Jodi Rose
Margarita Rose
Michelle Rose
Ms. Peggy Rose
Sister Sharon Rose
Ruth Rosenbaum
Charles Rosenberg
David Rosenthal
Sr. Gerilddin Roseraki
Kevin Rosetti
Geraldine Rosinski
Sister Geraldine Rosinski
Daniel Rosmann
Amanda Ross
andi ross
Barry Ross
Blanca Luz Ross
Bruce Ross
Claude Ross
Daniel Ross
Jim Ross
Kate Ross
Lisa Ross
Melanie Ross
Susan Ross
Taylor Ross
Karen Rossen
Chrisha Rossi
Sr. Elizabeth Rossi
Natalie Rossi
Patti Rossi
Philip Rossi
Phylis Rossi
Celeste Rossmiller
Jennifer Roth
Andre Rothschild
Chris Rotola
Jason Rott
Beatrice Rouamba
Patricia Rouff
Sarah Rouhier

Sister Mary Rouleau
Dr. Maria Rouphaic
patrick rousseau
Ancilla Roussel
Cathy Rowan
Roberta Rowan
Troy Rowan
Gail Rowe
Jodi Rowe
kathleen rowe
Sr. Brenda E. Rowe, RSM
David Rowell
Dee Rowland
DorothyAnn Rowland
Mary Rowland
Kris Rowley
Sue Roxandich
Annette Roy
Barbara Roy
Cornelia Roy
Lorry Roy
Sharon Roy
Mary Rozzano
Nancy RSM
Maureen Ruan e
JANET LYNN RUBBO
Sister Fidelis Rubbo
Adolfo Rubio
renee rubio
silverio rubio
Laurentia Ruby
Ana Rubyn
Sr. Mary Lou Rucck
Pat Ruck
Thomas Ruda
Tom Ruda
Carol Ruddell
James Rude
Samantha Rude
Kristin Rudenga
Kristin Rudenga
Patricia Rudner
Bernadette Rudolph
PA David Rudolph
Elisha Rudolph
Sr. Judith Rudolph
Sister Jane Rudolph
CARRIE RUEL-FLORES
Stephen Ruemenapp
Sr. Rosalie Ruesewald
Martha Ruff
Jessica Ruffin
Janet Ruffing
Angela Ruffolo
Daniel Ruggaber
Thomas Ruggaber
Jo Ann Ruggiero
Joe Ruggiero
Mary Ann Ruggiero
James Rugolo
Dorothy Ruhl
Anna Ruiz
George Ruiz
marina ruiz
Mary Ruiz
Robert Ruiz
Romi Ruiz
Juan C Ruiz Guajardo
Sr. Catherine Rulal
Martha Rumian
Sr. Ann Rummer
Keith Runion
Joyce Rupp
Todd Ruppert
Eduardo Rurda
Catherine Rush
JoAnn Rush
Claudia Rushlow
Janice Rushman
Val Rusin
Mrs. Beatrice Russell
Elizabeth Russell
Sr. Ellen G. Russell
Dr. Jeffrey Russell
Karen Russell
Louise Russell
Marie Russell
Patricia` Russell
rosemary Russell
Sylvia Russell
Tess Russell
William Russell

Wilson Russell
Barbara Russo
Christine Russo
Sr. Maryan Russo
Mati Russo
Paul Russo
Richard Russo
Rosemary Russo
Sister Marie Russo
Sister Mary Louis Rustowicz
Kathryn Ruth
Sandra Rutkowski
Julius Rutschmann
Nancy Rutschmann
Jeremy Ruzich
Maryanne Ruzzo
Alice Ryan
Anna Ryan
Beth Ryan
Brendan Ryan
Deidra Ryan
Elise Ryan
Erin Ryan
Sr. Irma Patricia Ryan
Rev. James F. Ryan
Janice Ryan
Joanne Ryan
John Ryan
Judith Ryan
Kaitlyn Ryan
Kyle Ryan
Mary Ryan
Michelle Ryan
Patricia Ryan
Sr. Rara Ryan
Robert Ryan
siobhan ryan
Teresa Ryan
Thomas Ryan
William Ryan
Colleen Ryan Mayrand
Lisa Ryba
Marianne Ryczek
william ryder
Barbara Ryland
Diane Rypeclrt
Isaac Rysdahl
Kathleen Ryzewski
Judy Rzeszutko
D S
Guna S
Michael S
Tom S
Beth Saba
Cynthia Sabathier
Sr. Cynthia Sabathier
Nicole Sabatini
Kathryn Sabella
Laura Sabine
Edward Sabo
Michael Saboe
Joyce Sabol
Patrick Sabol
Cecelia Sacca
Thomas Sacerdote
Susan Sachs
Susan Sack
Joseph Sackett
Thomas Sadler
Matthew Sadlowski
Theresa Saetta
Kathleen Saffa
Frank Sahagian
Georges Sahd
Christina Sahhar
Nouasra Sahia
Frank Saia
Kathleen Sainato
Estrella Sainburg
Claudia Saitz

Pegah Sajedi
Lise Sajewski
Nanako Sakai
Philip Sakimoto
Laura Salanitro
Elaine Salapatas
Barbara Salapek
Barbara Salas
Enrique Salas
Kathleen Salas
Cora Salazar
Lisa Salazar
Mary Salcedo
Norene Saldana
Jennie Sali
Sadie Salib
Paula Sallas
Heidi Sallee
Barbara Sallettes
Emily Sallitt
Joseph Sallitt
Marielle Sallo
Sr. Carmel Maria Sallus
Lauren Sallwasser
Lisa Sallzamn
Rev Frank Salmani
Olivia Salmem
Dr. John Salmen
Erik Salmi
Elizabeth Salmon
Matt Salo
Lena Salois
Michelle Salois
Daniel Salomon
Luis Salomon
Stephanie Salter
marina Saltman
Anna Saltzman
Ann Salvati
John Salvati
Vincent Salvi
Michelle Salyer-Sullivan
Ann Sam
kathy samanns
barbara sambrano
Marilyn Sammons
Susan Sammons
Courtney Sams
Elizabeth Samson
Renee Samuelsen
marietta samz
Pamela San Miguel
John Sanborn
Albert Sanchez
Caroline Sanchez
Citlalli Sanchez
Elaine Sanchez
Jesse Sanchez
Jose R Sanchez
Monica Sanchez
Rene Sanchez
Shawn Sand
Kevin Sandberg
Walter Sandell
Sr. Mary George Sanderak
Patty Sanders
Paul Sanders
Phyllis Sanders
Victoria Sanders
Barbara Sandman
Karen Sands
Mary Sandusky
Lisa Sanetra
Julie Sanford
William Sanford
Thomas Sanger
Susan Sanocki
Barbara Sansone
Sheila Sansosti
Carmen Santago
Toni Santalli
Kathryn Santana
Sammy Santana
Peter Santandreu
Maria Santelli
Israel Santiago
Wilfredo R. Santiago
Jean Santopatre
Marguerite Santopietro
Clara Santoro
Michelle Santos
Miguel Santos

Ricky Santos
Sister Anne Marie Saphara
Terry Sapinski
Robert Sapp
Michael Sarabia
Emily Sarazyn
Angela Sarcone
Ann Marie Sardineer
josephine sardo
Mimi Sardou
Audrey Sargan
HELEN M. SARGEANT
Donald Sargent
Mary Sargent
Louise Sarra
Debra Sartori
Sr. Margaret Sass
Cindi Sassmanshausen
Alice Sather
Sr. Ruth Sattler
Miss Noemi Sauceda
Ervin Sauer
Joe Sauer
Susan Saul
David Saunders
Peggy Saunders
Terri Saurs
Michael Sauter
Jutrabia Sautos
Emelia Sautter
Debra Sauvage
Wyatt Sauvage
Kathleen Savage
Kitty Savage
Maria Savage
Carol Savant
Deidre Savino
Barbara Savoca
Christelle Sawicki
Caryl Sawyer
Caryl Sawyer
Jennifer Sawyer
Karen Sawyer
Marie Sawyer
Marta Sayeed
Mary Rita Sayers
Valerie Sayers
Patricia Sayre
Rev. Warren Sazama, SJ
Marilyn Sberg
Joellen Sbrissa
Joellen Sbrissa, CSJ
Father Paul Scaglione
Megan Scali
Elizabeth Scanlan
Laura Scanlan
Margaret Scanlan
Sr. Margaret Scanlan
Pat Scanlan
barbara scanlon
Elizabeth Scanlon
Kathleen Scanlon
Mary Catherine Scanlon
Theresa Scanlon
William Scannell
Gene A. Scapanski
Ron Scarazzo`
Charles Scardino
Ms. Regina Scaringella
S. Joan Scary,RSM
Louis Scavo
Jeanne Scavone
Dorothy Scesny
Sister Scesny
Bernadette Schaad
Ruth Schaaf
Bonita Schack
Rebecca Schack
LaVonne Schackmann
Daniel Schadel
Abby Schaefer
Ellie Schaefer
Joan Schaefer
Mary Schaefer
Ryan Schaefer
Jame Schaefer, Ph.D.
Jean Schafer
Sr. Maria Elena Schafer
Carol Schaffer
Jeffrey Schaffer
Joanie Schaffer
Judith Schaffner

Sr. Carolyn Schalen Berger
Beth Schaller
Daniel Schaller
Jim Schaller
Sammy Schaller
Sr. Anne Schallhaas
Beatrice Schammel
Beatrice Schammel, SSND
Raabbi Susan Schanerman
Dorothy Schanio
Phyllis Schapker
Roxanne Schares
David Scharfenberger
Maria Scharfenberger
susan scharfenberger
Barbara Scharff
Gary Scharff
Nina Scharrett
Alexandrea Schaul
Patricia Schaumann
Barbara H Schaus
Patricia and David Schecher
Ms. Susan Scheffel
Daniel Scheid
Karen Scheid
Chris Schell
Chuck Schell
Sr. Edna Scheller
Jay Schelman
Dolores Schembri
Sr. Dolores C Schembri
Marlene Schemmel
William Scherbak
Donald Scherer
melanie Scherer
Susan Scherkenbach
Rita Scherrei
Owen Schertz
Philip Schervish
Richard Scheutzow
Fr. James Schexnayder
Judith Schiavo
larry schieffer
MAureen Schiemer
David Schiesl
Mary Schifferle
LINDA SCHIFINO
Bob Schildgen
Joan Schildwachter
Jolene Schile
carolyn Schilling
Rita Schiltz
Marie Schimelfening
Mary Schimmoller
Mary Schimscheiner
Rose Schings
Cullen Schippe
Angela Schira
Luca Schira
Mena Schira
Ozzy Schira
Claudette Schiratti, RSM
Wairlyn Schirid
Kathy Schiro
Mary Schissel
Dorothy Schlaeger
Jim Schlautman
Elizabeth Schlein
Carole Schletz
Janet Schlichting
Robert Schlichting
William Schlosser
Mary Schlueter
Lorraine Schmaltz
Rosemary Schmalz
Deborah Schmatolla
Mary L Schmersal
Kate Schmid
Sr. Virgina Schmid
joseph schmidinger

Maria Schmidlkofer
Markus Schmidmeier
Antonette Schmidt
Cynthia Schmidt
Edith Schmidt
Erin Schmidt
Helen schmidt
Sr. Joan Schmidt
Katherine Schmidt
Rita Schmidt
Terri Schmidt
Victoria Schmidt
Mary Ann Schmieding
Sr. Helen Schmiedt
Kyle Schmierer
Jane Schmit
Colleen Schmitt
Mary Schmitt
Sr. Mary Jane Schmitt
Sue Schmitt
Ruth Schmitter
Becky Schmitz
eileen schmitz
Elizabeth Schmitz
Gladys Schmitz
Jacqueline Schmitz
Marjorie Schmitz
Sharon Schmitz
Sister Mary Schmuck RSM
Margaret Schmus
Jessica Schnack
Cherri Schnautz
Francis Schneck
Ann Schneider
Carolus Schneider
Catherine Schneider
Edith Schneider
Elaine Schneider
Jill Schneider
Joan Schneider
Kathy Schneider
Lynette Schneider
Mary Schneider
Robbie Schneider
Rose Schneider
sandra schneider
Sr.Helene Schneider
Sandra Schneiders
Christine Schnepf
Maria Schnnelo
Sister Joan Schnorbus
Mary Schoberg
Sue & Craig Schoenfelder
Miriam Schoepf
Ann Schofield
Sister Patricia Schofield
Bernard Scholes
Phyllis Scholp
Betty Scholten
Richard Scholtz
Ann Scholz
Rita Schonidy
Patricia Schoonover
Mary Ellen Schopfer
William Schorr
Kris Schrader
Nancy Schramm
Ginny Schrappen
Donna Schreiber
Jodi Schreiber
Linette Schreiber
Suzanne Schreiber
MaryKay Schreier
Sister Shannon Schrein
R.L. Schris
Sr. Barbara Schroder
Sr. Regina Schroder
Sr. Stephanie Schroder
Mr. Steven M. Schroder
Sr. Michele Schroeck
Alice Schroeder
Amy Schroeder
Donna Schroeder
Sr. Elizabeth Schroeder
Judy Schroeder
Kevin Schroeder
Mary Ellen Schroeder
PAUL SCHROEDER
Bro. Mark Schroeder, O.F.M.
Thomas Schroer
Joanne Schrynemakers
Neil Schuarts

Sihn Schuarts
Alicia Schubert
David Schubert
David and Judy Schubert
Gabriele Schubert
Mildred Schubert
Anna Schuck
Michael Schuck
Abigail Schudel
Vickie Schudel
Frances Schueler
Judy Schuelke
Lisa Schuelke
Jane Schueller
Mary E. Schuelte
George Schuette
Mary Schuette
Sr. Mary Schuidt
Barbara Schuler
Cecilia M Schuler
Sr. Chanelle Schuler
Daniel Schuler
Pat Schuler
anne Schulman
Matthew Schulte
Sara Schulte-Bukowinski
Anne Schulthess
Jean Schultz
Ken Schultz
Louis Schultz
Mary Schultz
Sr. Rose Anne Schultz
Sheila Schultz
Kim Schulz
mary schulz
Alison Schumacher
Chris Schumacher
Sister Janet Schumacher
Alicia Schur
Chris Schur
Chris Schur
Jane Schur
Natalie Schur
Kathy Schuster
Cherilyn Schutze
Jennifer Schutzman
Mary Schuyler
David Schwab
Joan Schwager
Nancy Schwalen
Dianne Schwartz
Dr. Robert Schwartz
James Schwartz
Mitchell Schweickart
Verne Schweiger
Sr. Catherine Schwemer, PHJC
Harry Schwendemann
Dorothy Schwendinger
Patrice Schwenk
Raphael Schweri
Patricia Schwerzler
veronica Schweyen
Marilyn Schwieterman
Cathy Schwinden
Sandra Schwoerer
Josephine Scipione
Grace Scola
Alice Scott
Allison Scott
David Scott
Gary Scott
George Scott
James Scott
Jeanne Scott
Marie Scott
Mary Scott
Stuart Scott
Scott Scott Meyer
Dorothy Scotti
Kathleen Scriber
margaret scripp
Sandra Scroggins
Bonni Scudder
Brendan Sculley
Catherine Scullin
Ann Scully
Beth Scully
Sr. Mary Sdmdh
John Sealey
Leah Sealey
Chris Sealock Kelly
Susan Searle

Rose Marie Seavey
Frank Sebastianelli
Bridget Sebby
Sister Elaine Sebera, R.S.M.
BETH SEBERGER
Marie Seckar
Elizabeth Secord
Michelle Secrest
Douglas Sedon
Mark Sedotti
Dan See
Arlene Seeber
Susan Seeby
Stephanie Seeley
Hayley Seeno
Corey Sees
Janet Seger
Kimberly Seger
Christine Seghetti
Ms. Segreie
Anna Segreto
Margaret Seidel
Irmgard Seidl-Adams
Jessica Seidman
Patricia Seiler
Grace Seitzer
Melanie Sejba
Anne SEKUL
Lisa Selby
Mary Selby
Sr. Leona M. Selig
Jo-Anne Sell
Sr. Jenny Sellaro
Karen Sellers
Kathleen Sellers
Kim Sellon
Judith Seman
Kay Sempel
Sr. Mary Georoge Senderak
Sister Mary G. Senderak
Sr. Mary Senderak
Sr. Mary G. Senderak
Nancy Senechalle
Patrick Sennello
Bill Sennett
Ms. Maria Sennett
Mary Sennott
Rita Burns Senseman
Audrey Sept
Conner Sept
Margaret Sept
Sue Sept
Maria Sepulveda
Marina Sepulveda
Socorro Sepulveda
Mary Serbacki
Joan Serda
Cynthia Serjak
Brenda Serna de Johns
Maria Serrano
Thomas Serrano
S Joyce Serratore
Mary Serughetti
Jane Servadio
Samuel Settar
Rhyne Setzer
Annette Seubert
Paul sevenish
Jim Sever
Thomas Severin
Edward Severyn
Tim Severyn
Leticia Seward
Aaron Sha
jill shaddock
Jean Shafer
Mary Shafer
Shirley Shafranek
Angela Shahbazian
Nejdeh Shahbazian

Ermelinda Shahu Doku
Barbara Shaklan
Mary Shalley
Erick Shambarger
Elena Shan
Sr. Patricia Shanaham
Judy Shanahan
Patrick Shandonay
Kelly Shank
Paige Shank
Shari Shanklin
Donald Shanks
mary shantz
Felice and Mark Shapiro
Rasha Sharhan
Diana Shark
Meghan Sharkey
Colleen Sharp
Jeffery Sharp
Dr. Donna Sharpe
Susan Sharpe
Ed Shaughnessy
Joanne Shaughnessy
Maureen Shaughnessy
john Shaver
Camille Shaw
Dr. Sr. Mary Shaw
Duncan Shaw
Fiona Shaw
Jeniffer Shaw
Linda Shaw
Margaret Shaw
Mary Shaw
Sheila Shaw
Sister Elaine Shaw
Sophia Shaw
Violet Shaw
Thomas Shay
John Shea
Marilyn Shea
Noreen Shea
Patricia Shea
Steven Shea
thomas shea
Marianne Sheahan
Maureen Sheahan SP
Sr. Juanita Shealey
Gerald Sheble
Catherine Sheehan
Daniel Sheehan
J.Brian Sheehan
Jenny Sheehan
mary Sheehan
Maureen Sheehan
Megan Sheehan
michela sheehan
Patricia Sheely
Patricia Sheeran
Bernadette Sheerin
Adele Sheffieck
Marla Shega
Elaine SHEGITZ
Thomas Sheibley
Kinsey Sheila
Miss Marie Shelton
Stephanie Shen
Betty Shenk
Kim Shepard
Deborah Shepardson
Ellen Shepheard
mary f. sheppard
Linda Sherck
Christine Sheridan
Tom Sheridan
Maryann Sherlock, S.C.
Fr. Rick Sherman
Francis Sherman
George Sherman
Kathleen Sherman
Sandra Sherman
Sarah Sherman
Shomriel Sherman
Thomas Sherratt
Kathleen Sherretts
Thomas Sherry
Priscilla Shields
Joseph Shierling
Barbara Shiffer
joyce shiffrin
Stephen Shin
Rosaria Shina
Teresa Shine

Rebecca Shiner
Michele Shipp
MARK SHIRK
Grace Shisler
Song Shln
Victoria Shoaf
Martha Shogren
Daniel Shomaker
Sr. Grace Shonk
Brenda Shope
Pam Short
Pauline Shorter
Ellen Shoun
Sada Showell
Kathleen Shrauger
sajan ram shrestha
Kathy Shuart
ruth shuler
Barbara Shuman
Cheryl Shushan
Virginia A Shy
Sanja SÌ_rman
IvÌÁn SÌÁnchez
AndrÌ© Sicard
Isabella Siciliar
James Siciliar
David Sickles
Rita Siders
Marie Sidick
Walter Sidney, SJ
Jane Siebel
Jo Siedlecka
Carol Siegel
Judith Sielaff
Patricia Siemen
Sr Patricia Siemen
Carol Siemon
Sr. Mary Sieron
Elizabeth Sierra
Dylan Sierra-Guiza
Dylan Sierra-Guiza
Karen Sievers
B Joan Sifferle
valerie sifleet
Dean Sigler
Sr. Phyllis Sikora, OP
Patricia Sills-Trausch
Jonge Sillva
Praucedca Siloto
Judith Silva
Kimberlynn Silva
Maria Silva
Suzana Silva
Maria Silvers
Edith Silvestri
Eugenio Silvestrinio
Sandra Silvestro
Mary Jane Silvia
Sr. Lucy Silvio
Erin Simao
Mary Lou Simcoe
Catherine Simmons
Dinah Simmons
Ryla Simmons
Suzanne Simmons
Barb Simms
Sr. Georgianna Simon
Joan Simon
Karen Simon
Louise Simon
Sr. Mary Louis Simon
Sharon Simon
Beverly Simone
John Simone
Lara Simone
Amylee Simonovich
Monica Simons
Shirley Simpon
Eric Simpson
Sr. Marietta Simpson
Patricia Simpson
Sister Kathleen Simpson
Debra Sims
Jennifer Sims
Sister Annette M. Sinagra, OP
DOROTHEA Sinclair
Mark Sinclair
Scott Sinclair
Brian Singer-Towns
Miriam Singh
Joan Singleton
Celesta Sinisi

MaryEllen Sinkiewicz
Grace Sinopoli
claire sinotte
Kathy Sins
Clayton Sinyai
Theresa Sinz
Arigo Sipez
Yvonne Siqueiros
Helen Sirvinskas
Rita Sisko
Janet Sisler
Kathy Sisson
SCL Care of Creation Committee
Sisters of Charity of Leavenworth
Sisters of Charity Sisters of Charity of St. Elizabeth
John Sitter
Ana Siufi
Andrew Siuta
delia sizler
Jacquelyn Skalba
Grace Skalski
Marie Skebe
Sr. Christina Skelley
Carol Skelton
Beth Sketch
Carla Skiba
Nancy Skibinski
Fran Skiendzielewski
Helen Skierkowski, SSND
Geraldine Skingel
Ms. Virginia B Skinner
Gwen Skipper
Linda Skisak
Kathleen Skoff
Sue Skog
Laurie Skokan
Georgia Skopal
James Skopal
Cecelia Skotk
Sr. Pat Skowronek
Carol Skowronnek
Sylvia Skrepichuk
Bishop William Skylstad
tom slagle
Paris Slapikas
Enid Slater
Marie Slattery
Patricia Slattery
Min.Genesis A Slaughter
Sister Ann Marie Slavin
James Sliney
Lucy Slinger FSPA
Judy Slivka
marcia sliwinski
Sister Jean Sliwinski
Rita Sloan
Paul D Slone
K. Slorty
Elizabeth Slosar
Mary Therese Slota
Joseph Slovinec
Paul Slvsan
chris small
Pat Small
James Smarrey
Concetta Smart
Peter Smearman
Karen Smekofske
Barbara Smelko
Barbara Smiley
Carol Smist
Anastasia Smith
Angela Smith
Anna Smith
Barb Smith
Barbara Smith
Brian Smith
Candace Smith
Carol Smith
Charlotte Smith
CLAIRE smith

David Smith
Debbie Smith
DEBORAH SMITH
Denise Smith
Sr. Diane Smith
Donald Smith
Dorothy Smith
Douglas Smith
Sr. Evelyn Smith
Frank Smith
Jacquelin Smith
Jacqueline Smith
James D. Smith
Janet Smith
Janice Smith
Jeffrey Smith
Joan Smith
Jonathan Smith
Judith Smith
Judy Smith
Justin Smith
Karen Smith
Karla Smith
Kate Smith
Katherine Smith
Kathleen Smith
Kathy Smith
Keston Smith
Kristi Smith
Laura Smith
Sr. Laura Smith
Lyn Smith
Maida Smith
Marilyn Smith
Marty Smith
Mary Smith
Mary Ann Smith
Sr. Mary Ann Smith
Mary Heather Smith
Maryellen Smith
Megan Smith
Michael Smith
Monica Smith
Pam Smith
Pat Smith
Patrick Smith
paula smith
Phyllis Smith
Polly Smith
Priscilla Smith
Robert Smith
Roberta Smith
Rosemary Smith
Sandra Smith
Shandeda Smith
Sheila Smith
Sue Smith
Susan Smith
Sylvia Smith
Tessa Smith
tina Smith
Toni Smith
val smith
West Smith
Zach Smith
Sr. Gerry Maria Smith
Sr. Janice Smith
Jeannie Smith
Sr. Joan Smith
Linda Smith-Dike
Ann Smith-Palenchar
Diane Smith,CSJ
Pat Smitt
Kelly Smock
Father Henry Smolinski
Sister Susan Smolinsky, SC
Elizabeth Smoyer
Peter Smudde
Benjamin Smyth
patrick smyth
Donna Snallory
Sister Susan SND
Sr Anne SND
Bill Snead
Dawn Snead
Jim Snee
Carolyn Snegoski
Maynard Snell
Jennifer Snider
Larry Snider
Marilynn Snider
John Sniegocki

JoAnn Snodgrass
Linda Snow
Shawn Snow
Barbara Snowadzky
Elizabeth P. Snyder
Sr. Jill Snyder
Joe Snyder
John Snyder
Louise Snyder
Mark Snyder
The Honorable Tiffany Snyder - Mayor of Ward, Colorado (4-terms, now ret.)
Thiago Soares
Amalia Sobalvarro
Rosine Sobczak
Jennifer Sobnosky
Patrick Socoski
Mary-Kaye Soderlind
Patricia Soete
Robyn Soffera
Samuel Soglo
Deborah Solano
Guillermina Solano
sheila solari
Deyanara Solis-Najera
Martin Solma
Bart Solo
Gloria Solomon
B Soltis
Greg Soltis
Kathryn Getek Soltis
Loretta Soltis
Ana Somarriba
Doreen Somel
Audrey Sommer
Kathryn Somoza
Linda Songy
charlotte sonneville
Sr. Charlotte Sonneville
Kang Sook
Mary Sopczynski
Mary Sopczynski
Paula Soper
Sandee Sorel-LeDuc
Michele Sorensen
Anrico Soriano
Corazon Sorio
Griselda Sorrow
Libby Sosa
Sr. Alica Soto
Alice Soto
Jean Soto
MONICA SOTO
Sheriley Soto
Souie
Joyce Soukup
Sara Sousa
Mary Southard
Pat Southward
Sr. John Michele Southwick
Edward Souza
Lucille Souza
Elaine Sova
Marjorie Sovey
Gerard Sovq
KAREN Sowers
Jo Sowes
Monica Sozio
Cathy SP
Craven SP
Kelly Spacht
Kim Spading
MARJORIE spagnuolo
Christina Spahn
Rosemary Spalding
Lori Spanbauer
Eileen Spanier
LeRoy Spaniol
Jan Spano
Mary Spano
Melinda Sparks
Anna Sparwasser
Deanna Spatz
Gerald Spatz
Loreen Spaulding
Sister Rita Specht
Robert Speer
Sydney Speer
Sandra Speice
Thomas Spellman
Sr. Carol Ann Spencer
Joseph Spencer

Martha Spencer
Sarah Spengeman
Sr. Terence Spenger
Bonnie Spenl
Edward Spenl
Jean Spera
Amy Sperry
Marsha Speth
Sr. Marsha Speth
Edward Spevak
Sharon Spieckerman
Ellie Spielbauer
Dorothy Spinler
Amanda Spittal
Irene Spodnik
Samantha Spoerndle
Juliet Spohn Twomey
Liberty Sponek
Lindsay Sponner
Christine Sprague
Gayle Sprague
Pat and Lee Ann Sprankle
Travis Spreen
Tim Sprehe
Linda Sprouse
Janet Srebalus
Leonard Sroka
Barbara Srozenski
Susan Plews SSND
Melinda St Germain
Jackie St Hilaire
Christopher St John
Gabrael St. Clair
Brenda St. John
Molly St. John
Sr. Kathleen St.John
Mary St.Ledger
Helene Staab
Tammy Staal
Deborah Staats
Robert Stachnik
Suzanne Stack
Sylvia Stack
Cynthia Stacy
Judith Stadler
Rev. Sarah Stadler
George Stadnik
Philip Stadter
Camellia Stadts
Miriam Stadulis
Sally Staff
Tanya Stager
Patricia Stagg
Sr. Thomasine Stagnitta
Suzanne Stahl
Kim Staker
Irene Stalcup
Lynn Staley
Savannah Staley
Sophia Staley
William Staley
Rose Stallbaumer
Rose Marie Stallbaumer
Lisa Stallings
Rita Stalzer
Jennifer Stamatio
Marcia Stamboulian
Nancy Stamilio
Mary Stanek
Sr. Bernadette Stang
Richard Stang
Tomasz Staniszewski
Judy Stankewicz
Christine Stankiewicz
janet stankowski
Autumn Stanley
Dianne Stanley
Theresa Stanley
Amy Stanton
Casey Stanton
Kathymarie Stanton

Thaddeus Stanton
Karen Staples
Jodie Stark
Joseph Stark
Sharon Stark
Shirley Starke
Michael Starks
judy starkweather
Dr. Kathryn Starr
Mary Starr
Barbara Starre
Jeannie Starrs
Jennifer Staszak
Amy Statton
Sr. Corinne Staub
John Staudenmaier
Marge Staudt
Sharon Stauffacher
Donna Stauffer
Janet Stauffer
Beny Stauldy
Steven Stawarz
Gabrael StClair
Maria Stea
Joan Marie Steadman
Suzanne Stearn
Rhodora Stearns
Sally Stearns
Mary Louise Stebbins
Carol Stech
Christopher Steck
GREGORY STECKEL
Alecsandra Steele
Deborah Steele
Linda Steele
Mary Steele
Terry Steele
Maureen Steeley
Priscilla Steenburg
Christopher Steevens
Brian Stefan-Szittai
Mary Helen Stefaniak
Sr. Monica Mary Stefanides
Carolyn Stefanski
Donna Steffen
Ann Steffens
Catharine Steffens
Catherine Steffens
Rachael Stegall
Vincent Stegman
William Stehl
Alice Stehle
Angela Stehle
Claudia Stehle
Bob Steiert
Lisa Steigerwald
Sister Lisa Steigerwald
George Stein
Sr. Mary Stein
Marjorie Steinberg
Therese Steiner
Joanie Steinhaus
connie steinhoff
Marie Steinitz
Melissa Steinmetz
Laura Stell
Sandi Stelz
Joyce Stemper
sandra stempkowski
Geralyn Stenger
Mr. Harry Stenger
DeeAnn Stenlund
marianne stephan
Sr. Mary Stephan
Michael Stephan
Rebecca Stephan
Greg Stephens
Robert Stephens
Delena Stephens-Bowen
Christine Stephensm
Anne Stephenson
Donna Stephenson
Martha Stephenson
Tony Stephenson
Jean Stern
Kathy Sternal
James Sterner
Sr. Mattie Sterner
Denise Stetson
Annie Stevens
Cheryl Stevens
Jennifer Stevens

Jon Stevens
Melissa Stevens
Nancy Stevens
Sharon Stevens
Steve Stevens
Anne Stevenson
Lori Stevenson
Mary Stevenson
Noreen Stevenson
Rosalie Steward
Andrew Stewart
Betty Stewart
Christine B. Stewart
EDWINA STEWART
Jackie Stewart
Margaret Stewart
Mary Esther Stewart
Mary Lou Stewart
Susan Stewart
Stan Sticka
Martha Stickein
Rebecca Stidfole
Joanna Stiehl
Tony Stierite
Constance Stierlen
Tonya Stiffler
Linda Stilling
nancy stimac
Richard Stimson
Susan Stith
Jenny Stiven
Constance Stober
Pamela Stock
Anne Stocker
Keith Stocker
SHARON STOCKMANN
Patricia Stockton
Shirley Stockus
Maddalena Stodart
Carolyn Stoe
Carolyn Stoe
Sue Stoeckel
Mary Ann Stoffregen
John Stofko
Margaret Stohosky
Eric stoikovich
jeri stokes
Doris Stone
Ford Stone
Joe Stone
Patti Stone
Sister Sheila Stone
Toni Stone
Chrissy Stonebraker-Martinez
Analeea Stoneburner
Mary Stonich
Shawn Storer
Stephanie Storer
Bob Stoughton
Kate Stout
Pam Stout
Sally Stovall
William Strain
Lynda Straith
Frances Strange
Brian Strassburger
Sharon Strassburger
K Strasser
Margaret Stratman
Brenda J Stratton
Margaret Strauch
lucy strausbaugh
Dale Strauss
Phyllis Strauss
Richard Strauss
Jennifer Strausser
Anthony Strawa
Jean Strawbridge RSM
Tom Streckert
Eric Streett
Rose Marie Stremel
carrie Strey
James Strickland
Ann STRILECKIS
Victoria Strimel
Clifton Stringer
Sandy Strizek
Sharon Stroh-Cock
Mrs. Elizabeth A Stroll
Irene Strom
Margie Strom
Melissa Stromberg

Sr. Michael Stroper
Arlene Stroud
Charlotte Struckhoff
Viola Struckhoff
Therese Strutner
elisa stuart - wilkins
Mary Louise Stubbs
Grace Stubel
Michael Stubel
Patricia Stucke
Marianne Stuckert
Sr. Maria Studer
Monica Stuhlreyer
Sydney Stulock
Karen Stumler
Sr. Leona Stump
Sheila Stump
Margaret Stumpf
Daniel Stupka
Linda Sturtevant
Tom Sturtevant
Kit Sturtevant-Stuart
Rita Sturwold
Jennifer Stutz
Matthew Stutz
Ken Styles
Carolyn Suain
Hilda Suarez
Constance Suchala
Linda Suchy
Amelia Sucich
Ms. Amelia Sucich
Mr. Anthony Sucich
Matthew Suddes
Victor aka Br. Ignatius Sudol
Steven Sugarman
Christina Suh
Barbara Suhadolnik
Jodi Sulak
Nathan Sullenberger
Ann Sullivan
Ben Sullivan
Sr. Bridget Sullivan
Brigid Sullivan
Chelsea Sullivan
Dana Sullivan
Debbie Sullivan
Edward Sullivan
Gina Sullivan
Jean Sullivan
Jim Sullivan
John Sullivan
John P. Sullivan
Josie Sullivan
Kathryn Sullivan
Laura Sullivan
Laurie Sullivan
Leslie Sullivan
Loretta Sullivan
Sr. Loretta Sullivan
Margaret Sullivan
Mary Sullivan
Sr. Mary Sullivan
Mary Jane Sullivan
maureen sullivan
Maureen L. Sullivan
Melanie Sullivan
Michael Sullivan
Sr. Patricia Sullivan
Rev. Reuale Sullivan
Robert Sullivan
Rose Mary Sullivan
Sharon Sullivan
Sister Maire Sullivan
Sister Maureen Sullivan
Susan Sullivan
jGerard Sullivan, SM
Elizabeth Sully
Janet Sully
Louie Sully

Sheila Sully
Joanne Summers
Alan Sundby
Dr. Marilyn Sunderman, RSM
Phyllis Supancheck
Sr. Joan Supel
Monica Supina
Rebecca Surendorff
John Surette
Bernard Survil
Frost Susan
Suzanne Susany
Emily Susko
Charlotte Sutherland
Eloise Sutherland
Marie Sutter
Nancy Sutter
Valerie Sutter
Sr. Susanne Suttn
Edward Sutton
Chet Sutula
Bonnie Svec
Marika Svolos
Robert Swab
Jonathan Swade
Patricia Swagart
Mary Swain
Kelly Swan
Pamela Swan
Walt Swan
Kasey Swanke
Angel Swanson
Diane Swanson
john swanson
Nan Swanson
Carmen Swaroop
Jenn Swart
Terrie Swazzo
Susan Swedler
Ronald Swedlund
Anne Sweeney
Caroline Sweeney
Claire Sweeney
Elaine Sweeney
John Sweeney
Sr. Kathi Sweeney
Marie Sweeney
Mary Sweeney
Patricia Sweeney
Sr. Redempta Sweeney
Tom Sweeney
Doris Ann Sweet
Jamie Swenson
Judy Swett
Christy Swift
Claire Swift
Sister Madonna Swintkoske
Gloria Switzer
Paul S. Swope Jr.
Jean Swymeler
Fred Sy
Theorda Syal
Theresa Sybert
Judith Syder
Marta Sykut
May Sylvain
Kathleen Sylvester
Guy Symonds
Russell Symonds
Mary Synkewecz
Rita Syron
Joseph Szabo
Gail Szanyi
Paul Szczepanski
Sr. Karen Marie (aka Szkatulski
Linda Szocik
Virginia Sztorc
Steven Szymanski
Nancy Szymczak
b. T.
Margaret T.M. Petkiewicz
Francis Ta
Ms. Roberta Taber
Jo Ann Tabor
Mary Tacheny
Martha Tack
Germaine Tackett
Romaine Tacznosky
Raquel Tadeo Orbik
Keith Tadler
Margo Tafoya
Janet Tag

Laura Taggart
Marjorie Takei
Catherine Talarico
Dorothy Talotta
Judith Talvacchia
Peter Tamace
Nawal Tamimi
Elle Tamin
Kris Tanji
Kathy Taormina
Cecilia Taphorn
Adriana Tapia
Maryanne Tappen
Elisabete Taresiak
Jillian Tarkany
ramon taroy
Matthew Tarpley
Michelle Tarrant-Burgoz
Katey Tart
Kathryn Tate
Sam Tate
Deborah Tatto
Ryan Tatton
candace taubner
Tim Taugher
Lisa Taus
Sr. Patricia Tavis
Camille Taylor
Carl Taylor
Cheryl Taylor
Elizabeth A. Taylor
Frances Taylor
Helen Taylor
IAN TAYLOR
Katherine Taylor
Mary Taylor
Meryle Taylor
Paula Taylor
Thomas Taylor
Tom Taylor
Tom Taylor
William Taylor
minda te
Eileen Teare
Frances Tedesco
Sara Teemer
Jesse Teer
Matthew Teeters
Joseph Tegtmeier
rita ann teichman
C. Teitz
Patricia Tejeda
Patty Tejeda
Rudy Tekippe
Kenneth Telesca
Margaret Telesca
Thomas Telhiard
Sr. Telles
Jim Temo
Mary Temo
Catherine Tempesta
Joan Temple
Patrice Temple-West
Sanja Tenaie
Julie Ann Tenbusch
Julie Tennant
Kathleen Tenpenny
Aaron Terbinke
Elizabeth Terbrock
Sister Jessica Terek
JoAnne Termini
Ms. Theresa Terne
Marie Terney
Marlene Terra
Laura Terrazas
Cindy Terrell
Diane Terrett
Jean Terrien
Michael Terrien
Natalie Terry
Robin Terry
Mark Terwilliger
Raymond Testa
Judith Ann Teufel, CSJ
Augusta Thacker
Frank Thacker
Gale Thackrey
Lisa Thackston
Samantha Thauvette
John Thawley
Michael Theisen
Margery Theiss

Shirley Thens
Michael Theogena
Honey Theogene
Michael Theogene
David Theroux
Melissa Theroux
Steven Theroux
Agnes Therrien
Anton Theunynck
Jeanne Thibeault
Karen Thibodeau
Shirley Thielk
Carol Thiell
Nancy Thielmann
E Thier
Jackie Thiry
Dawn Thistle
Christina Thivierge
Stephen Tholcke
William Thoman
Diamond Thomas
FRANCES THOMAS
Jack Thomas
Jim Thomas
Joseph Thomas
Kathleen Thomas
Mark Thomas
Pat Thomas
Paul Thomas
Rita Thomas
Sarah Thomas
Sheila Thomas
Veidre Thomas
Sister Janice Thome
Jean Thomeczek
Alma Thompson
Amanda Thompson
Sr. Anita Thompson
Barbara Thompson
Benjamin Thompson
Chris Thompson
David Thompson
Don Thompson
Dr. Myriam Borges Thompson
Eileen Thompson
Elizabeth Thompson
Eric Thompson
jean thompson
Joanne Thompson
Joseph Thompson
Kate Thompson
Kevin Thompson
Linda Thompson
Lisa Thompson
Owen Thompson
Sandra Thompson
T J Thompson
Stanley Thompson-Short
Pat Thomson
Vie Thorgren
Jacqueline Thornburg
Shannon Thornburg
Sophie Thornburg
Adrianna Thorne
Melinda Thornton
Richard Thornton
CHRISTOPHER THORPE
Helen Thorpe
Robert Thorpe
Connor Thorstenson
Mary Thurlough
Ms. Roberta Thurstin-Timmerman
Jodi Thurston
Mark TÌ_th
Fe Maria Tiambeng
Helen Tickanen
Margaret Tickler
Marion Tidwell
Lynn Tiede
edie tierney

John Tierney
Pat Tierney
Phyllis Tierney
Scott Tierney
Millie Tiffany
Linda Tift
Catherine Tighe
Liz Tigue
Ann Tihansky
Julie Tilghman
Ruth Tillman
Ralph Timberlake
Sydney Timme
Pilar Timpane
Mary Tinich
Antonietta Tinney
Suzanne Tinney
Sr. Mary John Tintea
Rafael Tirado
Edward Tiryakian
John Tischhauser
Donna Tivnan
Argelia Tlatelpa
Tom Toale
Sheila Marie Tobbe
Carolyn Toben
Tobias Tobias
Jim Tobin
Jean Tobin, OP
Christopher Tocco
Jim Toczynski
Catherine Todd
Kathleen Todd
Louis Tognan
Nancy Tognan
Kathleen Toigo
Godwin Toke
Raphael Toke
Antoniette Toku
judy tolan
Judith Tolan-Starace
Joan Tolle
Lauretta Tomasco
Steve Tomasula
Ellen Tomaszewski
Joseph Tomei, CSC
Michelle Tomkinson
ELAINE TOMKO
Sister Mary Tomlinson SP
MARGARET TOMMASO
Elizabeth Tomten
Sr. Pamela Toner
Joey Tonnous
Kathleen Tonri
Patrick Tonry
Margaret Toohill
Suzanne Toolan
Nancy Toole
REV. SEAN TOOLE, SJ
Maura Toomb
Aoife Toomey
Daniel Toomey
Paula Toomey
James Topolski
Dave Topp
Leonardo Torar
Mary-Stuart Torbeck
Sister Martha Torbik, osf
Sue Torgersen
Suzannw Torgeson
Thomas Tornow
Adeline Torres
Aurora Torres
David Torres
E Torres
Jose Torres
Marianella Torres
Mario Torres
Nelly TORRES
Ms. Paulanna Torres
Randy Torres
Robert Torres
Ruthanne G Torres
Susan Torres
Valerie Torres
Daniel Torson
Gerald Tortorella
Cambria Tortorelli
John Tortoriello
Chiara Tosoc
DeeDee Tostanoski
Dominic Totaro, S.J.

Felix Totea
Jane Toth
Suzanne Toton
Ivan Tou
Halima Toure
John Tovar
Raymond Towey
Linda Townill
Ellen Townley
Phyllis Townley
Carol Townsend
Helen Townsend
Jenny Townsend
Suellen Tozzi
Maryanne Tracey
Annette Tracy
Sr. Diane Traffas
Carmen Traill
Sr. D Traillch
Mary Trainer
Mary Beth Trak
Marlene Trambley
Joan Tramontano
Kim Tran
Loan Tran
Loc Tran
Sheila Trani
Dorothy Traphagen
Larisa Traub
Colleen Traud
patricia trauth
Katie Trautman
Shelby Travaglianti
Amy Travis
Carol Traynor
Kathi Traywick
Pat Trebatoski
Mary Ann Tregoning
Patricia Trejo
john Treloar
john Treloar
Galen Trembath
Rita Trepanier
Sister Rose Marie Tresp
Sr. Diane Tress
James Trewby
Daly Trimble
Ms Linda Triolo
Eydie Triplett
James Triplett
Mary Trippel
Linda Trippi
Aurora Trischka
Le Trn
Elizabeth Trocki
Karen Troiano
Georginia Troxel
Joan Troy
Mary Truax
Marc Trudeau
Albert Trujillo
Carmela Trujillo
Patty Trujillo
Jean Trumbauer
Barbara Truncellito
Beth Trunzo
Christine Truong
Dianna Trush
Mary Tschantz
Hiwot Tsegaye
Tes Tuason
Candice Tucci, osf
Jacob Tucker
Jennifer Tucker
Lauren Tucker
Mary Evelyn Tucker
Mary Jo Tucker
michael tucker
Roy Tucker
Kathleen Tucker Gustafson
Sr. Julie Tueher
Karen Tuel
Sr. Kathleen Tuite
Catherine Tuitt
Sheila Tullier
Sister Sylvia Tullius
Janet Tullo
Sr. Sylvia Tulluis
Andrew Tully
Clare Tully
Teresa Tully
Thomas Tully

louis turek
TERRY TUREK
Valerie Turgeon
Mary Turgi
Donna Turiano
Dorothy Turk
Sr. Dorothy Turk
Margaret Turk
Castellano Turner
Margaret Turner
Ilya Turov
Joseph Turowski
Chole Tursi
Regina Tutzo
Patricia Tweedy
Mary Twist
Richard Twohig, S.J.
David Twomey
Jan Tyler
Maris Tyler
Robyn Tynan
Mrs. Judith Tyrrell
Mr. Patrick Tyrrell
Kathleen Tyson
Keith Tyson
Janis Uccellini Pascarella
William Uebelher
Joseph Uecker
Margaret Ufheil
Elisa Ugarte
Alice Uhl
David Uhl
El Uhl
Christy Uhrich
Dr. Elizabeth Ukerman
MArie Ulanowicz
Robert Ulanowicz
Sister Maureen Ulatowski
David Ulibarri
Dick Ullrich
Jeannie Ulrich
Tom Ulrich
Gloria Ulterino
jean umlor
Sister Marietta Umlor
Jill Underdahl
Joan Underwood
Margaret Ann Underwood
Martha Underwood
Bill Unruh
Julie Urban
Rebecca Urban
James Urbanic
Gregoria Urbano
Lori Urbin
Adriana Urbna
Gabriela Urena
Samarah Uriarte
Benjamin Urmston
Eric Urruela
Connie Urrutia
Nicholas Uxa
Arlene Uzmed
Robert Uzzilio
Roseann Uzzo
Donna V
Sharon V
V V
Diana Vaca McGhie
Anne Vaccarest
Christina Vaccarino
Joseph Vaccarino
Anthony Vaccaro
Terry Vaccaro
James Vacco
Leah Vader
Pamela Vail
Donna Vaillancourt
henri Vaillancourt
Janice Valder

Sr. Loretta M. Valdes
Jessica Valdez
Barb Valente
Kathyrn Valente
Andrew Valenti
Charles Valenti
Virginia Valenti
Christina Valero
Joyce Valese
Thomas Valesti
Celina Valevicia
Julie Valiton
Steve Valk
Carlyn Vall
Sr. Carolyn Vall
Lisa Valle
joanne vallero
sharon valois
Patricia Valonis
Sr. Carol Valtz
Barbara Valuckas
Ana Valverde Vidal
Judi Valvo
Hannah Van
Judy Van Allen
Grace Van Artsdalen
Joan Van Beek
Claudia Van Bogaert
Rose Ann Van Buren
Mike Van Cleve
Joan Van De Weghe
Jane Van Denend
My Van Duong
James Van Dyke. S.J.
Tricia Van Eck
Joe Van Gompel
Eva Van Hameren
Eunice Van Handel
Mary Van Houten
Marykathryn Van Keuren
Hubert van Ruymbeke
Esther van Stam
Clare Van Vooren
Carla Van Zandt
James VanAllan
Nelly VanAllan
Gail VanBogaert
Judith Vanbuskirk
Erin Vance
Marge Vance
Nancy Vance
Patricia Vance
Chris Vandenbossche
Joanne Vander Heyden
David Vander Jagt
Julie Vandergrift
Nikki VanDerGrinten
Mary Vanderhoof
Fr. Scott VanDerveer
Robert Vandervennet
Marti Vandervest
Roger Vandervest
Sr. Mary Alma Vandervest
Charlotte VanDyke
Savannah Vanegas
Ann Vanek-Dasovich
Margot VanEtten
Verna VanNewkitk
Marie Vanston
Christopher Vanthight
William VanWambeke
Evelyn Varcos
Madeleine Varkay
Margaret Varrone
john vasconcelos
Pat Vasile
Rosie Vaske, osf
Cecilia Vasquez
Ernesto Vasquez
Lillian Vasquez
Sister Vasquez
Karen Vater
Judy Vaughan
Bernard Vaughn
Sr. Theresa Vaulet
Therese Vaulet
JoAnn Vautour
Alison Vaux-Bjerke
Clarisa Vazquez
Margy Veatch
Michael Veatch
Dorothea Vecchiotti

Paul Vee
Paulina Vega
Rosa Vega
Virginia Vega-Siferd
David D Vehslage
Diane Veith
Margaret Veith
Emma Velanes
Jean Kyle Velasquez
Marissa Velasquez
connie velez
Damian Velez
Francisco J. Velez
Grace Veliz
JANE VELLA
Aaron Vellaram
STEPHANY VELUZ
Stephany Velz
Gina Venables
Kathryn Venezia
Sheila Venezia
Joetta Venneman
Marie Venner
James Ventola
Julio Ventura
George Veomeet
Marilyn Veomelt
Neil Ver'Schneider
Maria Luisa Vera
Sandra Vera-Mul±oz
Tai Verbrugge
Melissa VerDuin
Lorrita Verhey
Margaret Verhoff
Doris Verkamp
Mary Ann Verkamp
Sandee Vermaas
Mark Vermylen
Adam Verona
Eleanor Verrastro
Eleanor Verrastro
Dorothy Verry
peggy verstege
Marisa Vertrees
Patricia Vetrano
michael veuve
Mrs. Marie Vezina
E. Jane Via
Jeffrey Viau
Harry Vickerson
Anne Victory
Edgar Vidales
Sujau Vielma
Aana Vigen
Shirley Viger
Shannon Viggiano
Genevieve Vigil
Sr. Doris Vignawy
Carol Villaggio
Liliana Villagram
Paulina Villalbo
Andrew Villalon
Lucille Villanova
Merencia Villanuera
Viviana Villarina
Christina Villarreal
Rosa Villarreal
Teresa Villarreal
Sr. Lorraine Villemarie
Thomas Vinca
DAVID VINCENT
Harry Vincent
Jarel Vinduska
Elizabeth Vineis
Kathleen Vinicent
Mary Vinson
Mary Ann Vinton
Marie Viola
Marian Viramontes
Patricia Virden
John Virzi
Cynthia Vitere
David Vitka
Doris Vlasiut
Mary Vlazny
Ms. Melissa Vne
Cecile Vo
Edward Voakes
Lori Voakes
Paula Voborsky
Ben Vocking
joe Vodenichar

Karl Voelker, SJ
Jim Vogas
Claire Vogel
Geraldine Vogel
Jane Vogel
Sandra Vogel
Jennifer Vogt
Jim Vogt
Susan Vogt
Linda Volk
Bob Vollinger
mary volpe
Sr. Karen Marie Voltz
Dan Volz
Regina Volz
Mr. William Von Anckgn
Sister Deanna Rose Von Bargen, RSCJ
Barbara Von Bokern
Lourdes von Burg
Paul von Hartmann
Anne Von Hoene
Marlene Von Schmeliy
Gayle Vonderembse
Gene Vonderhaar
John VonderHaar
Sr. Jeanette VonHerrmann
Ellen Vopicka
Maria Vorel
Kristine Vorenkamp
Ms. Lusila Vorgas
Christine Voss
Erika Voss
Hannah Voss
Kimberly Vossler
Christina Vourcos
Eleanore Voutselas
Tamara Voyles
James Vragel
Helen Vrakas
Kelly Vrana
Greg Vranicar
CHUONG VU
Nga Vu
Uyen Vu
Christine Vukovich
Thi-Hong-Ha Vuong
Gretchen Vxgner
Frances W
Ryan W.
Carolyn Wacaser
gloria wachtel
Ben Wacker
Heather Wacome
sandy waddell
Kathleen Wade
Sr. Rita Ann Wade
Gabrielle Wadell
Barbara Wadley
Kathy Wadman
Joan Wageman
Kathleen Wagle
Angela Wagner
Christina Wagner
Deacon Robert Wagner
Deborah Wagner
Frank Wagner
Joyce Wagner
Julue Wagner
Kristine Wagner
Marcia Wagner
Robert Wagner
Rose Wagner
Roseann Wagner
Tyler Wagner
Thomas Wahl
Aichetou Waiga
Christian Wainwright
Jenn Waite
Matthew Waite
Retta Waite

cheryl waitkevich
Sharon Wakefield
Jeriene Walberg
Sr. Callista walbramson
Anne Walch
Matt Walcutt
Aloysius Wald
Rita Amberg Waldref
Karen Waldschmidt
Sister Mary Walheim
Paulina Walid
Mrs. Charlene Walings
Charles Walker
Erin Walker
nancy walker
James Wall
Joe Wall
Robert Wall
brenda wallace
Joycr Wallace
Kathy Wallace
Lois Wallace
Sr. Mary Jane Wallace
Wendi Wallace
Charlie Wallblom
Edna Walle
Janet Walley
Andrew Walls
Ashlee Walls
Laura Walls
Robert Walls
Carla Walsh
Cheryl Walsh
Clare Walsh
Denis Walsh
Dennis Walsh
Emma Walsh
Jacklyn Walsh
Sr. Jacklyn Walsh
James Walsh
Janine Walsh
Kathleen Walsh
Kevin walsh
Marie Walsh
Sr. Marie Walsh
Martha Walsh
Mary Walsh
Maura WAlsh
Megan Walsh
Sr. Rita Walsh
Virginia Walsh
Patricia Walson
Anne Walter
Cynthia Walter
Noreen Walter
Timothy Walter
Michael Walters
Mike Walters
Kristie Walthard
Karen Walther
Jan Walton
John Walton
Sr. Olivia Waltrring
Mary Walz
Nicholas Walz
Mary Jean Wamble
Steve Wand
Anne Wandrey
Cecilia Wang
Judy Wang
Paul Wang
Xudong Wang
Kate Wanke
Kim Wanke
Nicole Wanl
Nancy Wanning
Cheryl Ward
christina ward
DAN WARD
Elaine Ward
Janet Ward
Jennifer Ward
Joseph Ward
Kate Ward
Kathleen Ward
Rebecca Ward
Regina Ward
Rosemary Ward
Sheila Ward
Stephanie Ward
Theresa Ward
Wayne Ward

Helen Wardle
Ella Wardragon
Ruth Ware
Gail Waring RSM
Mia Warman
Alan Warner
Barbara Warner
cecilia Warner
Janet Warner
Richard Warner
Patricia Warnick
Acacia Warren
Carol Warren
James Warren
Kathleen Warren
Kathy Warren
Linda Warren
Maxwell Warren
K Washienko
Martin Washington
Mary Terry Wasinger
Patricia Wasser
Kathy Wassmann
Sr. Carol Ann Wassmuth
Philip Waterman
Catherine Waters
Mary Waters
Greg Wathen
Sheila Wathen
Christopher Watkins
Donald Watkins
Linda Watkins
Paul Watkins
Chris Watson
Harold Watson
Lori Watson
Maria Watson
Alexis Watters
Bill Watters
Jeanette Watters
Jeanette Watters
Mark Watts
Sherry Watts
Susan Watts
Guy Wauthy
Sr. Kathryn Wawl
shawn way
Jerry Waynant
Eileen Wayne
Gerry Weatherall
Darlene Weaver
Paul Weaver
virginia weaver
Dixie Webb
Holly Webb
Zoe Webb
Diane Webbert
Agnes Weber
Debra Weber
Faith Weber
James Weber
Jean Weber
Jill Weber
Dr. Laura A. Weber
Lore Weber
Mary Weber
noreen Weber
Octave Weber
Richard Weber
Christine Weber-Kearney
Roseann Weble
Andrew Webster
Barbara Webster
James Webster
Karen Webster
Daniel Weckering
Sister Julie Weckwerth
Mrs. Mary Weeber
Katherine Weesner
Sue Weetenkamp
Robert Wegener
S. Wegler
anneke wegman
Shelley Wehberg
Marian Wehler
Sylvia Wehlisch
Robert C Wehr
Robert Weickert
Patricia Weidinger
Deborah Weidner
Jeannine Weidner
Donald Weigel

andrew weigert
William Weiksnar
Anne Weil
Mary Weiler
Carolyn Weinberg
Alan Weiner
Mona Weiner
Connie Weingartz
Marie Weis
Stuart Weisberg
Joan Weisenbeck
Mary Weisenburger
Lee Weisgal
Mariana Weisgal
Susan Weishar
Donna Weiss
Annette Welch
Barbara Welch
Beth Welch
Mary Welch
Maureen Welch
Melanie Welch
Michelle Welch
Paul Welch
Robert Welch
Mindy Welding
Mary Kay Welgoss
Donna Welicky
Thomas Welk
John Welle
Andre Weller
Alfonso Wellez
Jennifer Wells
Ken Wells
Lasha Wells
Marjorie Wells
DIANE WELSH
Geoff Welsh
Glenn Welsh
Nilsa Welsh
Rosemary Welsh
Sr. Susan Welsh
Susie Welsh
Virginia Welsh
Valarie Welte
mary welter
Sr. Plarida Wemhoff
Paul Wemlinger
Judith Wemmer
Leonard Wencis
Bill Wendel
L.J. Wendel
Liz Wendeln
Ted Wendeln
Sean Wendlinder
Thomas Wendorf
mary wendt
Rev. Nathan Wendt, SJ
Wesley Wensek
Christine Wensel
Sr. Carol Wentworth
Sister Carol Wentworth
amanda wentworth puentes
Sheila Wentzel
Suzanne Wentzel
Jennifer Werbitsky
LaDonng L Wereet
D Werley
Patricia Werling
Margaret Wermott
Donna Wermus
Elizabeth Werner
Madeleine Werner
Betty Wershoven
Mary Werson
Whitney Werth
Lillian Werthmann
Mary Wertz
Sr. Larraine Wesatawski
Mary Rita Weschler

Kristi Wescott
Robert Wescott
Cindy Wesley
Maureen Wesolowski
Chloe Wessel
Sr. Martha wessel
Martha Wessel, SP
Teresa Wessels
Ms. Carol Anne West
Kristine West
Marsha West
Sydney West
Baptiste Westbrook
Marlena Westcott
Peter Westcott
Deacon Mark Westendorf
Theresa Westergard
Michael Westfano
Sr. Pauline Westlake
Stella Westmacott
Heather Westphal
Wanda Wetli
Martha Wettemann
Regina Weyer
Janet Weyker
Carol Whalen
Georgianna Whalen
Sr. Patricia Whalen
vivianne whalen
Anthony Whaley
Kathleen Whallon
Mary Whealon
Brian Wheeler
Demi Wheeler
Kathleen Wheeler
Patricia Wheeler
David Wheeler-Reed
Barbara Whelan
Eilish Whelan
Jane Whelan
Stephen Whelan
Vera Whelan
Lauren Whetsel
Charla Whimple
James Whitaker
Carol White
Cecilia White
Chris White
Deneen White
Eileen White
Elizabeth White
Florence White
James F. White
Katelyn White
Kathleen White
Marge White
Marian White
Mary White
MaryPat White
Michelle White
Myles White
PAm White
Roseanne White
Sally White
Scott White
Susan Jere White
Thomas White
Clare White McDonald
Debbie Whited
Mary Whitehead
Sarah Whitehill
John Whitely
Joanne Whitfield
maureen whitley
Mark Whitman
Brian Whitmer
Mary Whitmer
Therese Whitsett
Patrick Whitson
Gregory Whitworth
Paula Wick
Glenna Wickline
Katie Wickman
Royce Wicks
Judith Widauf
Jason Widegren
Hans Widmann
Adam Wiechman
Geraldine Wieczerzak
Adrianne Wieczorek
Bob Wieczorek
Therese Wieczorek

Susan Wieczynski, RSM
Joe Wiederhold
Sr. Macrina Wiederkehr
Veronica Wiedower
Helen Wiegmann
Joe Wiehagen
Leona Wieland
Mike Wielgopolski
Jean Wien
Steven Wiesching
Mary Ann Wiesemann-Mills
Bob Wiesenbaugh
Sharon Wiesler
Carolyn Wiethorn
robert wiethorn
Barbara Wifler
Becky Wigginton
Dianne Wigley
Linda Wihl
Christine Wikox
Ellen Wilber
Ms. Genevieie M. Wilbourne
Sharon Wilbur
Olin Wilcher
Bev Wilcox
MaryBernadette Wilcox
Susan Wilcox
Maureen Wild
Michael Wild
Patricia Wilde
Anne Wildenborg
Patricia Wilderman
Patricia Wildermarth
Steven Wildermarth
Teena Wildman
Edward Wildsmith
Carol Wildt
Dee Wiley
Kimberly Wiley
Barbara Wilhelm
Barbara Wilhelm
Donna Wilhelm
greg wilhelm
Roland Wilhelmy
Susan Wilhelmy
Peggy Wilher
Sr. Janet Marie Wilhlem
Denise Wilke.
Diana Wilkerson
Alberta Wilkes
James Wilkes
delaina Wilkin
Terry Wilkin
Diane Wilkins
Marjorie J Wilkins
Erik Wilkinson
Jean Wilkinson
Mary Wilkinson
Wayne Wilkinson
Julianne Will
Glenn Willard
Elizabeth Willems
Sr. Jacinta Willenborg
Dawn Willette
Alice Williams
Carol Williams
Connor Williams
Courtney Williams
Debra Williams
Denise Williams
Dylan Williams
Janet Williams
Jesse Williams
Jessica Williams
Joselyn Williams
Karen Williams
Kim Williams
Lina Williams
Margaret Williams
Maria Williams
Marlene Williams
Mary Williams
Nancy Williams
Nina Williams
Norman Williams
Patricia Williams
Paul Williams
Paulette Williams
Scott Williams
Joy Williams Schilling
Marilyn Williams,RSM
Carol Williamson

Gay Williamson
RIchard Williamson
Ruth Williamson
Sr. Adelaile Williamston
Caroljean Willie
Christine Willie
Ollie Willihard
Sonjai Willihard
A. Martin Willis
Emily Willis
Marty Willis
Patty Willis
Pauline Willman
Lawrence Willson
Kathy Wilmes
audrey wilson
Bill Wilson
carolyn wilson
Denise Wilson
Georgene Wilson
Heather Wilson
Jan Wilson
Sr. Jenny Wilson
Jim Wilson
Joan Wilson
Kathleen Wilson
Lisa Wilson
Mitch Wilson
Regina Wilson
Robert Wilson
Sharon Wilson
Steve Wilson
Dorothy Wilt
Gina Wimp
Barabara Winandy
Barbara Wincik
Thomas Windberg
Bobbiejo Winfrey
Lila Winger
Lora Winger
Dolores Winkler
S Winkler
Valerie Winnicki
Lucille Winnike
TOBIAS WINRIGHT
Mary Winser
John Winslow
Kathleen Winter
Sr. Colette Winterll
Mary Winters
Trenton Winters
George Winzenburg, S.J.
Eileen Wirley
Elizabeth Wirsching
Tara Wirsching
Teresa Wirsching
Anne Wisda
Sr. Anne Wisda
Jody Wise
Tony Wise
Sister Delores Wisnicky
Joseph Wisniewski
Mike Wisniewski
Rosalie Wisniewski
Marjorie Wisor
Cheryl Wissick
Marge Wissman
Felipe Witchger
John Witchger
Philip Witchger
Maureen Witherell
Jean Withrow
Carol Witry
Mrs. Jolene Witt
Nancy Witt
Sharon Witt
Terry Witt
Edward Witt SJ
Patricia Wittberg
Mark Witte

Paul Witte
Ann Witten
Alice Wittenbach
Michael Witzel
yvonne wiza
Jonas Wizda OFS
Allison Wleczoreh
Barbara Wodynski
alex woelkers
Marc Woersching
Harry Wohlsein
John Wohltmann
Andrew Woitkoski
Charles Wolf
Jan Wolf
Joan Wolf
John Wolf
Kim Wolf
mary wolf
Patrick Wolf
Sue Wolf
William Wolf
Barbara Wolfe
Gregory Wolfe
John Wolfe
Lois Wolfe
Catherine Wolff
Donald Wolff
Pat Wolff
Marie Wolfington
Leda Wolk
Rita Wollschlager
Dorothy Wolters
Douglas Wolters
Laurie Woltman
Roberta Wombacher
Avalyn Wona
Michelle Wong
Patricia Wong
Stephanie Wong
Virginia Wong
Vivien Wong
Ruby Woo
Elizabeth Wood
Judith Wood
Kathleen Wood
kAthy wood
Kelly Wood
Mary wood
Maureen Wood
Pamela Wood
Peter Wood
Sr. Helene Wood
Tom Wood
Veronica Wood
Carole Woodard
Ann Woodford
Christine Woods
Denis Woods
Felicia Woods
Jennie Woods
Margaret Woods
Marilyn Woods
Rebecca Woodward
Barbara Woody
Kitty Wooldridge
Marilyn Wooldridge
Mary Woolever
Patricia Woolley
Michael Woomer
Nancy Woomer
Ilrania Wootson
Anne Wootten
Louise Wootton
Sharon Worden
Sr. Barbara Worm
Jeff Worsham
Mary Worth
Robert Wotypka
Mariel Wozniak
Patricia A Wozniak
Steve Wozniak
Laura Wrekorits
Beth Wright
Caleb Wright
Carly Wright
Catherine Wright
Fr. Gary Wright
George Wright
Georgina Wright
John Wright
Mary Wright

Michael Wright
Patti Wright
Shirley Wright
Warren Wright
Will Wright
Sandra Wright-Esber
John Wronski
N. Wulff
Charles Wuller
Jean Wunder
nmoira Wunderlich
Sr. M Wurth
M Alan Wurth
Jued Wurzbach
Erin Wyant
John Wyant
Debbie Wyda
Marian Wyklige
Mary Ann Wyllie
Emily Wyman
pat wyman
Andrew Wynne
Bill Wynne
Sandra Wynne
Tim Wynne
Ted Wysocki
Theodore Wysocki
Lara Wysong
Don Xenos
Ilona Yaeger
Sr. Janis Yaekil
Aimee Yago
Guadalupe Yanez
Austin Yang
Renee Yann
Paul Yannolo
Dolores Yanshak
Thomas Yarcusko
Mrs. Diane Yarish
Nancy Yarosis
Nancy Yarosis
Anne Yarwood
Anne Yarwood
Mr. Gary Yarwood
Gary Yarwood
Stephen Yates
Terri Yawger
Rita Yazzie
Ashlee Yearwood
Mr. Ed Yeater
Carol Yeazell
lee yeazell
Sister Mary Geraldine Yelich
Jane yells
Sr. Geraldyne Yerg
Jim Yerger
Nicole Yoacham
David Yocca
Roger Yockey
Beth Yoest
J. Yogaajal
Laura Yokochi
Elizabeth Yokota
Tadashi Yokota
Diane Yonga
Nathanael Yonka
John Yonkovig
Hyun Jin Yoo
Jen Yoo
Young Sook Yoom
John Yopp
Geoffrey York
William York
Denise Yoshihara
Kay Yoshii
Lauren Yoshinobu
Nora Youells
A Young
anne young
elbert young
Georgeanne Young
Mr. Harry S. Young
KC Young
Kimberly Young
Maxine Young
Pam Young
Patricia Young
Philip Young
Mariemma Yousey
Mr. Liban Yousuf
Whitney Yow
J. Yrrilli

Annie Yuan
Joseph Yuhas
Carmen Yung
Emma Yurish
J.L. Yurish
Marcelline Yurkovic
J. J. Zabransky
James Zabransky
Jan Zaccarelli
Anneltel Zaccari
Alice Zachmann
Gregory Zackowski
Joseph Zaffiro
mary zahler
Raymond Zahra
Sister Ellen Zak
Kathleen Zakelj
Tamara Zakout
Maryanne Zakreski
Paul Zakrzewski
Margaret Zaleski
Julia Zalewski
Teresa Zamalloa
Sr. Maria Goretti Zamberland
Victor Zampa
Mary Zanarini
Beth Zangari
Palma Zanghi
Norma Zanieski
Chuck Zannetti
Lester Zapata
Stephan Zapodeanu
Ashley Zappe
Mary Eileen Zarek
Kimberly Zarif
Martin Zatsick
Marcella Zaueoui
Christine Zausten
Mary Zavada
Gabino Zavala
Sarah Zavala
Erin Zavaletta
Frank Zaveral
jeanette zawacki
Sharon Zayac
Diane Zbasnik
Debra Zedalis
Ed Zehel
karen zehr
Bob Zeigler
Ron Zeilinger
Maria Zeimen
Dorothy Zeiser
Anna Marie Zeitner
Ms. Lucy Zelesnik
Dawn Zelinski
James Zelinski
Ingrid Zemanick
John Zemblidge
Ruth Zemek
Gale Zensky
Manlene Zepkin
pat zerega
Henry Berrien Zettler
Kathryn Zeugner
Enoigue Zhugui
Beverly Ziegler
Russell ziegler
Jennifer Zielinski
Victor Zielinski
Dolores Zieser
Sr. Gloria Zieske
Ann Zieve
tricia zigrang
kt zilla
Ally Zimmer
JoAnne Zimmer
Antoinette Zimmerman
Craig Zimmerman
Sr. Judith Zimmerman

Mary Zimmerman
Paulette Zimmerman
Aublia Zinco
Alexandra Zingo
Barbara Zirngibl, ofs
Marianne Zito
Sr. Margaret Zizgitton
Sr. Joan Zlogar
Monica Zmolek
Erin Znidar
Margie Zocchetti
Kathleen Zoch
Ben Zoeller
joan zofnass
Mark Zolandz
Mary Louise Zollars
Betsy Zolper
Elizabeth Zolper
John Zolper
Thomas Zolper
tom zolper
Monica Zore
KIM ZORN
Evangelina Zozaya
Mary Zrust
Anthony Zuba
STANLEY ZUBEK
Jill Zuber
William Zucker
Sr. Raymound Zuenn
rose zuffi
Carol Zupancic
John Zupez
Kathleen Zurkowski
Joe Zurlo
Catherine Zurmuehl
Joan Zwach
Bill Zweigle
Norbert Zwickl
Donna Zwigart
Carol Zydron
Michael TRUE
Amaro
Amy
Barbara
Ben
Bonnie
Daria
Doreen
Sr. Elena
Hellin
Isabel
Jane
Jen
Sr. Lillean
Lizabeth
Loretta
Lupita
Nolin
Opaliebe
Stephanie
Sylvia
Tina

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 10 2017

OFFICE OF
ADMINISTRATION
AND RESOURCES
MANAGEMENT

Cody Downs, PO1
United States Navy
COMDESRON TWO ONE
3325 Senn Road, Suite 3
San Diego, CA 92136

Dear Petty Officer First Class Downs:

Thank you for your interest in the United States Environmental Protection Agency's award programs and for your military service in the United States Navy. We received your letter to Administrator Scott Pruitt inquiring about the EPA's Bronze Medal for Commendable Service on March 16, 2017.

Unfortunately, eligibility for the EPA's Bronze Medal for Commendable Service is reserved for EPA employees; however, there are other federal award programs that might formally recognize your command and its positive environmental stewardship. For example, the EPA's EnergyStar Program offers recognition for outstanding contributions toward protecting the environment through energy efficiency (https://www.energystar.gov/about/awards).

You can also visit the Innovation Awards website sponsored by the EPA, where you can nominate innovators for awards that highlight efforts to enhance the environment and encourage a new generation of environmental stewards (https://www.epa.gov/innovation/innovation-awards).

Once again, thank you for your letter and inquiry. If you have further questions, please contact me at Carpenter.Wesley@epa.gov or (202) 564-4606.

Sincerely,

Wesley J. Carpenter

Wesley J. Carpenter
EPA National Honor Awards Board Chair
Deputy Director, Office of Human Resources

UNITED STATES NAVY
COMDESRON TWO ONE
3325 SENN RD, SUITE 3
SAN DIEGO, CA 92136
907-351-7655

06 MAR 2017

U.S. Environmental Protection Agency
c/o the Honorable Scott Pruitt
1200 Pennsylvania Avenue, NW
Washington, DC 20460

To the Honorable Scott Pruitt,

Greetings!

My name is Cody Downs. Born & raised in Anchorage, AK until 2007, I'm a 33-year-old First Class Petty Officer in the United States Navy. I have served on Active Duty since February 2008. As Oct. of 2008, I've been stationed in Southern California. In 2009, I deployed in Iraq. From Nov. 2010 till June 2011, I deployed to Afghanistan.

The reason I'm writing to you today is two-fold: first, congratulations on your recent confirmation as the nation's newest EPA Administrator.

Second (and the chief purpose for my letter today): I would like to nominate (with the hope of selection) my unit, COMDESRON 21, as a recipient of the EPA's Bronze Medal for Commendable Service. I feel our commitment to making a "green office" is without question & curious as to vetting criteria is needed to get bestowed this honor.

Thank you for your time & consideration to my letter, and your dedication to public service. My contact information is listed at the top of the letterhead and via email at *cody.downs@navy.mil*.

I wish you & your agency success going forward.

CODY DOWNS
United States Navy

RECEIVED
2017 MAR 16 AM 6:37
OFFICE OF THE
EXECUTIVE SECRETARIAT

2-23-17.

Dear Scott,

Just want to say congratulations and best wishes in your new role as the EPA administrator. I am proud to see a fellow TU law grad rise to the office!

We were at TU law school at the same time. I am not sure you would remember me, but I also practice environmental law and have since law school.

Again, Best Wishes

Cordially,

Elaheth Toyser

(b) (6)

Wall Art
Sante Fe, New Mexico
photo by
Elizabeth Joyner
© 2016

(b) (6)

ENDURING BEAUTY
This card is printed on fine art paper with pigmented inks.
Properly cared for, it will maintain its brilliance for generations.

Eliz

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

March 15, 2017

Elizabeth Joyner
(b) (6)

Dear Elizabeth,

Thank you for your note! I do remember you, and it was a blessing to hear from you. Thank you for your encouragement and for getting in touch with me. I hope you are doing well and your law practice is flourishing.

Sincerely,

Scott Pruitt

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

March 1, 2017

Todd Rokita
Member of Congress
4th District, Indiana
2439 Rayburn HOB
Washington, DC 20515

Dear Todd:

It was a pleasure speaking with you at the Presidents' address to Congress.

I look forward to working with you.

Sincerely,

E. Scott Pruitt

Good Pick!

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

March 1, 2017

Bill Huizenga
Member of Congress
2232 Rayburn Building
Washington, DC 20515

Dear Bill:

It was a pleasure speaking with you at the Presidents' address to Congress.

I look forward to working with you.

Sincerely,

E. Scott Pruitt

Good speech!

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

March 1, 2017

Greg Walden
Member of Congress
2nd District, Oregon
2185 Rayburn Building
Washington, DC 20515

Dear Greg:

It was a pleasure speaking with you at the Presidents' address to Congress.

I look forward to working with you.

Sincerely,

E. Scott Pruitt

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

March 1, 2017

Mona Hanna-Attisha, MD
Director, Pediatric Public Health Initiative
Hurley Children's Hospital at Hurley Medical
Center
One Hurley Plaza
Flint, Michigan 48503

Dear Dr. Hanna-Attishag:

It was a pleasure speaking with you at the Presidents' address to Congress.

I look forward to seeing you in the future.

Sincerely,

E. Scott Pruitt

Wonderful to meet you!

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

February 28, 2017

Ms. Catherine McCabe
Acting Administrator
Office of Administrator

Dear Catherine and Staff:

It was a great pleasure to meet with you last week. Thank you for making me feel so welcome. I hope you enjoyed the exchange as much as I did.

Our meeting was very helpful to me, and I appreciate the time you spent with me. I hope that you learned more about me and the goals I have for our agency. I truly look forward to our journey together.

Sincerely,

E. Scott Pruitt

Thank You for your kind hospitality!

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

February 28, 2017

Mr. Reginald Allen
Acting Deputy Chief of Staff
Office of the Administrator

Dear Reggie and Staff:

It was a great pleasure to meet with you last week. Thank you for making me feel so welcome. I hope you enjoyed the exchange as much as I did.

Our meeting was very helpful to me, and I appreciate the time you spent with me. I hope that you learned more about me and the goals I have for our agency. I truly look forward to our journey together.

Sincerely,

Scott

E. Scott Pruitt

Thank you for all your help!

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

February 28, 2017

Mr. John Reeder
Acting Chief of Staff
Office of Administrator

Dear John and Staff:

It was a great pleasure to meet with you last week. Thank you for making me feel so welcome. I hope you enjoyed the exchange as much as I did.

Our meeting was very helpful to me, and I appreciate the time you spent with me. I hope that you learned more about me and the goals I have for our agency. I truly look forward to our journey together.

Sincerely,

Scott

E. Scott Pruitt

Thanks for all your help!

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

February 28, 2017

Mr. Mike Flynn
Acting Deputy Administrator
Office of Administrator

Dear Mike and Staff:

It was a great pleasure to meet with you last week. Thank you for making me feel so welcome. I hope you enjoyed the exchange as much as I did.

Our meeting was very helpful to me, and I appreciate the time you spent with me. I hope that you learned more about me and the goals I have for our agency. I truly look forward to our journey together.

Sincerely,

Scott

E. Scott Pruitt

Thanks for all your help!

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

February 28, 2017

Ms. Shannon Kenny
Acting Associate Administrator
Office of Home Land Security

Dear Shannon and Staff:

It was a great pleasure to meet with you last week. Thank you for making me feel so welcome. I hope you enjoyed the exchange as much as I did.

Our meeting was very helpful to me, and I appreciate the time you spent with me. I hope that you learned more about me and the goals I have for our agency. I truly look forward to our journey together.

Sincerely,

Scott

E. Scott Pruitt

Very much enjoyed the dialogue!

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

February 28, 2017

Mr. David Kling
Acting Associate Administrator
Office of Public Engagement

Dear David and Staff:

It was a great pleasure to meet with you last week. Thank you for making me feel so welcome. I hope you enjoyed the exchange as much as I did.

Our meeting was very helpful to me, and I appreciate the time you spent with me. I hope that you learned more about me and the goals I have for our agency. I truly look forward to our journey together.

Sincerely,

E. Scott Pruitt

Very much enjoyed the dialogue!

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

February 28, 2017

Mr. Tom Brennan
Acting Associate Administrator
Office of Public Engagement

Dear Tom and Staff:

It was a great pleasure to meet with you last week. Thank you for making me feel so welcome. I hope you enjoyed the exchange as much as I did.

Our meeting was very helpful to me, and I appreciate the time you spent with me. I hope that you learned more about me and the goals I have for our agency. I truly look forward to our journey together.

Sincerely,

Scott

E. Scott Pruitt

Very much enjoyed the dialogue!

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

February 28, 2017

Mr. George Hull
Acting Associate Administrator
Office of Public Affairs

Dear George and Staff:

It was a great pleasure to meet with you last week. Thank you for making me feel so welcome. I hope you enjoyed the exchange as much as I did.

Our meeting was very helpful to me, and I appreciate the time you spent with me. I hope that you learned more about me and the goals I have for our agency. I truly look forward to our journey together.

Sincerely,

Scott

E. Scott Pruitt

Very much enjoyed the dialogue!

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

February 28, 2017

Mr. Mike Shapiro
Acting Associate Administrator
Office of Water

Dear Mike and Staff:

It was a great pleasure to meet with you last week. Thank you for making me feel so welcome. I hope you enjoyed the exchange as much as I did.

Our meeting was very helpful to me, and I appreciate the time you spent with me. I hope that you learned more about me and the goals I have for our agency. I truly look forward to our journey together.

Sincerely,

Scott

E. Scott Pruitt

Very much enjoyed the dialogue!

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

February 28, 2017

Mr. Barry Breen
Acting Associate Administrator
Office of Land and Emergency Management

Dear Barry and Staff:

It was a great pleasure to meet with you last week. Thank you for making me feel so welcome. I hope you enjoyed the exchange as much as I did.

Our meeting was very helpful to me, and I appreciate the time you spent with me. I hope that you learned more about me and the goals I have for our agency. I truly look forward to our journey together.

Sincerely,

Scott

E. Scott Pruitt

Very much enjoyed the dialogue!

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

February 28, 2017

Ms. Jane Nishda
Acting Associate Administrator
Office of International and Tribal Affairs

Dear Jane and Staff:

It was a great pleasure to meet with you last week. Thank you for making me feel so welcome. I hope you enjoyed the exchange as much as I did.

Our meeting was very helpful to me, and I appreciate the time you spent with me. I hope that you learned more about me and the goals I have for our agency. I truly look forward to our journey together.

Sincerely,

Scott

E. Scott Pruitt

Very much enjoyed the dialogue!

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

February 28, 2017

Mr. Arthur Elkins, Jr.
Associate Administrator
Office of Inspector General

Dear Arthur and Staff: Art

It was a great pleasure to meet with you last week. Thank you for making me feel so welcome. I hope you enjoyed the exchange as much as I did.

Our meeting was very helpful to me, and I appreciate the time you spent with me. I hope that you learned more about me and the goals I have for our agency. I truly look forward to our journey together.

Sincerely,

Scott

E. Scott Pruitt

Very much enjoyed the dialogue!

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

February 28, 2017

Mr. Kevin Minoli
Acting Associate Administrator
Office of General Counsel

Dear Kevin and Staff:

It was a great pleasure to meet with you last week. Thank you for making me feel so welcome. I hope you enjoyed the exchange as much as I did.

Our meeting was very helpful to me, and I appreciate the time you spent with me. I hope that you learned more about me and the goals I have for our agency. I truly look forward to our journey together.

Sincerely,

E. Scott Pruitt

Very much enjoyed the dialogue!

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

February 28, 2017

Mr. Steven Fine
Acting Associate Administrator
Office of Environmental Information

Dear Steve and Staff:

It was a great pleasure to meet with you last week. Thank you for making me feel so welcome. I hope you enjoyed the exchange as much as I did.

Our meeting was very helpful to me, and I appreciate the time you spent with me. I hope that you learned more about me and the goals I have for our agency. I truly look forward to our journey together.

Sincerely,

Scott

E. Scott Pruitt

Very much enjoyed the dialogue!

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

February 28, 2017

Mr. Lawrence Starfield
Acting Associate Administrator
Office of Enforcement and Compliance
Assurance

Larry

Dear Lawrence and Staff:

It was a great pleasure to meet with you last week. Thank you for making me feel so welcome. I hope you enjoyed the exchange as much as I did.

Our meeting was very helpful to me, and I appreciate the time you spent with me. I hope that you learned more about me and the goals I have for our agency. I truly look forward to our journey together.

Sincerely,

E. Scott Pruitt

Very much enjoyed the dialogue!

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

February 28, 2017

Mr. David Bloom
Acting Associate Administrator
Office of Chief Financial Officer

Dear David and Staff:

It was a great pleasure to meet with you last week. Thank you for making me feel so welcome. I hope you enjoyed the exchange as much as I did.

Our meeting was very helpful to me, and I appreciate the time you spent with me. I hope that you learned more about me and the goals I have for our agency. I truly look forward to our journey together.

Sincerely,

E. Scott Pruitt

Very much enjoyed the dialogue!

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

February 28, 2017

Ms. Wendy Cleland-Hamnett
Acting Associate Administrator
Office of Chemical Safety and
Pollution Prevention

Dear Wendy and Staff:

It was a great pleasure to meet with you last week. Thank you for making me feel so welcome. I hope you enjoyed the exchange as much as I did.

Our meeting was very helpful to me, and I appreciate the time you spent with me. I hope that you learned more about me and the goals I have for our agency. I truly look forward to our journey together.

Sincerely,

Scott

E. Scott Pruitt

Very much enjoyed the dialogue!

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

February 28, 2017

Ms. Sarah Dunham
Acting Associate Administrator
Office of Air and Radiation

Dear Sarah and Staff:

It was a great pleasure to meet with you last week. Thank you for making me feel so welcome. I hope you enjoyed the exchange as much as I did.

Our meeting was very helpful to me, and I appreciate the time you spent with me. I hope that you learned more about me and the goals I have for our agency. I truly look forward to our journey together.

Sincerely,

Scott

E. Scott Pruitt

Very much enjoyed the dialogue!

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

February 28, 2017

Ms. Donna Vizian
Acting Associate Administrator
Office of Administration and Resources
Management

Dear Donna and Staff:

It was a great pleasure to meet with you last week. Thank you for making me feel so welcome. I hope you enjoyed the exchange as much as I did.

Our meeting was very helpful to me, and I appreciate the time you spent with me. I hope that you learned more about me and the goals I have for our agency. I truly look forward to our journey together.

Sincerely,

Scott

E. Scott Pruitt

Very much enjoyed the dialogue.

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

2-22-17

Scott Pruitt:

I kept meaning to write you when I saw you on Fox News as Attorney General. My grandfather was John Milt Pruitt and my grandmother was Celina Pauline Hughes. When my mother was small, my grandfather moved his family to Oklahoma because his brother had moved out there. Some years later, grandpa moved everyone back to Burkesville, Ky. to help his mom + dad. Grandpa + his brother had married sisters, so my mom said they were all double cousins. She missed them

(over)

and loved them. My mother, Esther Pritt and my aunt Ovie went out to visit some of them years ago and some visited us when I was little.

I am 75 now and have always wondered what happened to our Ok. relatives.

I hope you are a distant cousin. But even if you are not, I wish you the very best. I'm so glad that you are conservative and care about the future of our country.

God bless you!

Betty Mae

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

March 15, 2017

Betty Marr
(b) (6)

Dear Betty,

I very much enjoyed your letter to me and learning about your family. I don't know if we are related but from reading your note – it makes me hope that we are! Thank you for the encouraging comments. I hope you are doing well.

God bless,

Scott Pruitt

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

The Administrator
Washington, D. C. 20460

March 14, 2017

Lynn Good, Chairman, President and CEO
Duke Energy
550 South Tryon Street
Charlotte, NC 28202

Dear Lynn:

It was a pleasure meeting with you last week. I sincerely appreciate the time you spent with me. Our time together was very helpful. I am hopeful that we can work out some of the issues discussed.

I truly look forward to our working on mutual solutions.

Sincerely

Scott Pruitt

Internet Address (URL) • http://www.epa.gov
Recycled/Recyclable • Printed with Vegetable Oil Based Inks on Recycled Paper (Minimum 50% Postconsumer content)

Date: Thu Mar 16 09:53:25 EDT 2017
From: Hope.Brian@epamail.epa.gov
To: CMS.OEX@epamail.epa.gov
Subject: FW: Wind Energy Subsidy

-----Original Message-----
From: Otter [mailto: (b) (6)
Sent: Wednesday, March 15, 2017 6:30 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: Wind Energy Subsidy

Dear Mr. Pruitt,

Glad to hear of your plan to drastically cut the fat from the bloated, abused and tyrannical EPA! At this time my main focus and hope is centered on the insane subsidy being paid to the the BIG WIND INDUSTRIAL COMPLEXES.

Since 1992 it has been one payout after another. It's high time this "fledging" industry fledge! A baby born during that year would now be grown, through college, married and having their own babies.

These giant behemoths now litter pristine countryside and are causing negative health affects. 200-2 megawatt turbines (523' tall) were put in my county last year by Berkshire Hathaway Energy Wind. It's laughable that Warren Buffett arrogantly says without the federal government subsidy there would be no wind industry. Yet this billionaire stands at the front of this welfare line!

A huge portion of this money is going to foreign investors. More than a few European countries have now said NO MORE! Wind is at the top of the renewable ladder to make it look efficient. However, we keep reliable plants in full operation to cover the times when the wind doesn't blow. As usual the tax payer gets the double whammy.

Please discontinue this long abused subsidy and make these companies stand on their own.

Thank you,

Barb Otto
(b) (6)
(b) (6)

The LORAX

By

Dr. Seuss

earth-friendly
PRINTED ON RECYCLED PAPER
the LORAX project

For Audrey, Lark and Lea

With Love

® and copyright © by Dr. Seuss Enterprises, L.P. 1971, renewed 1999.
All rights reserved.
Published in the United States by Random House Children's Books,
a division of Random House, Inc., New York.

RANDOM HOUSE and colophon are registered trademarks of Random House, Inc.

Visit us on the Web!
www.randomhouse.com/kids
www.seussville.com

Educators and librarians, for a variety of teaching tools, visit us at www.randomhouse.com/teachers

Library of Congress Cataloging-in-Publication Data
Geisel, Theodor Seuss, 1904–1991. The Lorax, by Dr. Seuss. New York, Random House {1971} {70}
p. col. illus. 29 cm. SUMMARY: The Once-ler describes the results of the local pollution problem.
{1. Stories in rhyme} I. Title. PZ8.3.G276Lo {E} 74-158378
ISBN: 978-0-394-82337-9 (trade) — ISBN: 978-0-394-92337-6 (lib. bdg.)

Printed in the United States of America
95

PRINTED ON RECYCLED PAPER

Random House Children s Books supports the First Amendment and celebrates the right to read.

Join the Campaign to Help Save the Real-Life Lorax Forest

"UNLESS someone like you cares a whole awful lot, nothing is going to get better. It's not." —The Lorax

Nearly forty years ago, when Random House first published Dr. Seuss's *The Lorax,* it sent forth a clarion call—to industry and consumers alike—to conserve the earth's precious and finite natural resources. The message of this whimsical yet powerful tale resonates today more profoundly than ever. In every corner of the world, we are at risk of losing real-life Brown Bar-ba-loots, Swomee-Swans, Humming-Fish, Truffula Trees, and the forests they all inhabit.

Together, Dr. Seuss Enterprises and Random House proudly sponsor **The Lorax Project**, an ongoing multifaceted initiative designed to raise awareness of environmental issues and inspire earth-friendly action worldwide by passionate individuals of all ages.

Dr. Seuss Enterprises and Random House support conservation groups around the world to enhance critical activities needed to protect the real-life Lorax forests, whose preservation is essential to *all* life on our planet.

To learn more about The Lorax Project and how *you* can help, visit www.theloraxproject.com.

RANDOM HOUSE
www.seussville.com

US $16.99 / $21.99 CAN
ISBN 978-0-394-82337-9
51699
9 780394 823379

GLOBAL WARMING, CLIMATE CHANGE AND ALL THAT GUFF

Introduction (April 2007, updated December 2013)

"Nobody disagrees with the fact that global warming has occurred. It was reported by real scientists, using rigid discipline and highly sophisticated instruments, that the ***global average*** *had increased by 0.9 degrees Celsius from 1850 to 2000. (That's less than 1 degree in 150 years. Some places on earth had warmed, some had cooled, that's why it was called an average.) Most of the warming had occurred by 1960 - 0.75 degrees. The global average then cooled for about 2 decades (remember the bogus scare in the '60's and '70's about the coming ice age?) then began to warm again in the early 1980's. It stopped warming in 1998 and began another short cooling phase in 2002. In 2011, the global average temperature was 14.9 degrees Celsius, about the middle of the 2 to 3 degree range the globe has experienced for the last 10,000 years. If the cycling continues, the average may increase by another degree in 100 years or so. Thus, somewhere around 2100 AD the earth could be as warm as it was in 1000 AD, the year Leif Eriksson was prowling around Newfoundland and Labrador. That's right, scientists have discovered that the world was one degree warmer in 1000 AD than it was in 2000 AD. Furthermore, if the cycles continue much as they have for the past 800 thousand years, Toronto will be buried under kilometers of ice 80 thousand years or so from now when the next glacial period has reached its peak.*

The claim that global warming/climate change is being caused in any measurable and/or controllable way by human activity is bogus*. The frenzied claims of human culpability are made by sinister, publicity-seeking activists who are distorting the facts in order to get power and money for themselves and their "causes". Ignorant politicians are pandering to the pressure exerted by these fanatical extremists. They are planning to throw billions of public money (our taxes) at these grant-seeking frauds in what will one day be known as the greatest scam in recorded history.*

POLLUTION *is a contemporary problem - air, water and land pollution. But, these problems are LOCAL, not global, and they are curable by currently available and affordable technologies. These technologies are deserving of public spending.*

WARMISTS, ALARMISTS, CARBONISTAS, CATASTROPHISTS (WACCs)

* Global Warming is caused by increasing CO_2 in the atmosphere (enhanced Greenhouse Effect)

* Humans burning fossil fuels cause increased CO_2 in the atmosphere

* Global Warming will cause catastrophic changes in the earth's climate

* Therefore, we must immediately and drastically reduce the use of fossil fuels in order to save the planet

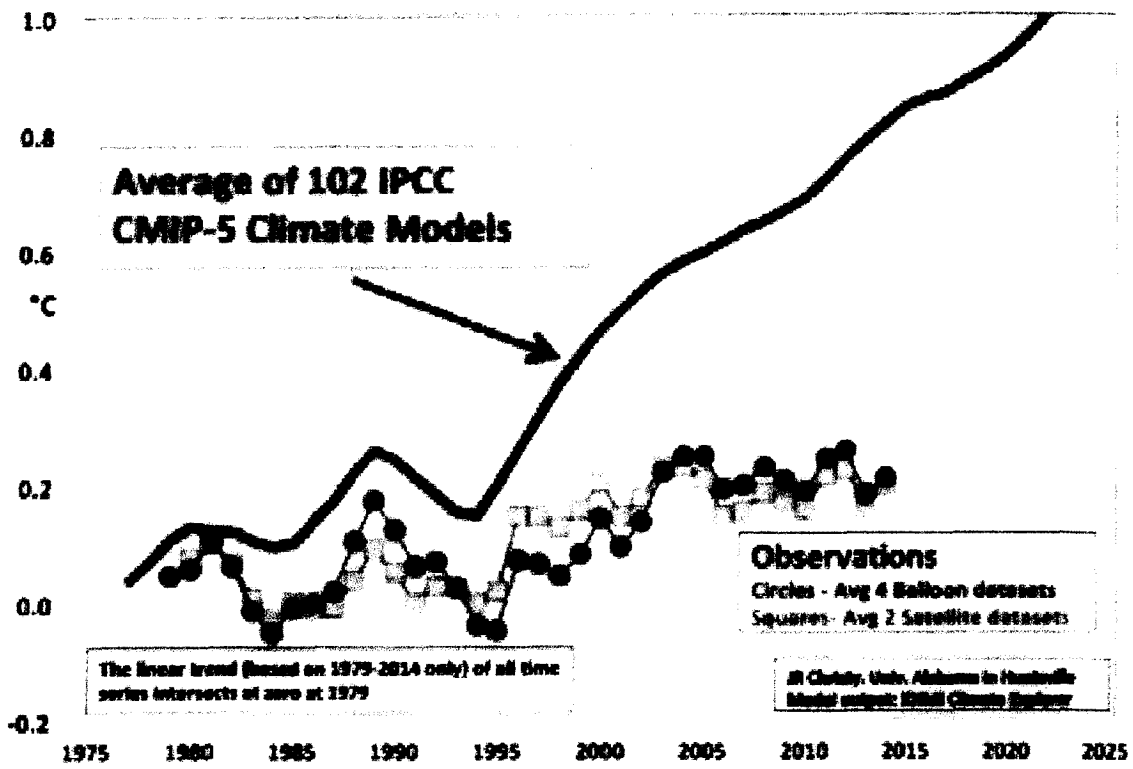
THE BASES FOR THE WACC'S POSITION

* 104 computer models, commissioned by the UN's IPCC to "prove" catastrophic, anthropogenic Global Warming

* "Climategate" 2009 - 2,000 e-mails from 42 computer modellers

* 12,000+ papers "scoured" by 2 students looking for any that "proved" catastrophic, anthropogenic Global Warming. They found 64, which, on further scrutiny was reduced to 41

* "97% consensus" based on 87 WACCs PLUS U. of ILLINOIS student in 2008 found 75 of 77 earth scientists who posited global warming AND that it was caused by humans burning fossil fuels.



CAPTION: Five-year running mean temperatures predicted by the UN's climate models, and observed lower atmospheric temperatures from weather balloons and satellites.

http://www.cato.org/publications/commentary/when-will-climate-scientists-say-they-were-wrong

REAL CLIMATE SCIENTISTS

* NO evidence for catastrophic Global Warming

* Evidence proves that humans burning fossil fuels contribute a miniscule amount to the Greenhouse Effect

* CO_2 is beneficial to the planet

REAL CLIMATE SCIENCE

* 540+ peer-reviewed, field research studies

* Thousands of cores from glaciers, ocean and lake beds

* Thousands of satellites, buoys and land-based stations measuring temperatures in the atmosphere, oceans and on land

* 31,400 scientists signed the Oregon Petition (the largest of many) - a 12-page summary of just 132 of those studies. The Oregon Petition states: "There is no convincing scientific evidence that human release of carbon dioxide, methane or other greenhouse gases is causing, or will in the foreseeable future, cause catastrophic heating of the earth's atmosphere and disruption of the earth's climate."

A. CYCLES

Ages - millions of years

Glacials and Interglacials - thousands of years

Periods - hundreds of years

Phases - 10's of years

The earth is about four and a half billion years old. By about two and a half billion years ago, water and crustal development had progressed to the point where glaciations could begin. Paleontologists claim to have studied only the Ice and Warm Ages of the last 800 million years.

Ice Ages occur when there is some ice somewhere on earth all year round. Warm Ages occur when there is no ice at all anywhere on earth all year round.

* 800-600 million years ago - ICE AGE - called "snowball earth". Ice extended south and north almost to the equator. Only single cell or "co-operating" cellular life and only in the oceans.

* 600-460 mya - WARM AGE - Cambrian explosion of multicellular life forms, all still only in the oceans. Followed by a short ICE AGE.

* 430-350 mya - WARM AGE - plant life moved out of the oceans onto land therefore animal life could follow.

* 350-260 mya - ICE AGE - enzyme evolved that could reduce plant fibre so coal bedds laid down world wide.

* 260-40 mya - WARM AGE major , age of dinosaurs. Ellesmere Island covered in tropical forest. Oil and gas resources laid down.

*Notice a pattern? Carbon is the structural material of ALL life on this planet. When plants or animals die, they decompose into coal or oil and natural gas,

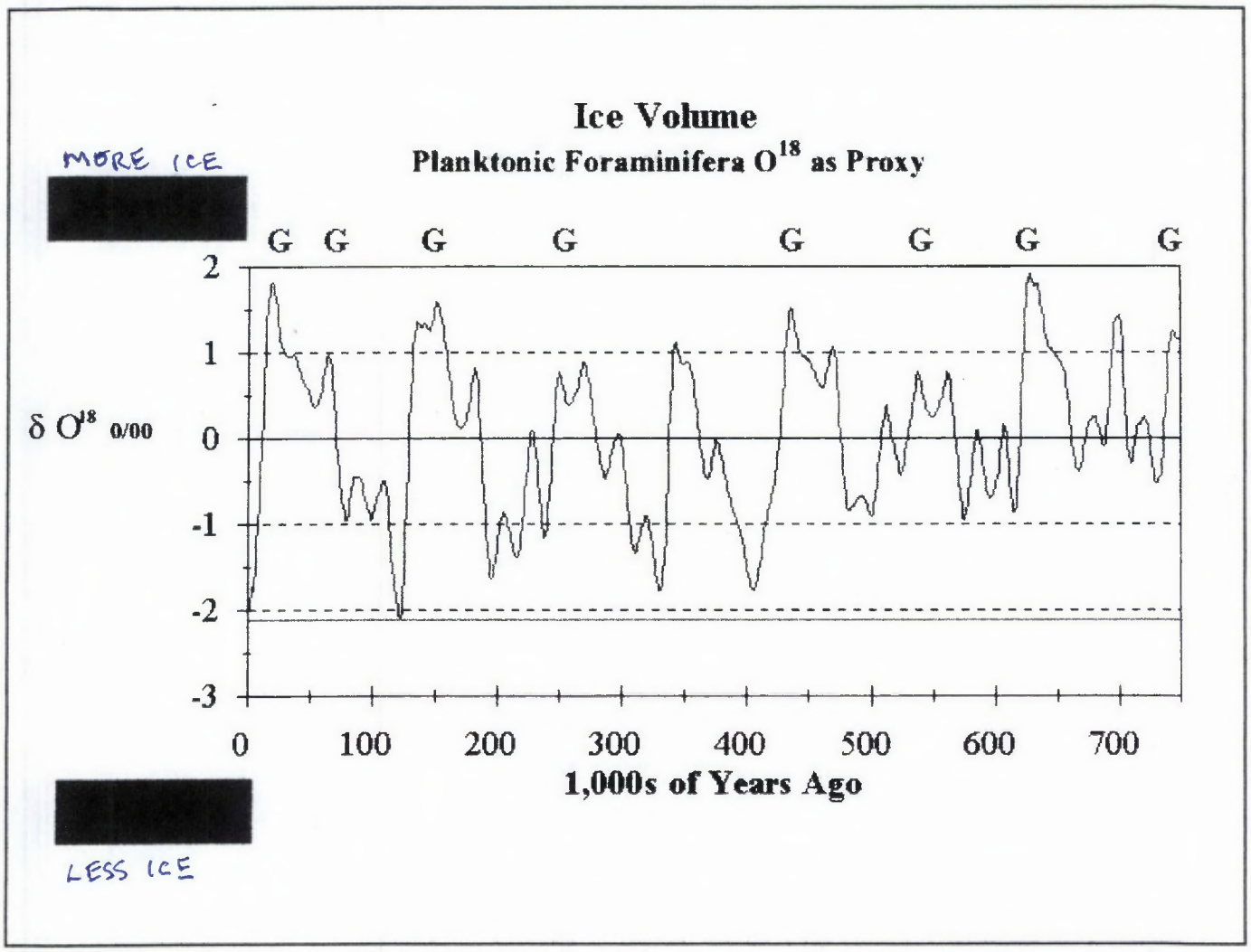
* We are now living in an ICE AGE which is proving to be one of the colder ones ever.

ICE & WARM AGE CYCLES

Years Ago (millions)	Geologic AGE	ERA	PERIOD	Years Ago (millions)
800 – 600	ICE	Proterozoic	Pre-Cambrian	to 590
600 – 460	WARM	Paleozoic (590)	Cambrian	590 – 505
	"	"	Ordovician	505 – 438
460 – 430	ICE	"	Ordovician	505 – 438
430 – 350	WARM	"	Silurian	438 – 408
	"	"	Devonian	408 – 360
350 – 260	ICE	"	Carboniferous	360 – 286
	"	"	Permian	286 – 248
260 – 40	WARM	Mesozoic (248)	Triassic	248 – 213
	"	"	Jurassic	213 – 144
	"	"	Cretaceous	144 – 65
	"	Tertiary	Paleocene	65 – 55
	"	"	Eocene	55 – 38
40 – today	ICE	"	Oligocene	38 – 25
	"	"	Miocene	25 – 5
	"	"	Pliocene	5 – 1
	"	Quarternary	Pleistocene	1 - .01
	"	"	Holocene	.01 - >

Sorce: Webster's New World Encyclopedia

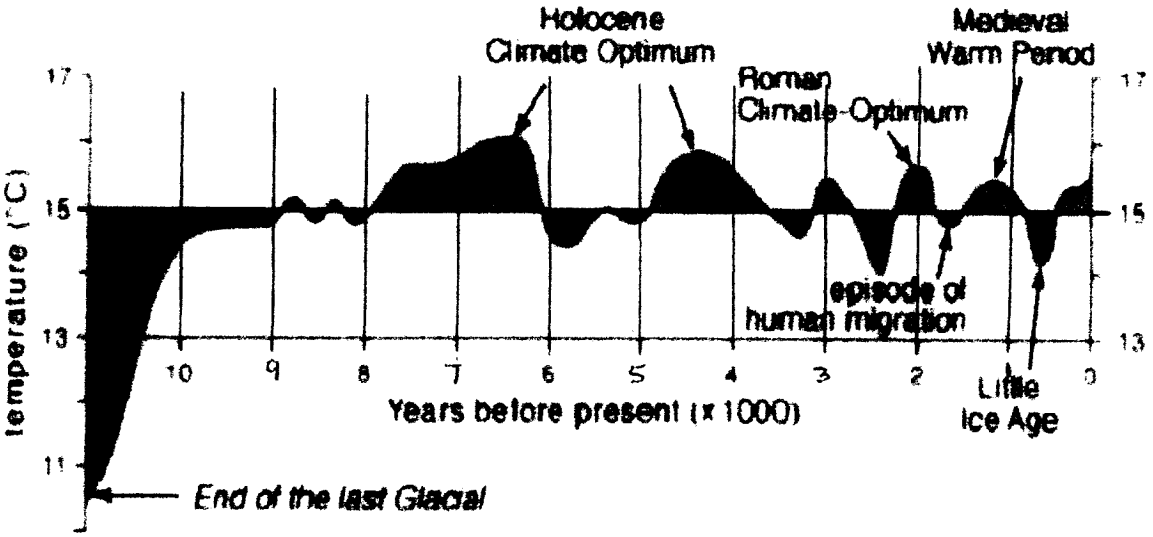
Graph of Ice Volume on the Earth



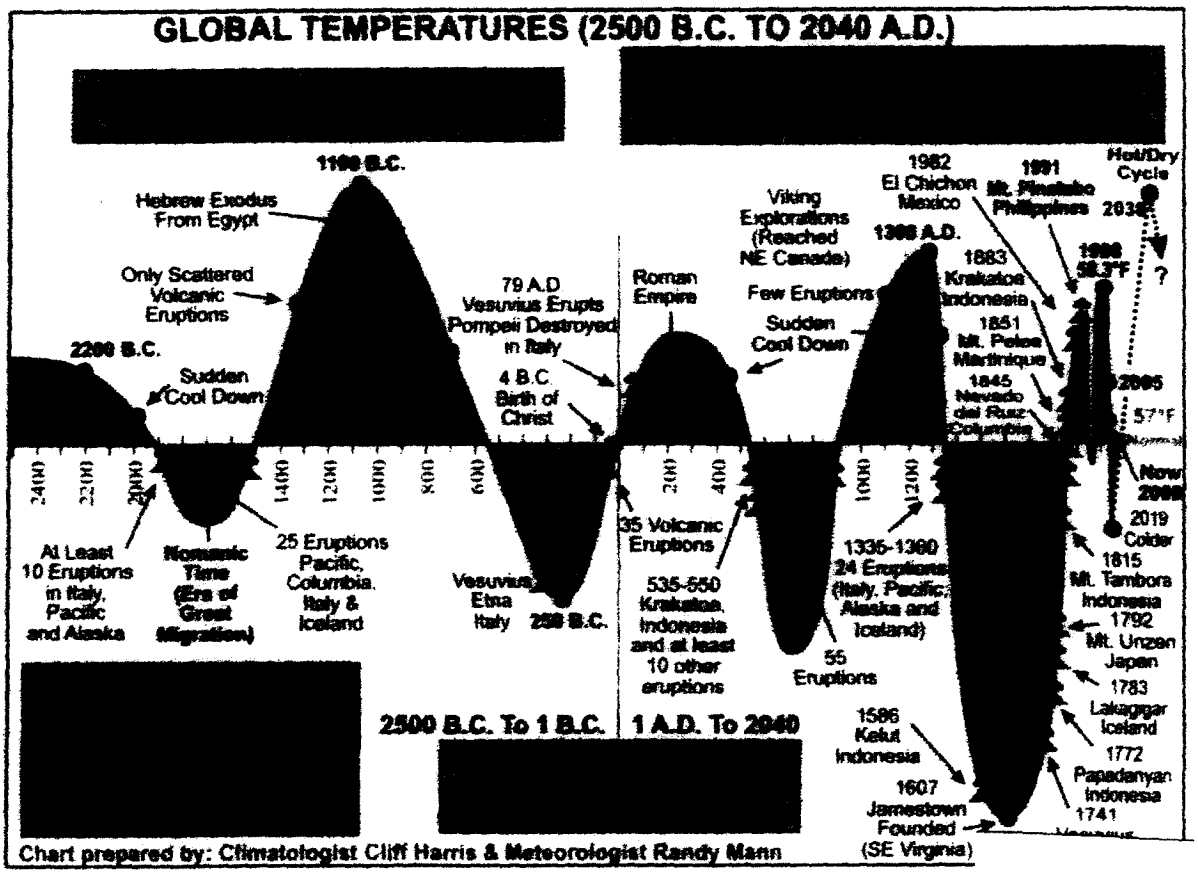
This graph shows the general trend of changing ice volume on the Earth over the past 750,000 years. The extent of ice is estimated using changes in the amount of different isotopes of oxygen found in the calcium carbonate shells of planktonic sea creatures (foraminifera). These data are from Imbrie and others (1984). The portions of the curve marked with "G"s are times when glaciers may have reached into the midwestern U.S. The timing of midwestern U.S. glacial advances prior to 40,000 years ago are not well known. The advances indicated on this graph are taken from Richmond and Fullerton (1986).

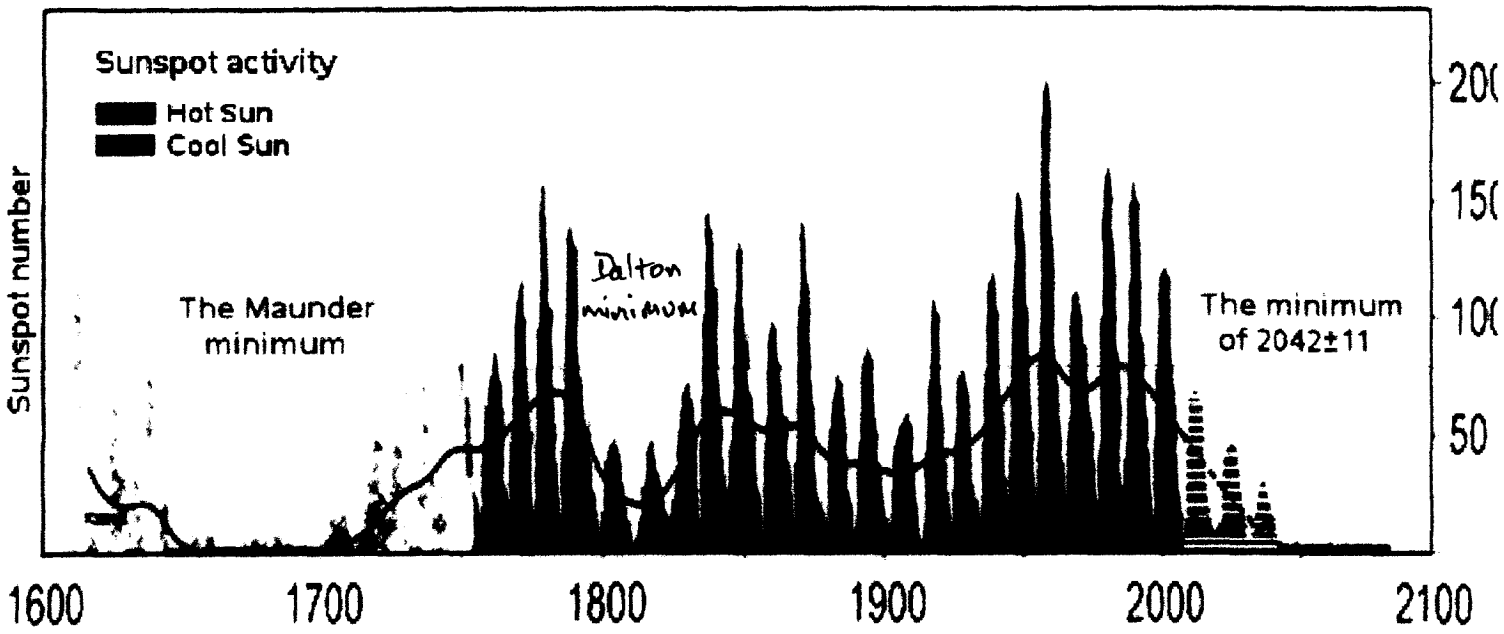
1. 10,000 years ago -agriculture and the first towns at Jericho and Eynan in the Jordan valley.
2. Climate stabilizing - very little temperature change.
3. Warm period - last major melting of the glaciers meant ocean levels and shorelines about the same as now.
4. Cooling dislocations subsequent to "The Flood".
5. Warming stimulates invention of writing, building of step pyramids in Sumer.
6. Cooling sends Sumerians viking into Egypt.
7. Warming stimulates Old Kingdom pyramid building, brain surgery in Egypt - writing the myths underlying the Judeo-Christian and Muslim religions in Mesopotamia.
8. Cooling witnesses the declines of the Middle Kingdom in Egypt and the city states in Mesopotamia.
9. High Bronze Age cultures in Egypt (Egyptians calculated the circumference of the earth almost exactly and circumnavigated Africa) and Crete, Hittites, Israel, Babylonia etc.
10. Cooling brought on collapse of empires and a "dark age" from which men emerged writing about one-eyed giants, women whose hair was snakes who could turn men to stone, and women who could turn men into pigs with a simple glance.
11. The Roman Warm Period - stimulated the progresses of the Greek and Roman empires.
12. Cooling Period brought on the "Dark Ages" which witnessed the collapse of Roman civilization and the ravages of the barbarians all over europe.
13. Medieval Warm Period stimulated the building of universities and cathedrals, viking and Italian city explorations, the renaissance, etc.
14. The "Little Ice Age" cooling period brought on the plagues wars, famines, migrations and dislocations of medieval institutions.
15. 1850 to present - we're in a Warm Period that history may call the Anglo-American Warm Period. Think of all the advances that have been made in the last 160 years in public health, transportation, civil rights, medicine, communications, education - in all areas of human endeavour. And we've grown from 1 billion to 7 billion people who, in percentage terms live much longer, better fed, healthier lives.

For a broader view, the graph below shows a temperature reconstruction for the past 11,000 years:



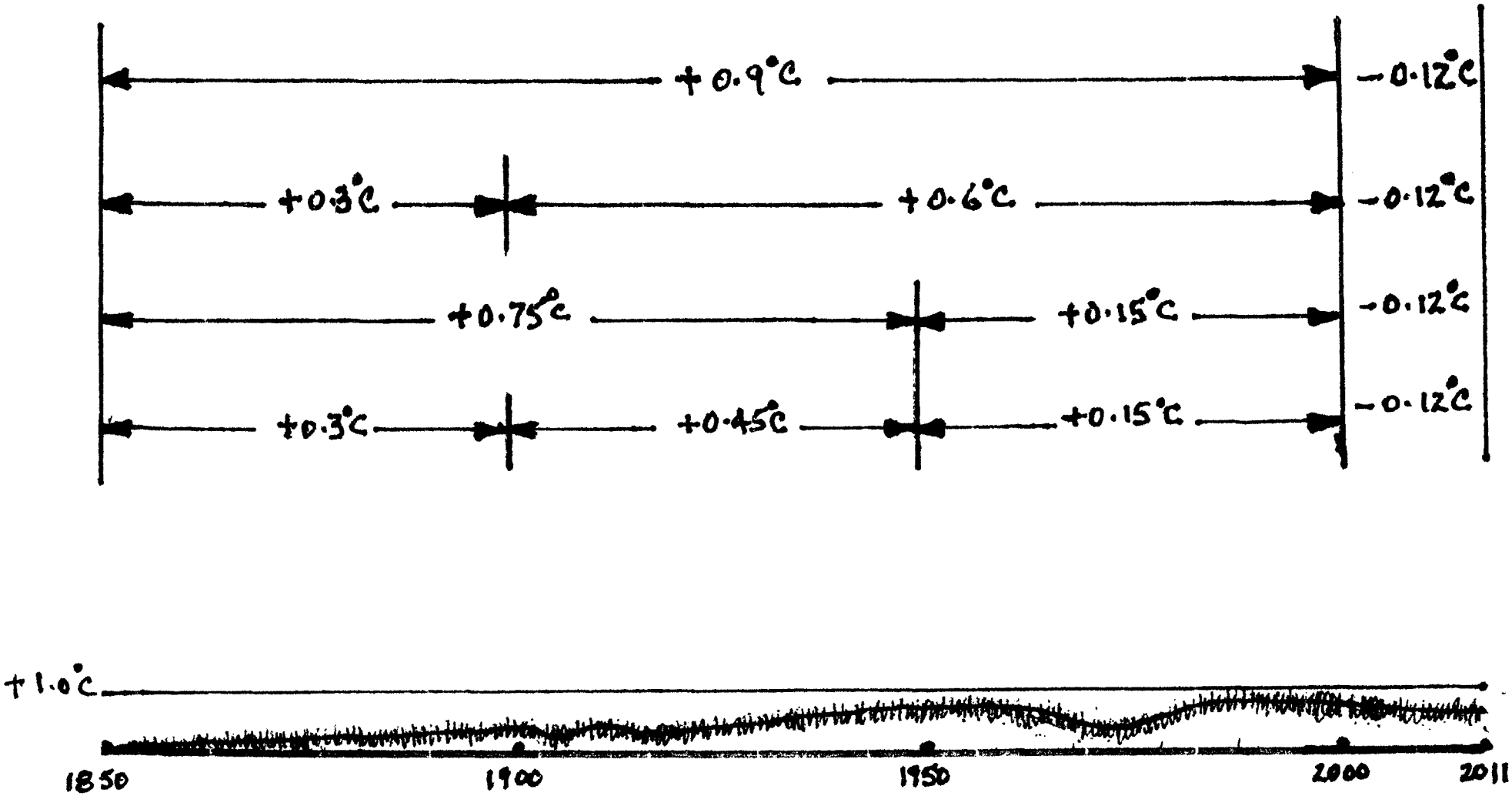
After Dansgaard, 1969 and Schonwiese, 1995


GLOBAL TEMPERATURES (2500 B.C. TO 2040 A.D.)
[redacted]
[redacted]
1100 B.C.
Hebrew Exodus From Egypt
Only Scattered Volcanic Eruptions
2200 B.C.
Sudden Cool Down
79 A.D Vesuvius Erupts Pompeii Destroyed in Italy
4 B.C Birth of Christ
Roman Empire
Viking Explorations (Reached NE Canada)
Few Eruptions
Sudden Cool Down
1300 A.D.
1982 El Chichon Mexico
1991 Mt. Pinatubo Philippines
1883 Krakatoa Indonesia
1851 Mt. Pelee Martinique
1845 Nevado del Ruiz Columbia
Hot/Dry Cycle
2034
?
2005
57°F
Normal
Now 2000
2019 Colder
2400
2200
2000
1400
1200
1000
800
600
200
400
1000
1200
At Least 10 Eruptions in Italy, Pacific and Alaska
Romantic Time (Era of Great Migration)
25 Eruptions Pacific, Columbia, Italy & Iceland
Vesuvius Etna Italy
250 B.C.
35 Volcanic Eruptions
535-550 Krakatoa, Indonesia and at least 10 other eruptions
55 Eruptions
1336-1360 24 Eruptions (Italy, Pacific, Alaska and Iceland)
1815 Mt. Tambora Indonesia
1792 Mt. Unzen Japan
1783 Lakaggar Iceland
1772 Papadanyan Indonesia
1741
1586 Kelut Indonesia
1607 Jamestown Founded (SE Virginia)
[redacted]
2500 B.C. To 1 B.C.
1 A.D. To 2040
[redacted]
Chart prepared by: Climatologist Cliff Harris & Meteorologist Randy Mann



http://alfin2100.blogspot.ca/2009/10/in-solar-powered-climate-co2-is.html

ACTUAL GLOBAL WARMING SINCE THE END OF THE LITTLE ICE AGE



C.W. CONN
APRIL 2012

B. THE GREAT CARBON DIOXIDE HOAX

What is the "Greenhouse effect"? It's the atmosphere.

The sun has been blasting out energies all over and around its solar system for 5 billion years or so and will continue to do so for another 10. The radiation hitting the earth is predominantly short wave. 30% of it is reflected right back into space by clouds, snow and ice. The remaining 70% strikes land or water where it is altered and radiated back as long waves. These long waves cannot penetrate "greenhouse gases" and are therefore doomed to bounce back and forth between the earth and the atmosphere causing both to warm. That the world doesn't keep going straight up in temperature is because of the daily nighttime cooling, the constant heat and gas exchange between the oceans and the atmosphere, and because some of the long wave radiation does manage to sneak back into space eventually.

OF WHAT IS THE ATMOSPHERE COMPOSED?

Nitrogen (N2)	78.084000%	
Oxygen (O2)	20.946000%	
Argon (Ar)	0.934000%	(sub-total 99.964%)
Carbon Dioxide (CO2)	0.040000%	400 parts per million parts!
Neon (Ne)	0.001818%	
Helium (He)	0.000524%	
Methane (CH4)	0.000174%	
Krypton (Kr)	0.000114%	
Hydrogen (H2)	0.000055%	
Nitrous Oxide (N2O)	trace	
Xenon (Xe)	trace	
Ozone (O3)	trace	
Nitrogen Dioxide (NO2)	trace	
Iodine (I)	trace	
Carbon Monoxide (CO)	trace	
Ammonia (NH2)	trace	
4 Fluorcarbons (various)	trace	

20

(Note: Percentages add to slightly more than 100 due to rounding of the first four.)

AND water vapour - clouds, mists, fogs, etc.

WHAT ARE THE "GREENHOUSE GASES"?

Water Vapour (H_2O)	95-97%	
Carbon Dioxide (CO_2)	5-3%	400 ppm
Methane (CH_4)		1.74 ppm
Nitrous Oxide (N_2O)		trace
4 Fluorcarbons (various)		trace

That's it!

The oceans cover more than 70% of the earth's surface and contain more than 100 times the concentration of CO_2 than the atmosphere does.

The oceans are constantly absorbing from and emitting into the atmosphere CO_2.

WHEN THE EARTH WARMS, THE OCEANS EMIT MORE CO_2 INTO THE ATMOSPHERE THAN THEY ABSORB.

WHEN THE EARTH COOLS, THE OCEANS ABSORB MORE CO_2 FROM THE ATMOSPHERE THAN THEY EMIT INTO IT.

IN OTHER WORDS, GLOBAL WARMING CAUSES MORE CO_2 IN THE ATMOSPHERE, NOT THE OTHER WAY AROUND!

SOURCES OF ATMOSPHERIC CO_2

OCEANS, volcanoes, animal exhalations - 95%.
Humans burning fossil fuels - 5%.

Let's do the math:

Dry gases Carbon Dioxide, Methane, Nitrous Oxide and Fluorcarbons contribute 3 - 5% to the Greenhouse effect. Say 5%.

Therefore, Humans burning fossil fuels X dry gases contributing to the Greenhouse Effect:

5% X 5% = 0.25%, A QUARTER OF 1%. (CO_2 is even less because methane and the other dry gases are stronger per molecule.)

CARBON DIOXIDE IS GOOD FOR US!

"Human use of coal, oil and natural gas has not harmfully warmed the earth, and the extrapolation of current trends shows that it will not do so in the foreseeable future. The CO2 produced does, however, accelerate the growth rates of plants and also permits plants to grow in drier regions. Animal life, which depends upon plants, also flourishes, and the diversity of plant and animal life is increased."

"As coal, oil and natural gas are used to feed and lift from poverty vast numbers of people across the globe, more CO2 will be released into the atmosphere. This will help to maintain and improve the health, longevity, prosperity and productivity of all people."

From the conclusion of the Oregon Project summary.

Interesting article
Edmonton Sun, by Mark Bonokoski.

1.

According to my sources, Canada has 990-million acres of forests, 370-million acres of wetlands and167-million acres of crop yielding farmland. That's 1,527,000,000 acres of vegetation
These are known as "carbon sinks".
Biologists tell us that trees absorb about 2.6 tones of carbon per acre.
So if you do the math, 990-million acres x 2.6 tones per acre = 2.574 billion tones of carbon being absorbed every year.
Now if you do more math: 36-trillion tones {the total amount of world emission} x (1.67% / Canada) = 601.2-million tones.
This is the amount of carbon that Canada contributes to world emissions.
In the forests alone, Canada absorbs more than four times the amount of carbon that it emits.
This means that the other three quarters of our forests are being sustained by carbon emitted by the rest of the world.
This calculation does not take into account either our wetlands or farmlands that also absorb carbon.
Canada really couldn't get any greener, so why are our politicians hell bent on punishing us with carbon taxes?

2. The U.S. was concerned about the potential dangers of heightened CO2 levels in confined spaces like submarines and spacecraft. So NASA did the research and found that debilitating effects on people began to be felt as follows:

- a 0.5% level of CO2 for 1,000 days. That's 5,000 ppm for 1,000 days.
- a 2.5% level of CO2 for 1 hour or 24 hours. That's 25,000 ppm

Looks like we have a long way to go before becoming alarmed!

Charles Conn
905-212-9111
Email: cwc@ceconn.com
Web: http://ceconn.com

C. CATASTROPHIC OCEAN RISING

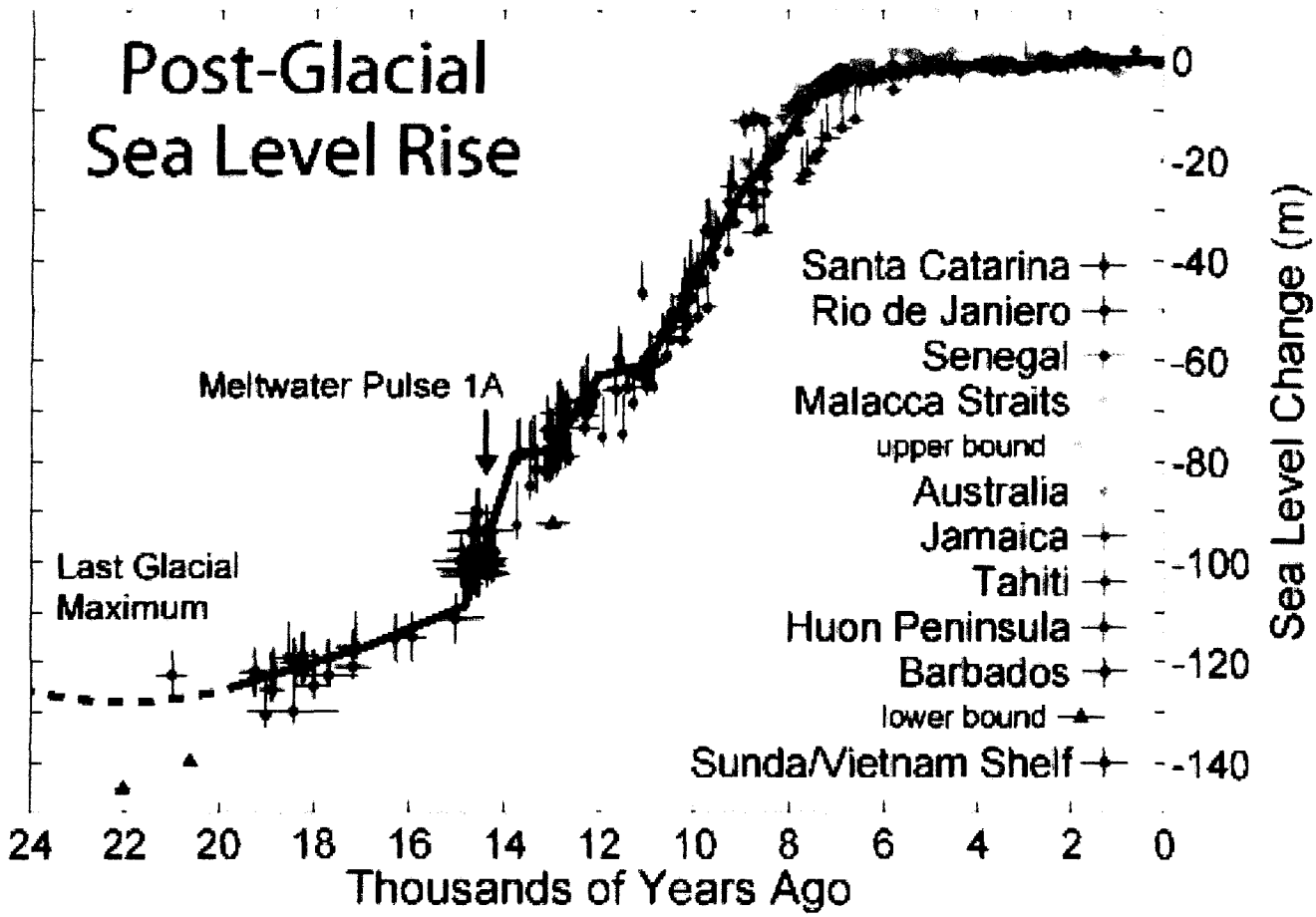
because the glaciers are melting and the polar sea ice fields are disappearing.

GLACIERS - on land, kilometres in depth,
- 90% of glacier ice is on Antarctica
- 4% of glacier ice is on Greenland
- 1% of glacier ice is on Iceland & Ellesmere Island

ALL THESE GLACIERS ARE ADVANCING, NOT RECEDING!

The remaining 5% of the world's glacier ice is on the Rockies, Andes, Alps and central Asian chains (Himalayas, etc.) Some are static, some are receding, some are advancing.

SEA ICE - on water, metres in depth,
- seasonal and phasal advancing and receding,
- regained 1970's level in the arctic,
- doubled in extent in the Antarctic.


Post-Glacial
Sea Level Rise
Meltwater Pulse 1A
Last Glacial
Maximum
Santa Catarina
Rio de Janiero
Senegal
Malacca Straits
upper bound
Australia
Jamaica
Tahiti
Huon Peninsula
Barbados
lower bound
Sunda/Vietnam Shelf
0
-20
-40
-60
-80
-100
-120
-140
Sea Level Change (m)
24
22
20
18
16
14
12
10
8
6
4
2
0
Thousands of Years Ago

Why then, if the evidence is so overwhelmingly against them, have the Catastrophists been able to braindirty a significant number of influential people into supporting their cause and their lies?

Because it's not about climate!

The Romans had a phrase: "Cui bono?" which means "Who benefits?" Today we also say "Follow the money!" Money is power, power earns money.

WHO ARE THESE WACCs?

Virtually all are in North America, western Europe and Australasia.

Russia, China, India, so-called "underdeveloped nations" = nyet!

* Greenpeace, Sierra Club, WWF and other enviro-radical groups.
* Liberal, New Democrat and Democrat Party politicians.
* Deskcrats everywhere.
* United Nations - Intergovernmental Panel on Climate Change. (IPCC)
* Handful of Swindlers.
* Education establishments.
* Almost all mainstream print & TV media, social media,
* Wikipedia.
* Hollywood.
* Personalities - Al Gore, David Suzuki, etc.

All LSD socialists

Aided and abetted by giant corporations keen on selling new light bulbs, cars, windmills, solar panels and whatever gimmick seems like a hot button.

The LSD's are financed by mega-rich people such as George Soros, Bill Gates, Maurice Strong, or by Billions of taxpayer dollars handed out by governments, or by profits, or by donations from gullible publics.

Thousands of them meet twice a year in exotic/expensive locations like Rio, Copenhagen, Cancun, Qatar, Durban and Paris.

AND THE GOAL IS

Global Cooling/Global Warming/Climate Change is nothing but a monstrous cover by limousine LiberalSocialist elites (George Soros's Davos Men) seeking to control the world by forcing prosperous western nations to wreck their economies by switching to "Green Power" and transferring what's left of their wealth to third world countries to (supposedly) help them do the same.

A lot of Catastrophists, including the Pope and Obama, met at the UN in New york City the weekend of September 25 -27, 2015 to finalize the detailed actions, indicated in Agenda 21, that needed to be done to establish a one-world, socialist dictatorship by 2030. Whenever you see or hear that date mentioned, alarm bells should go off in your head!

JUST A FEW COMMENTS

Former Canadian Maurice Strong moved to Beijing, the capital of Communist China. As Secretary-General of the 1992 Conference of Environment and Development in Rio, he stated: "Isn't the only hope for our planet that the industrialized nations collapse? Isn't it our responsibility to bring it about?" That conference led directly to the Kyoto Accord and Agenda 21.

Stephen Harper got it right in a 2002 fundraising letter when he was leader of Canadian Alliance. He wrote: " (It's) a socialist scheme to suck money out of wealth-producing nations."

In 2011, Otto Edenhoffer, co-chair of the IPCC's Working Group lll, declared that, "Basically, it's a big mistake to discuss climate policy separately from the major themes of globalization. The climate summit (Cancun) is not a climate conference, but one of the largest economic conferences since the second World War. .... one must say clearly that we redistribute .... the world's wealth by climate policy."

United Nations Framework Convention on Climate Change executive secretary, Christiana Figueres, recently admitted that climate change "is not about the temperature. That is just a proxy. The discussion is about the decarbonization of the economy."

At the previous UNFCCC meeting in 2012 at Doha, Qatar, Figueres let the cat out of the bag when she revealed that the goal of the whole process is a "complete transformation of the economic structure of the world." Earlier this year she said "this is probably the most difficult task we have given ourselves, which is to intentionally transform the economic development model, for the first time in human history."(See Obama's "Fundamentally transform America.")

MORE

Naomi Klein - radical socialist agitator - acknowledged that "progressive" policies on the environment are really about destroying market economies desired by marx and fellow communists.

Christine Stewart - former Liberal MP for Northumberland - when Minister of the Environment in Jean Chretien's government from 1997 to 1999, said; "No matter if the science is all phony .... Climate Change provides the greatest opportunity to bring about justice and equality in the world."

H.L. Mencken - noted U.S. journalist - wrote; "The whole aim of practical politics is to keep the populace alarmed (and hence clamorous to be led to safety) by menacing it with an endless series of hobgoblins, all of them imaginary." (see '1984')

He also wrote; "The urge to save humanity is almost always a false front for the urge to rule."

Obama contemplates silencing climate change deniers

Pittsburgh Tribune-Review (Greensburg, Pa.) March 23, 2016 at 11:50 am 19 Fresh Ink, Lead Stories

U.S. President Barack Obama attends the 10th East Asia Summit at the 27th ASEAN Summit in Kuala Lumpur, Malaysia, Sunday, Nov. 22, 2015. (AP Photo/Vincent Thian)

Frustrated in its court failures to dictate climate policy above and beyond Congress, the Obama administration is moving to silence climate change "deniers" possibly by suing them.

In response to a Senate Judiciary Committee member's concern over a widespread "climate denier apparatus" that's gumming up the scientific "consensus," Attorney General Loretta Lynch said she has asked the FBI to evaluate whether this concern "meets the criteria for which we can take action." In other words, the administration would silence the scoffers — many, very reputable scientists — by suing them.

And the free-speech rights of independent scientists who challenge the assumptions of man-made climate change? Conceivably the administration would liken deniers to the tobacco industry in a RICO case, writes Todd Young of the Southeastern Legal Foundation. In that case, an appeals court ruled the First Amendment does not protect deceptive statements when "Defendants knew of their falsity at the time and made the statement with the intent to deceive."

Of course, this puts the burden on the Justice Department to show that years of scientific evidence contradicting the so-called scientific consensus is duplicitous.

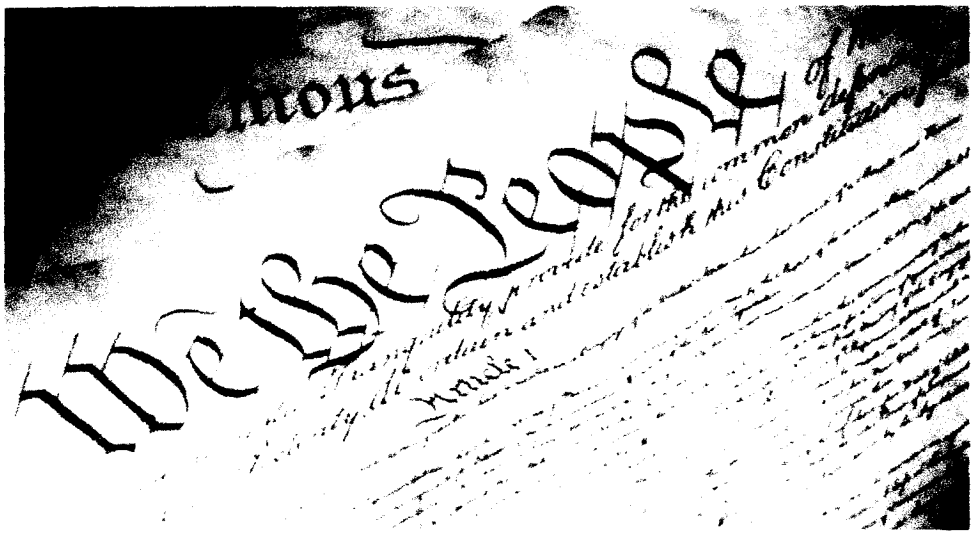
"Believing in the power of reason as applied through public discussion, (the Founders) eschewed silence coerced by law — the argument of force in its worst form," wrote Supreme Court Justice Louis Brandeis. Or put another way, hot air is not above rebuttal.

—

(c)2016 The Pittsburgh Tribune-Review (Greensburg, Pa.)

Climate affront: Stifling speech

Pittsburgh Tribune-Review (Greensburg, Pa.) April 5, 2016 at 11:30 am 7 News



On the latest front to silence the skeptics of "settled" climate change, attorneys general from at least 17 states (sans Pennsylvania) have announced a "unified campaign" to shut up those companies that challenge the accepted "narrative."

AGs United for Clean Power, primarily Democrats, will investigate whether certain companies are advancing climate "fraud" to maximize profits, New York Attorney General Eric Schneiderman said. California and New York already have opened investigations into whether ExxonMobil deceived the public about man-made emissions. ExxonMobil called the allegation "preposterous."

And how curious, too, that the AGs' campaign follows the lawsuit filed by 25 states against the Environmental Protection Agency's Clean Power Plan. And it comes on the heels of testimony by U.S. Attorney General Loretta Lynch, who told senators that the Department of Justice is exploring whether to pursue civil action against climate change deniers.

The **Oregon Petition** was the third and by far the largest petition circulated in the scientific community challenging the Global Warming Swindlers. It was conducted in two stages – 1998 to 2001 and 2007 to 2008. It was signed by over 31,400 real scientists in fields having a connection to climate. The opening paragraph of the Petition reads as follows: "We urge the United States government to reject the global warming agreement that was written in Kyoto, Japan in December, 1997, and any other similar proposals. The proposed limits on greenhouse gases would harm the environment, hinder the advance of science and technology and damage the health and welfare of mankind."

The petition was backed up by a 12-page synopsis of 132 published and peer-reviewed studies conducted by real scientists using sophisticated instruments and disciplined techniques to measure real world phenomena as opposed to the computer-modelled speculations of the warmists.

The conclusion of the synopsis reads as follows: "There are no experimental data to support the hypothesis that increases in human hydrocarbon use or in atmospheric carbon dioxide and other greenhouse gases are causing or can be expected to cause unfavourable changes in global temperatures, weather, or landscape. There is no reason to limit human production of CO2, CH4, and other minor greenhouse gases as has been proposed."

"We also need not worry about environmental calamities even if the current natural warming trend continues. The earth has been much warmer during the past 3000 years without catastrophic effects. Warmer weather extends growing seasons and generally improves the habitability of colder regions."

"As coal, oil and natural gas are used to feed and lift from poverty vast numbers of people across the globe, more CO2 will be released into the atmosphere. This will help to maintain and improve the health, longevity, prosperity and productivity of all people."

"The United States and other countries need to produce more energy, not less. The most practical, economical and environmentally sound methods available are hydrocarbon and nuclear technologies."

"Human use of coal, oil and natural gas has not harmfully warmed the earth, and the extrapolation of current trends shows that it will not do so in the foreseeable future. The CO2 produced does, however, accelerate the growth rates of plants and also permits plants to grow in drier regions. Animal life, which depends upon plants, also flourishes, and the diversity of plant and animal life is increased."

"Human activities are producing part of the rise in CO2 in the atmosphere. Mankind is moving the carbon in coal, oil and natural gas from below ground to the atmosphere, where it is available for conversion into living things. We are living in an increasingly lush environment of plants and animals as a result of this CO2 increase. Our children will therefore enjoy an earth with far more plant and animal life than that with which we now are blessed."

The synopsis was compiled by Arthur B. Robinson, Noah E. Robinson and Willie Soon of the Oregon Institute of Science and Medicine. Frederick Seitz , who endorsed the content and purpose of the Oregon Petition, was among the most highly respected and honoured scientists of the 20th century. He was Past President of the U.S. National Academy of Sciences 1962-1969, President Emeritus of Rockefeller University, founder of several research labs in the U.S., and the recipient of many honours including 32 honorary degrees from universities in the U.S. and other countries.

The petition, its signers and their backgrounds, and the synopsis of studies can be found at www.petitionproject.org

A partial list of predictions and comments over 117 years

Source: Press Release, "Earth Day 2008: Predictions of Environmental Disaster Were Wrong," Washington Policy Center, April 22, 2008.

http://www.washingtonpolicy.org/pressroom/pressreleases/4_22_2008.html

"Is our climate changing? The succession of temperate summers and open winters through several years, culminating last winter in the almost total failure of the ice crop throughout the valley of the Hudson, makes the question pertinent. The older inhabitants tell us that the winters are not as cold now as when they were young, and we have all observed a marked diminution of the average cold even in this last decade. - New York Times, June 23, 1890

"The Oceanographic observations have, however, been even more interesting. Ice conditions were exceptional. In fact, so little ice has never been noted. The expedition all but established a record." - Journal of the Royal Meteorological Society, January 1905

[Note: Amundsen was the first to successfully navigate the entire northwest passage - from east to west in 1903 - 06. CWC]

****

"Fifth ice age is on the way.....Human race will have to fight for its existence against cold." – Los Angles Times, October 23, 1912

****

"The Arctic ocean is warming up, icebergs are growing scarcer and in some places the seals are finding the water too hot.... Reports from fishermen, seal hunters and explorers, he declared, all point to a radical change in climate conditions and hitherto unheard-of temperatures in the Arctic zone... Great masses of ice have been replaced by moraines of earth and stones, the report continued, while at many points well known glaciers have entirely disappeared. Very few seals and no white fish are found in the eastern Arctic, while vast shoals of herring and smelts, which have never before ventured so far north, are being encountered in the old seal fishing grounds." - Washington Post, 11/2/1922

****

"Scientist says Arctic ice will wipe out Canada, Professor Gregory of Yale University stated that 'another world ice-epoch is due.' He was the American representative to the Pan-Pacific Science Congress and warned that North America would disappear as far south as the Great Lakes, and huge parts of Asia and Europe would be 'wiped out'." – Chicago Tribune, August 9, 1923

"In the next 50 years fine dust that humans discharge into the atmosphere by burning fossil fuel will screen out so much of the sun's rays that the Earth's average temperature could fall by six degrees. Sustained emissions over five to 10 years, could be sufficient to trigger an ice age." – Washington Post, July 9, 1971

"There is very important climatic change (Global Cooling) going on right now, and it's not merely something of academic interest. It is something that, if it continues, will affect the whole human occupation of the earth – like a billion people starving. The effects are already showing up in a rather drastic way." – Fortune Magazine February 1974

""This cooling has already killed hundreds of thousands of people. If it continues and no strong action is taken, it will cause world famine, world chaos and world war, and this could all come about before the year 2000. — Lowell Ponte "The Cooling", 1976

"Evidence has been presented and discussed to show a cooling trend over the Northern Hemisphere since around 1950, amounting to over 0.5°C, due primarily to cooling at mid- and high latitudes." - Bulletin of the American Meteorological Society, November 1980

****

"A global warming trend could bring heat waves, dust-dry farmland and disease, the experts said... Under this scenario, the resort town of Ocean City, Md., will lose 39 feet of shoreline by 2000 and a total of 85 feet within the next 25 years."- San Jose Mercury News, June 11, 1986

"New York will probably be like Florida 15 years from now." - St. Louis Post-Dispatch, Sept. 17, 1989

"The planet could face an 'ecological and agricultural catastrophe' by the next decade if global warming trends continue." - Carl Sagan, Buffalo News, Oct. 15, 1990

'Most of the great environmental struggles will be either won or lost in the 1990s and by the next century it will be too late." — Thomas E. Lovejoy, Smithsonian Institution 'Real Goods Alternative Energy Sourcebook', Seventh Edition, February 1993

"Today (in 1996) 25 million environmental refugees roam the globe, more than those pushed out for political, economic, or religious reasons. By 2010, this number will grow tenfold to 200 million." – 'The Heat is On -The High Stakes Battle Over Earth's Threatened Climate' - Ross Gelbspan, 1996

"In ten years time, most of the low-lying atolls surrounding Tuvalu's nine islands in the South Pacific Ocean will be submerged under water as global warming rises sea levels." CNN, Mar 29, 2001

"NOAA announced its predictions for the 2006 hurricane season, saying it expects an "above normal" year with 13-16 named storms. Of these storms, the agency says it expects four to be hurricanes of category 3 or above, double the yearly average of prior seasons in recorded history. With experts calling the coming hurricane season potentially worse than last year's, oil prices have jumped 70 cents per barrel in New York and made similar leaps elsewhere. Economists anticipate that demand for oil will rise sharply over the summer, when as many as four major hurricanes could hit the United States."— Seed Magazine, 5/19/06 [Hurricanes making U.S. landfall = 0. CWC]

"This year (2007) is likely to be the warmest year on record globally, beating the current record set in 1998." - Science Daily, Jan. 5, 2007. [It wasn't! CWC]

The global average temperature stopped increasing in 1998 and began cooling again in 2002. By 2011, the average had dropped by 0.12 degrees Celsius.

Serious digging has unearthed the fact that only 42 people, some of whom didn't even have climate or geographic backgrounds, were the "scientists" and "peer reviewers" of the computer model predictions upon which the entire hoax and the IPCC reports were based. The sordid details of the Swindle were finally confirmed by the exposure of over 2000 e-mails in the "Climategate" scandal, November 20, 2009.

Phil Jones, was the then head of the Climate Research Unit at East Anglia University, where global average temperature records are assembled and recorded. He was the focal point of the Climategate e-mails.When interviewed about the implications of the Climategate revelations he admitted the truth that the global average temperature had been cooling at the rate of 0.12 degrees Celsius since 2002, and that the Climategate e-mailers were in turmoil because that was the complete reverse of the dire predictions they'd been hurling at the world since the '80's.

James Lovelock, British "Hero of the Environment", coined the Gaia/mother earth/living earth concepts. He made headlines in the '90's when he announced, "Global Warming will end the world as we know it". He proclaimed that. "Billions of us will die and the few surviving breeding pairs of people that survive will be in the Arctic where the climate remains tolerable." He thought we would be "halfway to frying by now". (2012) In late April, 2012, he recanted in a BBC interview, admitted he'd been alarmist and that warmists didn't know what was happening.

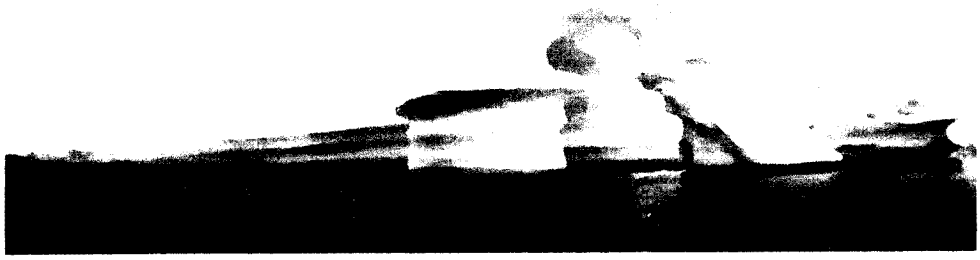
Yet the Swindlers are still promoting their lies, the media are still peddling them and governments are still squandering Billions of out tax dollars trying to counter a non-event.

CWC. March 2013

OPINION

FP COMMENT

Lawrence Solomon: Finally it's safe for the whistleblowers of corrupted climate science to speak out



Whistleblowers at the U.S. government's official keeper of the global warming stats, the National Oceanic and Atmospheric Administration (NOAA), claim their agency doctored temperature data to hide the fact that global temperatures plateaued almost 20 years ago.

Can the whistleblowers be believed in this claim, originally made in 2015? And in the further claim that NOAA then rushed this doctored data into print in time for the UN's Paris global warming summit of world leaders, to dupe any doubters that the planet was in fact overheated?

Of course the whistleblowers can be believed, and not just because NOAA repeatedly stonewalled inquiries, even failing to comply with a congressional subpoena. No one paying attention can have any doubt that the governmental global warming enterprise has been a fraud. It's been lies from the start, starting with the very mandate of the UN's Intergovernmental Panel on Climate Change, which astonishingly ruled out factors like the sun as being worthy of investigation.

Among those astonished was the Danish delegation to the IPCC. It discovered at one of the IPCC's early meetings a quarter-century ago that its scientists could not present their study, newly published in the prestigious journal Science, showing a remarkable

correlation between global warming and solar activity. To their further astonishment, to squelch dissent the IPCC cabal set out to destroy the reputation of its chief author, falsely accusing him of fabricating data.

Whistleblowers now know they will no longer be silenced.

Dissenters from the climate change orthodoxy soon learned that, if they refused to recant, they stood to lose their jobs, their funding, and their reputations. They also learned the corollary: to get hired, to get funded, to get promoted, they needed to produce the science the authorities wanted. Governments annually spent billions of dollars on climate change research, virtually all of it commissioned to prove that the science was settled — that man-made climate change represented an existential threat to the planet.

None of the billions spent on research amounted to anything — none of the models proved reliable, none of the predictions were borne out, none of the expected effects materialized. The Arctic ice cap hasn't disappeared, polar bear populations haven't declined, hurricanes haven't become more common, malaria hasn't spread, temperatures haven't continued to climb. What did materialize was fraud after fraud.

Climategate — the 2009 revelations of hacked emails showing scientists labouring to manipulate data and cover their tracks — was followed by Climategate 2.0 (a second damning batch of hacked emails), by Amazongate (the revelation that the IPCC's claim of coming devastation in the Amazon was based on non-peer-reviewed research by WWF eco-activists), Glaciergate (here the IPCC relied on speculation in a popular magazine) and other scandals.

The mega-fraud was the assertion that the science was settled, which the IPCC trumpeted with claims that 2,500 scientists from around the world endorsed its findings. Except those 2,500 — a number that was soon inflated to 3,000 and then 4,000 — didn't endorse anything. They merely reviewed some of the studies heaved into the IPCC's maw, many of them giving the research the thumbs down.

Likewise, a much heralded claim that 97 per cent of scientists believed the planet was overheating came from a 2008 master's thesis by a student at the University of Illinois who obtained her results by conducting a survey of 10,257 earth scientists, then discarding the views of all but 77 of them. Of those 77 scientists, 75 thought humans contributed to climate change. The ratio 75/77 produced the 97-per-cent figure that global warming activists then touted.

In fact, major surveys show that scientists in the tens of thousands do not believe that global warming represents a threat. With the departure of president Obama and his administration, which had blocked independent investigations from being pursued, whistleblowers in greater numbers will now dare to come forward, knowing they will no longer be silenced.

One of them is Dr. John Bates, a recently retired principal scientist at NOAA, who described how his agency manipulated data to manufacture a non-existent increase in global temperatures. In a press release last week, U.S. House Science, Space, and Technology Committee chairman Lamar Smith thanked "Dr. John Bates for courageously stepping forward to tell the truth about NOAA's senior officials playing fast and loose with the data in order to meet a politically predetermined conclusion." This week a second press release from the same committee indicated that NOAA will be brought to account.

The blizzard of lies from NOAA and other corrupted agencies will soon be outed in excruciating detail. The greatest scientific fraud of the century will thus be laid bare, along with its craven and corrupt enablers in government, academia, industry and the media.

Lawrence Solomon is executive director of Energy Probe, a Toronto-based environmental group.

THEY MUST BE STOPPED

Thousands of attendees enjoyed the taxpayer-funded luxuries of a two-week stay in Paris and produced an agreement signifying absolutely nothing. The "agreement" has no binding targets, just a bunch of "wouldn't-it-be-nice-if" pledges. Therefore, there are no enforcement or funding mechanisms. The Chinese and Indians, among many others, basically told the conference to get stuffed and went home to continue building their coal-fired generating plants. But North American and western European "leaders" continue to spout folly!

by Charles Conn

"Climate Change catastrophism is the biggest scientific fraud that has ever occurred." (*Ian Plimer, emeritus professor of Earth Sciences at the University of Melbourne, professor of Mining Geology at the University of Adelaide and author of "Not For Greens" (2014).*)

"Future generations will wonder in bemused amazement that the early twenty-first century's developed world went into hysterical panic over a globally averaged temperature increase of a few tenths of a degree, and, on the basis of gross exaggerations of highly uncertain computer projections combined into implausible chains of inference, proceeded to contemplate a roll-back of the industrial age."

(Dr. Richard S. Lindzen, Alfred P. Sloan Professor of Atmospheric Sciences, MIT; member of the National Academy of Sciences; and former lead author, UN Intergovernmental Panel on Climate Change.)

The Catastrophists base their positions on computer projections, not real, scientific, field research. The 2,000 e-mails of the 2009 Climategate scandal exposed 42 of them. When 104 of their models were tested using historic data to predict current realities, 102 of their forecasts proved to be totally wrong, some ridiculously so. Yet these models are used by the Catastrophists as the basis for the catastrophic outcomes they predict!

The so-called "consensus" of 95% was based on 87 self-identified Catastrophists.

Meanwhile, in the real world of field investigation of climate history in glacier, ocean and lake bed cores, plus geological surveys, plus temperature measurements on land and sea and in the atmosphere, thousands of scientists using all the tools and techniques available today have confirmed in more than 545 studies that there is absolutely no evidence for catastrophic global warming, and, that humanity's burning of fossil fuels contributes a miniscule less than 1/4 of 1% to the Greenhouse Effect! Many petitions from groups of scientists, including one from over 31,400 scientists, have reported the truth for nearly 20 years.

The science IS settled - by real scientists researching real world conditions - not by a handful of computer pickers projecting outcomes from a limited list of short term data.

Why then, if the evidence is so overwhelmingly against them, have the Catastrophists been able to braindirty a significant number of influential people into supporting their cause and their lies? Because it's not about climate!

The Romans had a phrase: "Qui bono?" which means "Who benefits?" Today we also say "Follow the money!" Money is power, power earns money.

In the 1960's and '70's, they screamed we were all going to die because burning fossil fuels was going to bring on an Ice Age.

In the 1980' and '90's, they claimed we were all going to die because burning fossil fuels was going to bring on "Global Warming" and make the earth too hot for life. When the warming stopped and cooling began they switched to "Climate Change".

In the year or so leading up to the Paris Conference on Climate Change in December 2015, there was a tremendous increase in the flood of dire predictions by desperate Climate Change Catastrophists. We were told that we were all going to die from flooding or drought or storm or heat or starvation unless we stopped burning fossil fuels and putting carbon dioxide in the atmosphere. (Thereby wrecking the developed, industrialized economies of western civilization and denying the right of underdeveloped nations to catch up.) They said that Climate Change was the worst peril the planet faced - worse than terrorism or financial crises or wars or invasions or plagues, or poverty, or anything!

They lied. None of their predictions have come true!

But, incredibly, they've been able to capitalize on the agendas and/or egos of the business, media, entertainment, academic, bureaucratic and religious elites who have pressured weak-minded politicians in western governments into making a multitude of economy-wrecking decisions.

We certainly should immediately stop the folly that is wrecking our western civilizations' economies. Multi-billions of our dollars have been diverted from useful infrastructure repair and construction, and from needful pollution control projects to finance the foolish pursuit of climate control. The list of waste on "research", windmill and solar panel farms, fabulous conventions in exotic locales, media PR, government subsidies, movies, etc., is endless.

Who are these people? They are as motley a collection of unlike characters as ever assembled in history. They are united by two basic characteristics - a sociopathic hatred of the personal freedom and prosperity of the vast majority of humanity, (they exclude themselves from this condemnation of course.), and they are all "Leftists".

The Catastrophists base their positions on computer projections, not real, scientific, field research. The 2,000 e-mails of the 2009 Climategate scandal exposed 42 of them.

Canadian multi-millionaire Maurice Strong moved to Beijing, the capital of Communist China. As Secretary-General of the 1992 Conference of Environment and Development, he stated: "Isn't the only hope for our planet that the industrialized nations collapse? Isn't it our responsibility to bring it about?" That conference led to the Kyoto Accord and Agenda 21.

United Nations Framework Convention on Climate Change executive secretary Christiana Figueres recently admitted that climate change "is not about the temperature. That is just a proxy. The discussion is about the decarbonization of the economy."

At the previous UNFCCC meeting in 2012 at Doha, Qatar, Figueres let the cat out of the bag when she revealed that the goal of the whole process is a "complete transformation of the economic structure of the world". Earlier this year she said "this is probably the most difficult task we have given ourselves, which is to intentionally transform the economic development model, for the first time in human history". (See Obama's "Fundamentally transform America")

Global Cooling/Global Warming/ Climate Change is nothing but a monstrous cover by Liberal Social Democrat socialist elites (LSD's - Lenin's "useful idiots") seeking to control the world by forcing prosperous western nations to wreck their economies by switching to "Green Power" and transferring huge amounts of their people's money to third world countries to (supposedly) help them do the same.

This "Green Fund" was being negotiated to be between $100 Billion and $400 Billion per year! Fortunately, the UNFCCC conference in Paris crashed, partly because they couldn't agree on the amount and not enough attendees were willing to pay this obscene extortion no matter how much it would have been. However, Jr. Trudeau promised to pay $2.5 Billion of Canadian taxpayers' money into the Fund his third week in office, before the conference, and his fellow-travelling buddy Obama sounds like he wants to do something by ignoring Congress - again.

The Comintern failed in its mission to establish a one-world, socialist dictatorship headquartered in Moscow when the Union of Soviet Socialist Republics crashed. The United Nations, using Catastrophic Climate Change as the lever, has assumed that role.

A lot of Catastrophists, including the Pope and Obama, met at the UN in New York City the weekend of September 25 -27, 2015 to finalize the detailed actions, indicated in Agenda 21, that needed to be done to establish a one-world, socialist dictatorship by 2030. Whenever you see or hear that date mentioned, alarm bells should go off in your head!

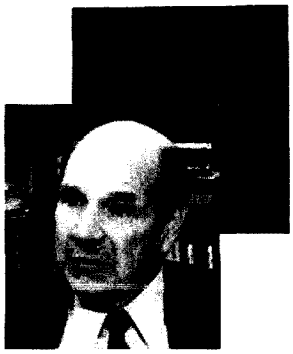
They must be stopped.

Charles W. Conn,
Hastings, ON,
cwc@ceconn.com

The Trump Transition on Climate Change

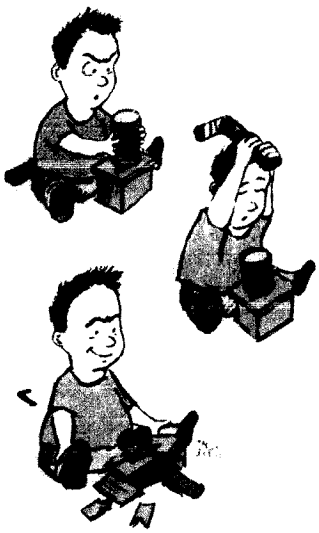
"Truth never dies but lives a wretched life."

Yiddish proverb



by Dr. Tim Ball

I fight for the truth about the claim that humans are causing global warming (AGW) because I don't want any politician to be able to say they were never told. It is without question the greatest deception in history. I wrote two books about it, the most recent, *Human Caused Global Warming,* providing answers to the traditional investigative journalism questions, *Why, What, Where, When and How.* My positions brought attacks including three lawsuits, because as Voltaire said,



"It is dangerous to disagree in matters where people in authority are wrong."

I represented two problems to those perpetuating AGW through ignorance or as a deliberate political agenda. First, they could not say I wasn't qualified. In addition, I began a campaign of pointing out the lack of qualifications of so many pushing the agenda – Al Gore is a good example. Second I dared to speak out in ways the public understood. I honed a God-given ability to teach and explain complex issues by teaching a Science credit course for Arts students. Also, I wrote hundreds of articles in every medium possible, published books, did countless radio and TV interviews, and gave hundreds of public lectures. I helped form two major groups that presented material on the science in ways the public could understand.

What happened in both cases was individual professionals who understood the science associated with global warming began to look at the 'official' Reports of the Intergovernmental Panel on Climate Change (IPCC). They could not believe what they were reading. Their experience mirrored those of more prominent people such as Emeritus Professor of physics, the late Hal Lewis. He was angered by the support of IPCC without question by the leadership of the American Physical Society (APS). In his October 2010 letter of resignation;

"the global warming scam, with the (literally) trillions of dollars driving it, that has corrupted so many scientists, and has carried APS before it like a rogue wave. It is the greatest and most successful pseudoscientific fraud I have seen in my long life as a physicist."

German meteorologist and physicist Klaus-Eckart Puls explained his experience.

"Ten years ago I simply parroted what the IPCC told us. One day I started checking the facts and data – first I started with a sense of doubt but then I became outraged when I discovered that much of what the IPCC and the media were telling us was sheer nonsense and was not even supported by any scientific facts and measurements. To this day I still feel shame that as a scientist I made presentations of their science without first checking it."

I was contacted by Albert Jacobs, a Calgary-based Hydrogeologist. I met with him and a small group at Calgary airport and confirmed their suspicions about the science. They were worried that the proposed Kyoto Protocol was based on very bad science. The problem was that they were in Alberta and some had worked in the oil patch. I told them that the science was corrupted to achieve a political agenda. I suggested that they would never out politic the politicians, so their most effective strategy was to stick to the science. They did that and continued to do it very effectively through The Friends of Science.

The second event began about eight years ago with the election of Barack Obama and his focus on global warming. Australian citizen Malcolm Roberts, a retired engineer and businessman contacted me with concerns after reading the IPCC Reports. I worked with Malcolm to establish a group called the Galileo Movement. Malcolm learned that the AGW deception was effective and essentially unchallenged because it was in the orchestrated control of the bureaucrats.

The AGW claim was disseminated as the truth through the bureaucrats of national weather offices as members of the UN World Meteorological Organization (WMO). That organization assigned the members of the UN Intergovernmental Panel on Climate Change (IPCC), which then produced the 'science' to support the claim. Control was further restricted within the IPCC as Richard Lindzen, MIT Emeritus Professor of Atmospheric Physics explained.

IPCC's emphasis, however, isn't on getting qualified scientists, but on getting representatives from over 100 countries. The truth is only a handful of countries do quality climate research. Most of the so-called experts served merely to pad the numbers.

Most of the researchers who controlled the IPCC were associated with the Climatic Research Unit (CRU) at the University of East Anglia (UEA). In November 2009, a month before a momentous political decision was due on the Kyoto Protocol from the Conference of the Parties (COP 15), 1000 emails were leaked that exposed the corruption of climate science by this handful of people. On the back cover of their book *Climategate: The Crutape Letters* Mosher and Fuller summarized;

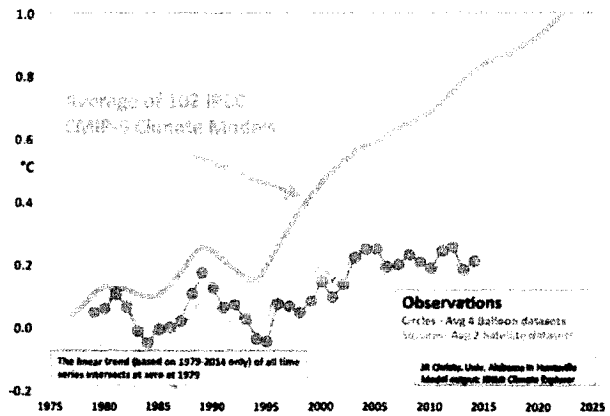
The Team, led by Phil Jones and Michael Mann, in attempts to shape the debate and influence public policy:

- *Actively worked to evade (Steve) Mcintyre's Freedom of information requests, deleting emails, documents and even climate data*
- *Tried to corrupt the peer-review principles that are the mainstay of modern science, reviewing each other's' work, sabotaging efforts of opponents trying to publish their own work, and threatening editors of journals who didn't bow to their demands*
- *Changed the shape of their own data in materials shown to politicians charged with changing the shape of our world, 'hiding the decline' that showed their data could not be trusted.*

The deliberately corrupted IPCC science was pushed by every national weather office including Environment Canada. It was a false story and people like me who dared to point out the problems were attacked and vilified. The claims they made were given unjustified credibility as the product of computer models. As said, Pierre Gallois wrote

If you put tomfoolery into a computer, nothing comes out but tomfoolery. But this tomfoolery, having passed through a very expensive machine, is somehow ennobled and no-one dares criticize it.

The computer results are not evidence of AGW. They are the output of models programmed to predetermine a result. Figure 1 shows that every IPCC prediction since 1990 has been wrong. If your prediction is wrong, your science is wrong.



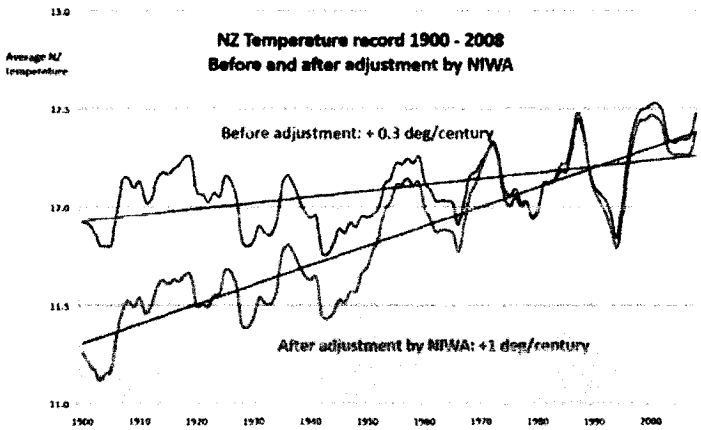
CAPTION: Five-year running mean temperatures predicted by the UN's climate models, and observed lower atmospheric temperatures from weather balloons and satellites

Figure 1

Despite that, Environment Canada and others continued to push the dangers of CO2 and the need to reduce them by eliminating fossil fuels. "There are two major problems the AGW proponents exploited; the public can't challenge the bureaucrats, and the politicians don't understand the science and are easily deflected."

Tim Malcolm Roberts ran successfully as a Senator for the State of Queensland under a new Australian Party banner – One Nation. He was successful, and his maiden speech started the search for empirical evidence. It is, to my knowledge, the first open challenge to the bureaucrats who control the global warming agenda and effectively dictate policy to the politicians. Roberts challenged the Commonwealth Scientific and Industrial Research Organization (CSIRO) to produce empirical evidence for global warming. Actual data with accompanying evidence of the cause and effect, not computer model generations. They responded with a Report that provided no empirical evidence, just repetition of information from the Australian Bureau of Meteorology (ABOM), who simply parroted the IPCC.

I was invited to visit Australia by Senator Roberts and participated in a public presentation with Tony Heller. Tony showed how NASA GISS and other government weather agencies altered the historic record to accentuate the warming. Figure 2 shows the changes for New Zealand. You should also watch Tony Heller's detailed explanation of the entire temperature data manipulation. I followed his presentation by asking the question, "Why would scientists

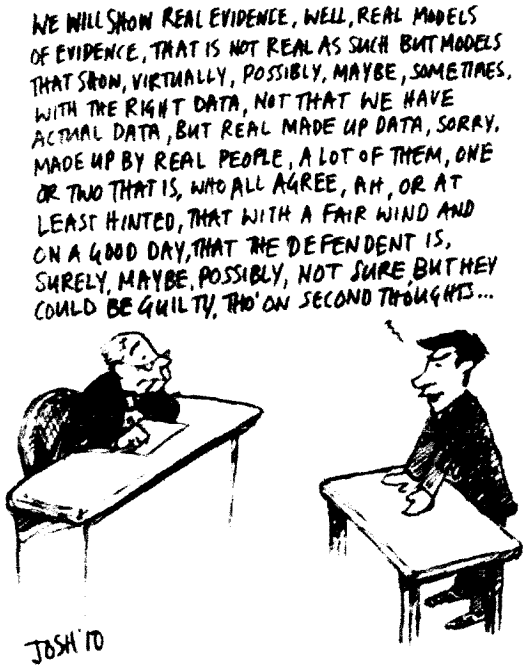


alter the record in such a way?" and providing a detailed explanation of and why they did it.

People find it hard to believe that a small group of people could deceive the world, but as social anthropologist Margaret Mead noted,

"Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has."

They also find it hard to believe that scientists would be involved in such activity. Unfortunately, as the leaked emails showed, many did. The reasons were numerous



COURTING DISASTER

(THE CASE FOR AGW)

including an agreement with the political objective, access to funding, career advancement, high public profile, and often a combination of these. Some of these applied to bureaucrats but for the most part, they were blindly following political and departmental directives. This underscores the problem with having bureaucratic scientists – their scientific integrity is automatically compromised.

While in Australia, the second event occurred that indicates that the deception on global warming is doomed. Donald Trump was elected. This created an invitation for the three of us to appear before significant people on Capitol Hill and a group called "Cooler Heads" at the Competitive Enterprise Institute (CEI). This was arranged by Myron Ebell of the CEI who was appointed by President-Elect Trump to oversee the activities of the EPA and climate change and recommend policy and administrative changes.

Senator Roberts, Tony Heller, and I, made presentations on Capitol Hill, like those we gave in Australia. A question and answer session followed with an audience that included members of the Senate, Congress, their aides, and the public.

A separate three-hour session followed at CEI chaired by Myron Ebell and included several members of the Trump transition advisory team on the EPA and climate. Trump has publically stated that he does not want to eliminate the EPA. He said, on many occasions, we need clean air and water. The issues and concerns are the overreaches, over-regulations, and political nature of many of their actions.

Obama bypassed Congress and the checks and balances by working through the bureaucracies. Among the most egregious examples of this were in the control of CO_2 as part of his ongoing global warming agenda. He used the EPA to carry out his attack on fossil fuels, especially coal.

A major discussion involved US withdrawal from the Paris Climate Conference Agreement. Lawyers explained it was possible after a period of time but there was general support for the fact that there is nothing to prevent the US walking away. President Obama's devious actions to bypass Congress forced him to make it an Agreement, not a Treaty. He knew Kyoto failed to get Senate approval and the Paris Agreement called the Green Climate Fund, was a similar wealth transfer replacement.

Obama, through John Kerry, also made the Agreement non-binding because many nations wanted to appear green but didn't want to have to implement. It is the type of politician's duplicitous actions that are drawing the voting publics ire. There is little doubt the Trump administration will walk away because they are paying most of the cost of the UN climate program and even if they cut back major industrialized competitors like China, Germany and India continue to build coal-burning plants.

The Paris Agreement requires developed nations contribute $100 billion a year to the GCF. Canada has already paid $2.95 billion. It will do absolutely nothing to stop global warming, even if it was a real problem. Now, in Trump, we have a world leader putting his country first on the climate issue by recognizing the false science on which it is based. It is a pleasure for me, after all these years, to be involved in bringing sanity, reason, and science to policymaking on climate and other issues.

**

SOME SELECTED INTERNET REFERENCES (PLUS SIDEBARS)

On Google: "the great global warming swindle movie"

http://bit.ly/1mTifqG

http://www.thegwpf.org/patrick-moore-should-we-celebrate-carbon-dioxide/

http://www.petitionproject.org

http://www.youtube.com/watch?v=5NinRn5faU4

http://www.youtube.com/watch?v=USZ6vRY_kWI&spfreload=5

TWO BOOK REFERENCES

"CLIMATE CHANGE - THE FACTS". Edited by Alan Moran. First published by the Institute of Public Affairs, Melbourne, Australia. Published 2015 by Stockade Books, Box 30, Woodsville, NH, 03785, USA.

"THE POLITICALLY INCORRECT GUIDE TO GLOBAL WARMING AND ENVIRONMENTALISM". By Christopher C. Horner, Published 2007 by Regenery Publishing Inc., One Massachusetts Ave. NW, Washington, DC, 20001, USA.

Charles Conn
905-212-9111
Email: cwc@ceconn.com

March 8, 2017

Director Pruitt,

I've sent the enclosed memo and associated material to the men at Alliance of Automobile Manufacturers and thought it might be of some interest to you or your staff.

Best Wishes,

Bob Riley

March 7, 2017

Memo:

Mitch Bainwol CEO & Pres., Alliance Automotive Manufacturers (w/book & enc.)

CC:

David Schwietert Executive Vice President, AAM (w/book & enc.)

Gentlemen,

I'm gratified that an organization of your stature finally appears to have the ear of the policy makers in Washington.

Personally, I'd spent 50 years in the industry, much of it struggling to have my company conform to the peculiar edicts and specifications emanating from the (zealot?) administrators in DC, activity that eventually led to the demise of the domestic industry and the decimation of my hometown, Detroit.

In retirement ('08) and while attending a seminar at Princeton, the economics dean and former vice-chair of the Fed, grabbed the mike and announced, "...while driving here I learned that G. M. stopped trading. I never thought I would hear that in my lifetime." (His voice rises in frustration) "**Who can tell me what the hell happened!"**

Two thoughts immediately occurred to me:

1. Professor Blinder, I'm disappointed that you and your ilk hadn't detected and anticipated the effects of the "water torture" inflicted on the domestic auto industry over the past 40 years.

2. I can *tell* you, in excruciating detail, "What the hell happened!".

   (One tends to "pay attention" to details when availability of five kid's college funds and, for that matter, one's general lifestyle seem to be at risk.)

After considerable distillation of such "details", but carefully leaving in the excruciating parts, you're holding, in your other hand, my response to Dr. Blinder.

Rather than describe the book in this memo, I've inserted an outline of it, my "chalk talk" for book presentations and a literary critique of how it "reads".

I can only imagine the gigantic task of adjusting the practical outlook of the current bureaucracies and their supporters, given their 50 years of entitlement.

Perhaps, though, a detailed review and revelations of heretofore obfuscated "unintended consequences" might create an appropriate upheaval resulting in a belated but justified clamor for overhaul and re-organization of national priorities regarding energy, safety and environmental policies regarding automotive transportation.

Please let me know how and where I might advance the "draining" process.

Bob Riley
(b) (6) d
6
(b) (6)
detroitautocircus.com (blog)
(b) (6) 9

P. S. update if you're interested: 1 mba, 1, teacher's masters, 1 bme, 1 ba, 1 dropout H. S. diploma -but perhaps the most successful (in restaurant biz). Whew! No residual student loans, resulting in a comfortable (but modest) retirement.

DETROIT.....WHY THE CIRCUS LEFT TOWN

Table of Contents

Introduction: The 2008 automotive nexus leads to this book.

Section I: Immersion in Detroit Culture – Post WWII

1. Sunny Detroit
2. Post WWII optimism
   - Economic expansion
   - Concern about "the bomb"
   - Curse of an exceptional long-term memory
3. Still prosperity
   - Educational luxuries
   - Aspirations to participate in car biz
4. Fun is over
   - Flint, Michigan campus (no quadrangle; foundry is substitute)
   - First postwar economic dip

Section II: Transition to Honest (?) Work

5. Still not much fun
   - Automotive product proliferation
   - The new tech center – 4,000 drafting tables
   - A sense of the hierarchy – little sustenance for the spirit
6. Frying pan
   - New job with original equipment parts supplier

- Learning the supplier business from shrewd bosses
- Perks, panics
- Big three profiles

7. New boss

- Those Deloreans are something else!
- Behavioral lectures
- Demonstrative (terror inducing) lessons
- Travel chaos (self-induced)

8. Disdain for conglomerates

- Earlier executive becomes corporate raider
- Proxy fight ensues – customers quietly hysterical
- Lear Siegler compromise
- Observations and eventual demise of impressive chairman

9. Do not spindle

- Computer as a new but useful (?) tool
- Panics induced thereby

Section III: Calm Leading to Storm

10. Ground zero

- Status of the industry at the unknown precipice
- Offshore competition, Nader, NHTSA, gas crunches loom

11. Management chores

- First promotion received – citizenry riots within 36 hours

- Government demonstrates obtuse logic, motivation
- Several serious personnel dilemmas
- First safety related panic

12. Economic expert

- ...Key member of leadership council

- Inflation looming
- Recommend wage freeze – sadly Nixon complies

13. Up and out

- First gasoline crunch – Washington leads the hysteria
- Bet career on aluminum – light weight – MPG – snake eyes!
- Feeler from Bendix – arduous interview process
- Bingo!

Section IV: The Big-Time

14. Bendix revealed

- Largest independent supplier – excellent market posture
- New chairman Blumenthal – not Motown oriented
- HFII slams down 'phone

15. Environmental queasiness

- New rules for content of emissions
- Bendix start-up for EFI (electronic fuel injection) – call poorhouse

- New air pump pumps – and also whistles

16. Campaigns I have known

- Even best companies occasionally out of spec.
- Two samples of Bendix/customer resolution

17. Into the Fire

- Bifurcated governmental braking specs. – chaos ensues
- Riley letter enhances chaos
- The new "analytical" managers – see 15b., above
- California "zero emission" auto rules – see 15b. above

18. Café absurdo

- New mileage rules published
- Effect on Detroit manufacturer – chaos – must rearrange company, products
- Effect on overseas " – must decide which available cars to ship

19. Who speaks Motown?

- Blumenthal becomes Carter Treasury Secretary after 20 denials
- Co. names Bill Agee new chairman – name ring a bell?
- Hires new "analytical" manager to manage automotive
- "Analytical" managers don't seem to be doing very well

- Agee recognizes error – replaces with competent automotive guy
- Chrysler about to implode again – Agee sends Mike to deliver gasoline

Section V: You Can't Go Home

20. Back To Motown

- Industry in another malaise – Riley moves to Corporate International
- Experiences with Japanese associates
- Agee publicly commends his protégé, Miss Mary Cunningham
- National press wonders if he meant "business" or other activity
- Carnage ensues

21. Give my regards

- Hysteria causes Ms. Cunningham to resign – relocate to New York
- Chairman decides we need NY office – coincidence?
- How justify? International Dept. should be in NY – Whoops!

22. Adrift In Manhattan

- New office in G. M. building, corner of Central Park
- Agee marries former protégé
- New Mrs. Agee takes leave from new job to advise Mr. Agee
- Mrs. Agee suggests Mr. Agee buy Martin Marietta Corp – he does

- Martin Marietta Board suggests Chairman buy Bendix – he does
- Both companies now bereft of cash – all went to stockholders – what next?
- Allied Corp. takes over Bendix – Bendix Int'l now oddball dept. in NYC
- Agee duped by People Magazine

23. jesty the Queen (Unusual travel experiences)

- Undecipherable Hong Kong sign
- New Zealand starts to rock
- Bangkok fleshpots generally avoided
- Taiwan and snake alley

24. The airbag

- 30 year story telescoped into this chapter
- "Miracle" product conceived in mid-sixties, shilled by plaintiff lawyers
- Eaton Corp. sets up division, G. M. introduces in Olds trial product line – bombs
- 20 years legal jockeying – "passive" rules implemented –solved without airbag
- They're compulsory by act of congress, negating governmental promises to not legislate specific hardware
- They're introduced across the board – they function – but their violence kills many – government cover-up

25. Rest of 20th Century

- Anecdotal litany of events encountered on unremitting downhill slide

Section VI: Alternatives

26. Alternative fuels

- A discussion of alternative fuels: criteria and cost/benefit description
    i. Petroleum
    ii. Agricultural Products
    iii. Electric/Battery
    iv. Wind, Solar
    v. Hydrogen

27. Alternative power plants

- A discussion of alternative power plants: criteria, performance and cost/benefit
    i. Internal Combustion
    ii. Diesel
    iii. Fuel Cells
    iv. Electric
    v. Hybrids

28. Let's talk hybrids

- 15 years compressed into one chapter
- 41 volt required for best efficiency – changeover too costly – stay with 12v.
- Nifty concept – here's how efficiencies are derived
- Selection for the future – no! No system cost savings. Perhaps no energy savings.

Section VII: Proposal for Sustainability

29. The American Picture

- Review America's accomplishments – big picture advances, rail, electric, auto, production line, telephone, interstate system
- Improved communication enables titillating distractions for future e. g. McOldoil, windmills, whipgrass
- Recommend focus on grand solution – cooperation of several institutions

30. The Proposal

- Run conventional cars on hydrogen, perhaps fuel cells later
- Provide hydrogen with cheap electricity – 50 new efficient nuclear plants
- New plants use Yucca Mountain destined rods
- Results:
    i. 65% reduction in national greenhouse gas emissions
    ii. Petroleum requirements down 35% (No need for Middle East supply)
    iii. *No* environmental footprint from cars – emission is water
    iv. Balance of payments? 1/4 trillion annual improvement

Detroit...

Elevator Pitch

- Demystify regression of U. S. auto industry
  - Failure to thrive '64 – '09
- Analyze the actions & motivations of the players
- Propose set-up for equitable*, prosperous and sustainable future
  - Benefit of U. S. industry & Detroit
- Corollary Feature:
  - Help and encourage readers to become "Automotive citizens"

1955 vs. 2009

- Then
  - Proud as "Arsenal of Democracy"
  - Admiration of the world
  - 80% ww market share of autos, Lt. trucks
  - Laissez faire design of vehicles
  - Cooperative enablers
  - Only transportation system supplier generating "negative subsidy"
  - Employed 1,300,000 UAW members

Now

- 2009
  - Controlling "collaborators"
  - Unrealistic & *fixed* deadlines
  - Inability to innovate
  - Called to D. C. for degradation
  - New U. S. competitors w/cost advantages
  - "idiots" still driving, gasoline still propelling*

Idiots & Gasoline

- Billions of dollars and 40 years wasted trying to *mitigate* crashes
- Should rather have been trying to *eliminate* crashes
  - New sensor and miniature circuit technology ignored.
- Similarly, should have been trying to develop new energy source rather than focus on protocols for predictably obsolete fuel
- Need collaboration as we had when America "exceptionalized" itself with railroads, electricity, electronics, audio visual, automotive.

What the H--- Happened?

- Preliminary villains list:
  - Environmental Protection Agency?
  - Department of energy (U. S.)?
  - Taxation policies?
  - Pre-emptive technology? Sloppy finances?
  - U. A. W.? Ralph Nader?
  - Import competition?
  - Fat cats themselves?
  - Oil Supply? Others? Answer?

What the H--- Happened?

- Preliminary villains list:
  - Environmental Protection Agency?
  - Department of energy (U. S.)?
  - Taxation policies?
  - Pre-emptive technology? Sloppy finances?
  - U. A. W.? Ralph Nader?
  - Import competition?
  - Fat cats themselves?
  - Oil Supply? Others? Answer?
  - ➔(Multiple choice test takers will know) ←

Best Answer

- Most of the above!

Qualifications and impetus

- How started? Princeton '08 at seminar
- Why Me?
  - Immersed in industry – 50 years
  - Social graces: Detroit & Flint, MI
  - Sales Director, 2 of largest parts suppliers to "big 3" (Zelig advantage)
  - Suffered onset of new "collaborators"
  - Products involved safety, emissions, fuel economy
  - Inclination to ask impolitic questions

Qual. & Imp. (cont.)

- Opinionated
- Excellent long term memory
  - (don't ask about short version)
- Focused on business aspects

Personal professional thumbnails

- 10 year old prodigy participates in automotive dilemmas
- Great Detroit public schools
- Dreariness of General Motors Institute
- Supplier account executive to big 3 – Fun!
- Work for Chuck DeLorean – trip!
- Conglomerate (LSI) represents odd culture
- Detroit idiosyncracies
- Canadian oddities
- Who speaks Motown?
- 1980 Bendix/MM sharks devour each other

Industry Activity

(& some idiocies personified)

- Computers & Industry, dicey at first
- Profile of companies
- Inflexibility of new edicts
- Safety campaigns
- C. A. F. E. rules; (less than rational)
- Evolution of Airbags
- Evolution of hybrids & critique
- Selling automotive technology on 6 continents
- Personal: Selling & buying auto. tech., 6 cont.

Future Power Set-up

- Desirable criteria for fuel
  - Plentiful
  - Minimal carbon content
  - Not seasonably produced
  - No new environmental problems
  - Reasonable range
  - Free market, no politics, no cartels
  - Not co-mingled or by-product
  - Competitive; no long term subsidy
  - Refueling; no more than "leg-stretch"
  - Ideally, compatible with ICE
  - Inexhaustible reserves

Other?

Fuel Nominees

- Petroleum
- Agricultural
- Electric/Battery
- Wind/Solar (enabler for elect.)
- Hydrogen

Other? Which?

Marry w/motor or other

- I C E
- Diesel
- Fuel cells
- Electric
- Hybrid

Other?

Hydrogen!

- 70% of world covered in hydrogen
- What comes out tailpipe? (H_2O)
- Use in either I C E or fuel cell
- Leapfrogs *all* environmental problems
- Eliminate foreign payments
- Defuses O. P. E. C.

Considerations

- Detractors
  - High amounts of energy to extract from water
  - Almost dictates nuclear power
  - Ref.: M. I. T. project
- Yet to solve:
  - Capital cost power plants
  - Range per fill-up?
  - Safety issues with compressed hydrogen?

Re-energize U. S. auto industry

& U. S Economy

- Create new equitable system to balance and adjust priorities, ensure collaboration
- Create level playing field
- Temporarily freeze current levels of oversight
- Review of policies and their effects.

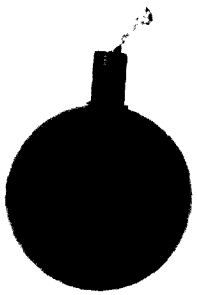
How?

- Establish elite ad hoc committee
  - Best thinker in various fields
  - Example: Challenger
- Make recommendations to congress
  - Re-assign responsibilities as appropriate
    - Fuel standards
    - Safety standards
    - Licensing standards
    - Highway funding & funds flow
    - Insurance issues?

For committee to consider:

- General support for domestic industry (or not)
- Conduct forensic study: historical cost vs. benefit & domestic effect, past 50 years
  - Too much hardware focus?
  - Too little driver and alcohol focus?
  - Interagency squabbles, political considerations?
- Establish new tech. co-ord. admin. ?
  - new propulsion systems
  - Self-driving systems

Urgent Issues?



On Deck

- Current future C. A. F. E. rules will preclude Ford, General Motors and former Chrysler from being competitive manufacturing here in U. S. As we speak, they probably are thinking of becoming "offshore" companies.
- On that happy note, "join the dialogue"
- Thanks for coming and listening
- Spread the word
- Stay 10+ inches from steering wheel

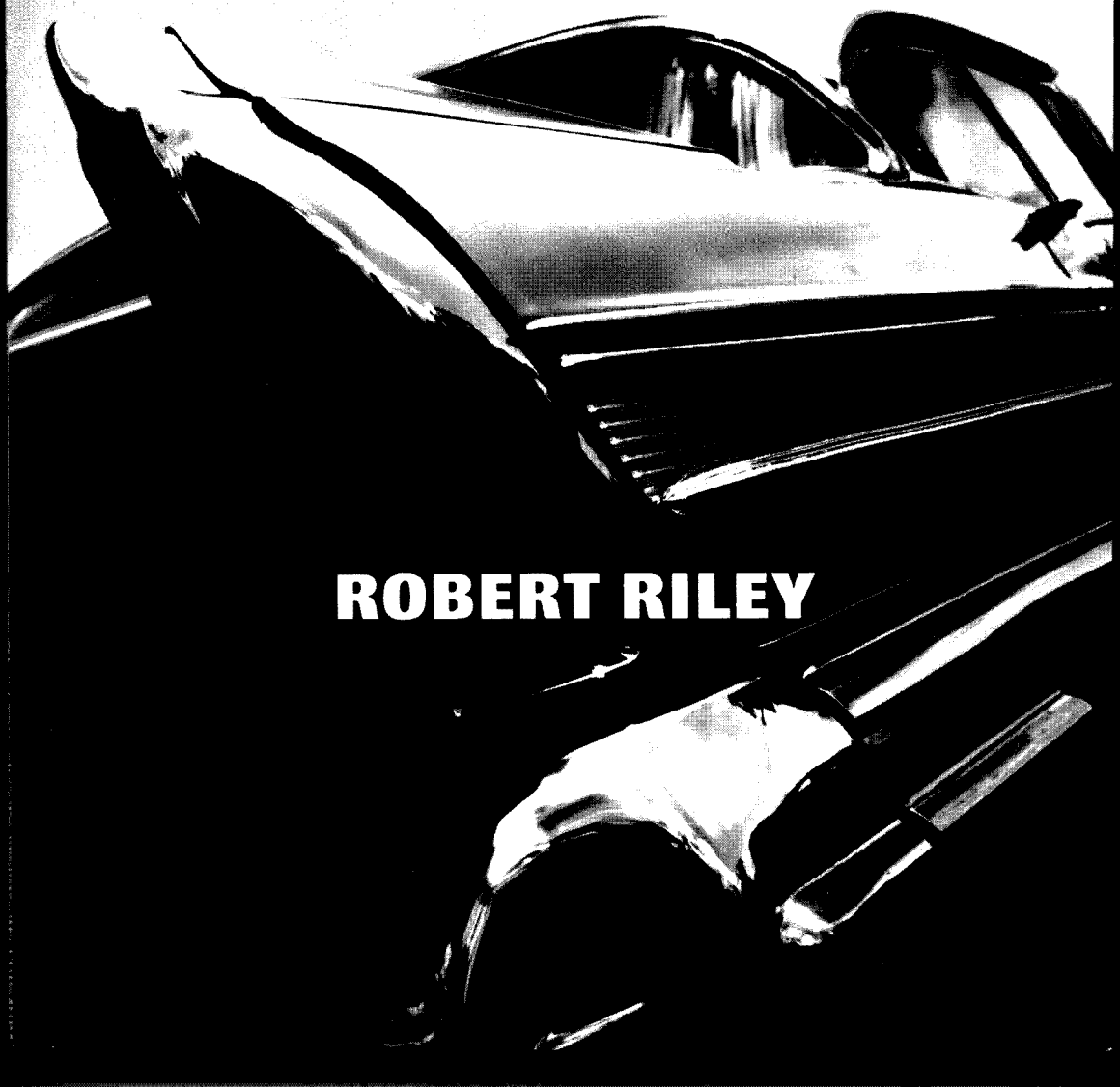
Detroit...Why the Circus Left Town (Transcribed from Writer's Digest)

Lovingly critical, this book details the treadmill of Detroit's well known problems as the center of car manufacture in the U.S. from the personal perspective of the author who was long immersed in the automotive industry. His richly detailed memoir is meant to serve two goals: to demystify why the industry suffered and to propose a scenario for a sustainably prosperous future. After covering his personal background and Detroit during the 1937-1945 period, the author traces key post World War II events and personalities that greatly influenced car production and the city's well being. Among the many issues dissected are the impact of two-car families and suburbia, initiation of the interstate highway system, first foreign car imports such as the Volkswagon, advent of luxury cars, elimination of the federal excise tax on cars, new safety laws and compulsory seat belts, new fuel economy laws, gas shortages, union issues, etc. Hybrids and alternative fuels are also assessed. Footnotes help explain the fascinating trove of civic material. The first-person writing is clear, sometimes folksy, and consistently interesting. Some chapters have subheads but more are needed in the longer chapters. An unusual chart in the appendix area lists major events, the year they took place, and a comment by the author on their impact on the industry. The book could use a pictorial dimension which could be of personalities, factories, and other icons of the automotive field. The title and subtitles, plus the cover design, all work well.

DETROIT...

Why the Circus Left Town

A Definitive Memoir



ROBERT RILEY

Copyright © 2015 by Robert Riley
All Rights Reserved

This is a personal memoir.

Without limiting the rights under copyright reserved above,
no part of this publication may be reproduced,
stored in or introduced into a retrieval system,
or transmitted, in any form or by any means
(electronic, mechanical, photocopying, recording or otherwise),
without the prior written permission of the copyright owner.

First Edition
2015

Printed in the United States of America.

ISBN-13: 978-1502479808
ISBN-10:150247980X

Cover photograph: © istock.com/Bim

Cover design and author's photograph:
Main Street Design, San Diego

"Her voice
Gentle and low, an exc

King
Act V,

To my

Co-founder, exemplar and standard-be
Over the years, produ
coordinator of twe
and welcomed parti
of each chilc
and subsequent

The resulting 18 Riley m
approximately 22
If one does the math, these
153 unique 1-on-1 fa

The result: To the best of my knowledge
night of estrangement betwe

Remark

But not surprising if one consi
and the personal st

We have bee

"Who speaks Motown?"

ROBERT RILEY

Robert Riley writes about his life in the city of Detroit and his career in the great American automotive industry.

"I love Detroit, but this story isn't about Detroit. In somewhat the same manner, like most Americans, I love cars, but this is not a story about cars. What I really, **really** loved was being immersed in the business of **making** American cars, starting at a time almost 60 years ago, when particularly the American automotive industry basked in almost universal admiration."

This book will:

* Demystify the U.S. industry's failure to thrive;
* Propose a scenario for a prosperous and sustainable future for the industry and its host city.

$17.95

ISBN 9781502479808
90000 >
9 781502 479808

"Her voice was ever soft,
Gentle and low, an excellent thing in woman."

King Lear
Act V, Scene iii

To my Susan.

Co-founder, exemplar and standard-bearer for our niche of the Riley family.
Over the years, producer of five children,
coordinator of twelve family moves
and welcomed participant and observer
of each child's marriage
and subsequent child rearing.

The resulting 18 Riley members have aggregated
approximately 225,000 man-days.
If one does the math, these 18 people have generated
153 unique 1-on-1 familial relationships.

The result: To the best of my knowledge, never has there been one day or one night of estrangement between any of the participants.

Remarkable!

But not surprising if one considers the capacity for loving
and the personal stature of the guru.

We have been blessed.

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R09-OAR-2016-0292; FRL-9958-79-Region 9]

Approval and Revision of Air Plans; Arizona; Regional Haze State and Federal Implementation Plans; Reconsideration

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is taking final action to approve a source-specific revision to the Arizona state implementation plan that addresses the best available retrofit technology requirements for the Cholla Power Plant (Cholla). The EPA finds that the state implementation plan revision fulfills the requirements of the Clean Air Act and the EPA's Regional Haze Rule. In conjunction with this final approval, the EPA is taking final action to withdraw the federal implementation plan provisions applicable to Cholla. This also constitutes our action to address petitions for reconsideration granted by the EPA related to Cholla.

DATES: This rule is effective on **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

ADDRESSES: The EPA has established a docket for this action, identified by Docket ID Number EPA-R09-OAR-2016-0292. The index to the docket is available electronically at *http://www.regulations.gov* or in hard copy at the EPA Region IX office, 75 Hawthorne Street, San Francisco, California. While all documents in the docket are listed in the index, some information may be publicly available only at the hard copy location (*e.g.*, copyrighted material),

and some may not be publicly available in either location (*e.g.*, confidential business information). To inspect the hard copy materials, please schedule an appointment during normal business hours with the contact listed below.

FOR FURTHER INFORMATION CONTACT: Anita Lee, (415) 972-3958, or by email at lee.anita@epa.gov.

SUPPLEMENTARY INFORMATION: Throughout this document whenever "we," "us," or "our" is used, we mean the EPA.

TABLE OF CONTENTS

I. Background
II. Public Comments and the EPA's Response to Comments
  A. Comments on the BART Reassessment
  B. Comments on Visibility Benefits
  C. Comments on the CAA Section 110(l) Analysis
  D. Other Comments
III. Summary of Final Action
IV. Environmental Justice Considerations
V. Incorporation by Reference
VI. Statutory and Executive Order Reviews

I. Background

On July 19, 2016, the EPA proposed to approve the source-specific regional haze state implementation plan (SIP) revision for the Cholla Power Plant ("Cholla SIP Revision") submitted to the EPA by the Arizona Department of Environmental Quality (ADEQ).[1] The EPA concurrently proposed to withdraw federal implementation plan (FIP) provisions applicable to Cholla and proposed that the FIP withdrawal would constitute the EPA's action on petitions for reconsideration of the FIP.

[1] *See* 81 FR 46852, July 19, 2016.

This section provides a brief overview of the statutory and regulatory background for this action. Please refer to the proposed rule for additional discussion of the visibility protection provisions of the Clean Air Act (CAA or "Act") and the Regional Haze Rule (RHR), and the EPA's evaluation of the regional haze SIP revision for Cholla.[2]

In section 169A of the 1977 Amendments to the CAA, Congress created a program to protect visibility in the nation's national parks and wilderness areas. This section of the CAA established as a national goal the "prevention of any future, and the remedying of any existing, impairment of visibility in mandatory Class I Federal areas which impairment results from manmade air pollution," and directed states to evaluate the best available retrofit technology (BART) to address visibility impairment from certain categories of major stationary sources built between 1962 and 1977 (known as "BART-eligible" sources).[3] In the 1990 CAA Amendments, Congress amended the visibility provisions of the CAA to focus attention on the problem of regional haze, *i.e.,* visibility impairment produced by a multitude of sources and activities located across a broad geographic area.[4]

In 1999, the EPA promulgated the RHR that required states to, among other things, conduct an analysis to determine BART for each BART-eligible source that may be anticipated to cause or contribute to visibility impairment in a Class I area.[5] States must analyze and consider the following five factors as part of each source-specific BART analysis: (1) the costs of compliance, (2) the energy and nonair quality environmental impacts of compliance, (3) any existing pollution control technology in use at the source, (4) the remaining useful life of the source, and (5) the degree of visibility improvement that may reasonably be anticipated to result

---

[2] *Id.*
[3] *See* CAA section 169A(a)(1).
[4] *See* CAA section 169B.
[5] 40 CFR 51.308(e).

from use of such technology (collectively known as the "five-factor BART analysis").[6] In determining BART for fossil fuel-fired electric generating plants with a total generating capacity in excess of 750 megawatts (MW), states must use guidelines promulgated by the EPA.[7] In 2005, the EPA published the current version of the "Guidelines for BART determinations under the Regional Haze Rule," codified at Appendix Y to 40 CFR part 51 ("BART Guidelines").[8]

Cholla consists of four coal-fired electric generating units with a total plant-wide generating capacity of 1150 MW. Unit 1 is a 126 MW boiler that is not BART-eligible. Unit 2 (272 MW), Unit 3 (272 MW), and Unit 4 (410 MW) are tangentially-fired dry bottom boilers that are BART-eligible. Units 1, 2, and 3 are owned and operated by Arizona Public Service Company (APS). Unit 4 is owned by PacificCorp and operated by APS.

On February 28, 2011, ADEQ submitted a regional haze SIP under section 308 of the RHR to the EPA ("2011 RH SIP"). This submittal included, among other things, BART analyses and determinations for Cholla Units 2, 3, and 4 for oxides of nitrogen (NO_X), particulate matter with an aerodynamic diameter of less than 10 micrometers (PM_{10}), and sulfur dioxide (SO_2).[9] On December 5, 2012, the EPA took final action that approved in part and disapproved in part the 2011 RH SIP. The EPA found that ADEQ's overall approach in conducting its BART analyses was appropriate, but we also identified significant flaws in the analyses for specific BART factors that warranted disapproval of the NO_X BART determination for Cholla. Specifically, the EPA found that ADEQ did not calculate the costs of compliance in accordance with the BART Guidelines, did not appropriately evaluate and consider the visibility benefits, did not provide

---

[6] *See* CAA section 169A(g)(2) and the RHR at 40 CFR 51.308(e)(1)(ii)(A).
[7] *See* CAA section 169A(b)(1) and the last sentence of 169A(b).
[8] *See* 70 FR 39104, July 6, 2005.
[9] The 2011 RH SIP submittal is document number 0017 in the docket for this rulemaking at EPA-R09-OAR-2016-0292, entitled "B.1.a ADEQ RH 308 SIP 2011-SIP only."

sufficient explanation and rationale for its final BART determination, and did not include enforceable emission limits in the SIP.[10] In the same action, the EPA promulgated a FIP for the disapproved portions of the SIP, including a NO_X BART determination for Cholla that established an emission limit of 0.055 pound per million British thermal units (lb/MMBtu) determined across the three units on a rolling 30-boiler-operating-day average, with a compliance date of December 5, 2017. This limit is achievable with the combination of low-NO_X burners with separated over-fire air (LNB+SOFA) and selective catalytic reduction (SCR). The FIP also established an SO_2 removal efficiency requirement of 95 percent for Units 2, 3, and 4 with a compliance date for Units 3 and 4 of December 5, 2013, and a compliance date for Unit 2 of April 1, 2016. Finally, the FIP also established compliance deadlines, compliance determination methodologies, and requirements for equipment maintenance, monitoring, recordkeeping, and reporting for NO_X, SO_2 and PM_{10}.[11] On April 9, 2013, the EPA granted petitions to reconsider the compliance determination methodology for NO_X.[12]

On January 15, 2015, APS and PacifiCorp submitted an "Application for Significant Permit Revision and Five-Factor BART Reassessment for Cholla" to ADEQ. APS and PacifiCorp committed to take specific actions in lieu of the FIP requirements for Cholla and requested that ADEQ conduct a revised BART analysis and determination ("BART Reassessment") and submit it to the EPA as a revision to the Arizona RH SIP. Specifically, APS and PacifiCorp committed to (1) permanently close Cholla Unit 2 by April 1, 2016, (2) continue to operate LNB+SOFA on Units 3 and 4, and (3) by April 30, 2025, permanently cease burning

---

[10] *See* generally, *Ariz. Ex rel. Darwin v. US EPA*, 815 F.3d 519 (9th Circuit, 2016).
[11] *See* 77 FR 72511, December 5, 2012.
[12] *See* letter from Jared Blumenfeld, EPA Region IX, to E. Blaine Rawson, Ray Quinney & Nebeker P.C. (on behalf of PacifiCorp), dated April 9, 2013; letter from Jared Blumenfeld, EPA Region IX, to Norman Fichthorn, Hunton and Williams LLP (on behalf of APS), dated April 9, 2013; and letter from Jared Blumenfeld, EPA Region IX, to Aaron Flynn, Hunton and Williams LLP (on behalf of APS), dated April 9, 2013.

coal at both units with the option to convert both units to enable combustion of pipeline-quality natural gas by July 31, 2025, with an annual average capacity factor of less than or equal to 20 percent.

On October 22, 2015, ADEQ submitted to the EPA the Cholla SIP Revision that incorporates the Cholla BART Reassessment. The Cholla SIP Revision consists of a revised BART analysis and determination for NO_X, an analysis under CAA section 110(l), and revisions to Cholla's operating permit to implement ADEQ's revised BART determination for NO_X and the commitments by APS and PacifiCorp related to the retirement and repowering of units.[13] ADEQ determined that if APS closed Unit 2 by April 1, 2016, no BART determination for Unit 2 would be necessary because the enforceable closure date is within the 5-year window for compliance with BART. For Units 3 and 4, ADEQ conducted a revised BART analysis in light of the commitments made by APS and PacifiCorp regarding future operation of those units. Based on its re-analysis of the BART factors, ADEQ determined BART for Cholla Units 3 and 4 to be LNB+SOFA when coal is combusted in those units. In the permit revision submitted as part of the Cholla SIP Revision, ADEQ established unit-specific emission limits for Cholla Units 3 and 4 of 0.22 lb/MMBtu, effective until the permanent cessation of coal burning on April 30, 2025, and an emission limit of 0.08 lb/MMBtu, effective May 1, 2025 and thereafter, that would apply if Units 3 or 4 are repowered to natural gas. Although ADEQ's BART determination for Cholla Units 3 and 4 is LNB+SOFA, the permit revision for Cholla sets an emission limitation achievable with this technology, but it does not specify that LNB+SOFA must be used.

[13] The Cholla SIP Revision is document number 0019 in the docket for this rulemaking at EPA-R09-OAR-2016-0292, titled "B.3. 2015-10-22 – Cholla SIP Revision."

The EPA's proposed action on the Cholla SIP Revision includes a comprehensive summary of ADEQ's BART Reassessment for Cholla Units 3 and 4, and the EPA's evaluation of ADEQ's submittal. In this section, we provide a brief summary of the EPA's evaluation of the Cholla SIP Revision. Please see the proposed rule for a detailed discussion of ADEQ's analysis and the EPA's evaluation of it.[14]

In our evaluation of Cholla Unit 2, we noted that the permanent retirement date of April 1, 2016, in the Cholla SIP Revision coincides with the compliance deadlines for SO_2 and PM_{10} in the FIP and precedes the compliance deadline for NO_X by over 1 year. The EPA further noted that Unit 2 permanently closed on October 1, 2015.[15] If Unit 2 had not retired, APS would have been required to install additional controls to meet the applicable SO_2, PM_{10}, and NO_X limits. Because the requirement for the permanent retirement of Unit 2 will become effective and federally enforceable when the Cholla SIP Revision is approved into the SIP and the FIP provisions applicable to Cholla are withdrawn, we proposed approval of the requirement for permanent retirement of Unit 2 as meeting the requirements of the CAA and the RHR.

In our evaluation of Units 3 and 4, we found that ADEQ's BART Reassessment was consistent with the requirements of the CAA, the RHR, and the BART Guidelines and that it addressed the flaws that were the bases for our disapproval of the BART analysis for Cholla. Specifically, in its 2011 RH SIP, ADEQ's cost analysis was flawed because it included certain line item costs that were inconsistent with the EPA Control Cost Manual (CCM). This approach did not comply with the direction in the BART Guidelines to base cost estimates on the CCM. In

[14] *See* 81 FR 46852 at 46854-46863, July 19, 2016.
[15] *See* letter from Edward Seal, APS, to Kathleen Johnson, EPA, and Eric Massey, ADEQ, dated October 28, 2015.

its BART Reassessment for Cholla, ADEQ relied on the cost estimates, calculated using the CCM methodology, that the EPA developed as part of the FIP for Cholla.

In its 2011 RH SIP, ADEQ considered the visibility benefits of controls on only one unit at a time and overlooked significant benefits at the multiple Class I areas, thereby understating and not giving appropriate consideration to the full visibility benefits of the candidate controls. In its BART Reassessment for Cholla, based on modeling performed by APS and PacifiCorp, ADEQ evaluated the visibility impacts and potential improvements from all units together and also considered potential improvements at all 13 Class I areas within 300 kilometers of Cholla.

As discussed in our proposed rulemaking, the EPA also proposed to find that ADEQ appropriately considered and weighed the five BART factors in determining BART for Cholla. We stated that it was reasonable for ADEQ to conclude that the costs of SCR and selective noncatalytic reduction (SNCR) were not warranted by the visibility benefits. Specifically, we noted that we were not aware of any instance in which the EPA had determined SCR or SNCR to be BART where the average and incremental cost-effectiveness of those controls equaled or exceeded the average and incremental cost-effectiveness of those controls for Cholla Units 3 and 4. Nor were we aware of any instance in which the EPA disapproved a state's BART determination that rejected SCR or SNCR as BART based on average and incremental cost-effectiveness similar to those for Cholla Units 3 and 4. In addition, although we noted that the visibility benefits of SCR are significant, and the visibility benefits of SNCR are not insignificant, we determined that it was reasonable for ADEQ to determine that the benefits were not warranted given the costs of SCR and SNCR. Moreover, after approximately 8 years, when Units 3 and 4 cease coal combustion permanently and are either closed or converted to natural gas, the benefits of SCR and SNCR would be negligible.

Finally, in our proposed rulemaking, we evaluated the Cholla SIP Revision with respect to certain other requirements of the CAA and proposed to find that it would not interfere with attainment of the national ambient air quality standards (NAAQS), reasonable further progress, or any other applicable requirement of the CAA. We further noted that the enforceable emission limitations and the requirements for monitoring, recordkeeping, and reporting promulgated in the FIP for Cholla are included in the operating permit revision for Cholla that ADEQ included with its Cholla SIP Revision. Therefore, these requirements will remain federally enforceable when the Cholla SIP Revision is approved and the FIP provisions are withdrawn. Based on our evaluation of the Cholla SIP Revision, we proposed to approve the SIP revision, withdraw the FIP provisions, and to find that withdrawal of the FIP would constitute our action on the petitions for reconsideration submitted by APS and PacifiCorp.

II. Public Comments and the EPA's Response to Comments

We received four comment letters from the following organizations prior to the close of the comment period on September 2, 2016: (1) APS, (2) PacifiCorp, (3) Environmental Defense Fund and Western Resource Advocates, and (4) Earthjustice on behalf of National Parks Conservation Association and Sierra Club.[16]

A. Comments on the BART Reassessment

[16] *See* (1) letter from Chas Spell, Arizona Public Service, to Gina McCarthy, EPA, re: Arizona Public Service Company Comments on EPA's Proposed Rule *Approval and Revision of Air Plans; Arizona; Regional Haze State and Federal Implementation Plans; Reconsideration*, dated September 1, 2016; (2) letter from William K. Lawson, Pacificorp, to Vijay Limaye, EPA, re: Docket ID No. EPA-R09-OAR-2016-0292 Approval and Revision of Air Plans; Arizona; Regional Haze State and Federal Implementation Plans; Reconsideration (Proposed Rule), dated September 1, 2016; (3) letter from Bruce Polkowsky, Graham McCahan, Environmental Defense Fund, and John Nielsen, Western Resource Advocates to Vijay Limaye, EPA, re: Comments on the proposed approval of a source-specific revision to the Arizona Implementation Plan for Best Available Retrofit Technology at Cholla Generating Station. Docket ID No. EPA-R09-OAR-2016-0292, undated letter submitted to www.regulations.gov on September 2, 2016; and (4) letter from Michael Hiatt, Earthjustice on behalf of Kevin Dahl, Stephanie Kodish, and Nathan Miller, National Parks Conservation Association, and Sandy Bahr, Bill Corcoran, and Gloria Smith, Sierra Club, to Vijay Limaye, EPA, re: Arizona Regional Haze Plan – Cholla BART Reassessment, dated September 2, 2016.

Comment 1: One commenter asserted that the BART Reassessment violates the CAA's mandatory 5-year BART compliance deadline and the regulatory requirement to achieve visibility improvement in the first planning period that ends in 2018. In addition, the commenter argued that the BART Guidelines at Appendix Y state that in the event a source prefers to shut down to comply with BART, the BART requirement must maintain consistency with the statutory requirement to install BART within 5 years, and the source may not be allowed to operate beyond 5 years without BART controls in place. The commenter further stated that the EPA cannot scrap its existing BART determination for Cholla, which has been in effect for over 3 years, and issue a new BART determination that would restart the 5-year BART compliance clock. One commenter opined that because the EPA's proposal is unlawful, the EPA should leave the existing BART determination for Cholla in place.

Response 1: The EPA disagrees with the comment that the Cholla SIP Revision violates the 5-year compliance deadline for BART, the regulatory requirement to achieve visibility improvement in the first planning period, or the BART Guidelines. As discussed in our proposed rule, in the Cholla SIP Revision, ADEQ determined BART to be LNB+SOFA.[17] The emission limit associated with installation and operation of LNB+SOFA while burning coal at Cholla Units 3 and 4 is 0.22 lb/MMBtu. This emission limit is reflected in the Cholla permit revision that is included as Appendix A of the Cholla SIP Revision. The permit conditions will become effective and federally enforceable 30 days following publication of this final rule in the *Federal Register*, which we anticipate will be prior to the compliance deadline established in the FIP of December 5, 2017. Therefore, although we agree with the commenter that BART emission

[17] *See* 81 FR 46852 at 46856 (July 19, 2016).

limitations must be in place within 5 years of approval, we disagree with the commenter that ADEQ has restarted the 5-year BART compliance clock.

In addition to its BART determination for Cholla Units 3 and 4, ADEQ also included a permit revision for Cholla in its SIP submittal. The permit revision includes the 0.22 lb/MMBtu emission limitation that would apply until the permanent cessation of coal combustion in Units 3 and 4, and an emission limitation of 0.08 lb/MMBtu that would apply if the units are converted to natural gas. The commenter appears to have misconstrued these provisions related to future operation in 2025 to be part of ADEQ's BART determination. We consider the permit requirements to cease coal combustion in 2025 and comply with new emission limitations if Units 3 and 4 are converted to natural gas to be measures that strengthen the Cholla SIP Revision. The BART determination for Units 3 and 4 that we are approving is the 0.22 lb/MMBtu emission limit. This is consistent with ADEQ's response to a similar comment, stating: "Although the new proposal includes conversion to natural gas-firing at Units 3 and 4 in 2025, ADEQ did not consider it as a BART control option under the BART determination process because it is beyond the mandatory five-year window."[18] Furthermore, we note that because Cholla Units 3 and 4 currently cannot combust natural gas, there is no obligation for ADEQ to determine BART for those units if they are repowered to operate on natural gas.[19] Therefore, we consider the 0.08 lb/MMBtu emission limit to be a SIP-strengthening measure, and approvable as such, but we do not consider it to be part of the BART determination. In addition, the presence of an emission limit for future operation on natural gas as a SIP

---

[18] *See* Appendix F.6 Responsiveness Summary of the Cholla SIP Revision (page 6 of 10 in Appendix F.6).
[19] *See* SO_2 emission limits for San Juan Generating Station (76 FR 52387, August 22, 2011) and for 6 EGUs in Oklahoma (76 FR 81727, December 28, 2011), and NO_X emission limits for Jim Bridger and Naughton (79 FR 5031, January 30, 2014), where emission limits are higher than would be appropriate for BART if the units were combusting natural gas.

requirement is not critical to the withdrawal of the FIP. We are not addressing whether 0.08 lb/MMBtu would be an appropriate BART emission limit for these units if they were currently combusting natural gas. We note that because NO_X emissions resulting from natural gas combustion are low, there have been few if any SIPs or FIPs that have included a determination that BART for electric generating units (EGUs) combusting natural gas was a lower NO_X level than already being achieved at the source. We are approving the BART determination in the Cholla SIP Revision in light of the enforceable SIP requirement for Units 3 and 4 to cease coal combustion in 2025.

The Cholla SIP Revision also requires Cholla Units 3 and 4 to comply with the BART emission limit prior to the end of the first planning period in 2018. We further note that APS and PacifiCorp have already installed LNB+SOFA on Cholla Units 3 and 4.[20] In addition, the regulatory requirement cited by the commenters, to achieve visibility improvements in the first planning period, is associated with alternatives to BART as put forth in 40 CFR 51.308(e)(2). The Cholla SIP Revision is a re-analysis of BART that is based on new facts since the promulgation of the FIP; it is not an alternative to BART and compliance deadlines associated with alternatives to BART are not relevant to the Cholla SIP Revision.

We also disagree with the commenter's assertion that a BART determination that has been in place for over 3 years cannot be revised when a new material fact has arisen, *i.e.,* that the Cholla units will not continue to combust coal indefinitely, which had been an assumption of the original BART determination in the FIP. In the rule proposing to partially approve and partially disapprove the 2011 RH SIP, the EPA encouraged the State to submit a revised SIP to replace

[20] *See e.g.,* page 3 of the Cholla SIP Revision that states the LNB+SOFA are currently installed on Units 3 and 4.

our FIP, and we noted that the EPA would work with the State to develop a revised plan.[21] We anticipated that ADEQ might develop a SIP to address the flaws we identified in our review of the 2011 RH SIP. APS and PacifiCorp also petitioned the Administrator to reconsider certain aspects of the FIP for Cholla. We granted the petitions based on our intention to reconsider aspects of the compliance determination methodology in the FIP. Therefore, although the FIP for Cholla has been in place for over 3 years, the development of a revised BART analysis for this facility was not unexpected. As discussed elsewhere in this final rule, the compliance deadline for the revised BART emission limit for Cholla remains within the compliance deadline in the FIP of December 5, 2017. Thus, ADEQ did not extend the BART compliance deadline in the Cholla SIP Revision beyond the original compliance date of December 5, 2017.

Finally, as discussed elsewhere in this final rule, we disagree with the comment asserting that our action is unlawful. Based on our evaluation of the Cholla SIP Revision, we have determined that ADEQ conducted a BART analysis for Cholla that meets the requirements of the CAA, the RHR, and the BART Guidelines. Therefore, we disagree that the BART determination promulgated in the FIP should remain in place.

Comment 2: One commenter opined that the EPA's cost analysis for SNCR was flawed because the EPA based the average cost-effectiveness of SNCR on 8 years of operation on coal and 12 years of operation on natural gas. The commenter argued that the operation of SNCR on the units after the switch to gas in 2025 would result in over 12 years of additional interest and operation and maintenance costs with minimal pollution reduction benefits. The commenter asserted that operation of SNCR for the 8 years of coal combustion and then ceasing to operate SNCR when the units switch to natural gas would be more cost-effective. The commenter argued

[21] *See* 77 FR 42834, July 20, 2012.

that this would reduce the average cost-effectiveness of SNCR on Units 3 and 4 to $2,234 - $2,342 per ton of NO_X removed and the incremental cost-effectiveness (relative to LNB/SOFA) to $5,364 - $5,458 per ton of NO_X removed. The commenter further argued that its approach (to base the remaining useful life of SNCR on the time during which the facility would burn coal) is consistent with how the EPA considered the remaining useful life for other sources transitioning to gas or other fuels, and cited to the 2012 BART determinations for the Centralia and Boardman facilities. The commenter also pointed to the BART determinations for Healy Unit 1 in Alaska and CENC Unit 5 in Colorado, and reasonable progress determinations for the Craig Unit 3 in Colorado, where SNCR was determined to be cost-effective with average cost-effectiveness values that ranged from $3,526 – $4,887 per ton of NO_X removed and incremental cost-effectiveness values that ranged from $5,445 - $9,271 per ton of NO_X removed.

Response 2: In reviewing the analysis conducted by ADEQ to assess whether the Cholla SIP Revision is approvable, the EPA's role is to decide whether the SIP meets the requirements of the CAA, the RHR, and the BART Guidelines. In undertaking such a review, the EPA does not usurp a state's authority but ensures that such authority is reasonably exercised. The CAA and the RHR set forth five factors that a state must evaluate to reach a BART determination. However, the CAA and the RHR provide flexibility to the state in deciding how the factors in the analysis are weighed.

We note that this comment does not accurately distinguish between the EPA's cost analysis and the cost analysis by ADEQ. The only cost analysis that the EPA conducted directly was in support of the 2012 FIP establishing a BART emission limit for Cholla achievable with the installation and operation of SCR. The EPA's cost analysis was based on 20 years of operation because, at that time, there was no commitment from the facility owners that Cholla

would cease coal combustion in the future. Therefore, although the commenter refers to the cost analysis discussed in the proposed rule as "the EPA's cost analysis," the comment is actually about ADEQ's cost analysis for SNCR. For purposes of its BART Reassessment, ADEQ adapted the EPA's cost analysis from 2012 but revised the annual cost of controls to account for the planned cessation of coal combustion in 2025. The commenter is suggesting that ADEQ should have considered a control scenario that would require SNCR while combusting coal and would not require SNCR once the units are repowered to natural gas. The commenter asserts that this SNCR scenario would be more cost-effective than the operation of SNCR continuously for 20 years. Based on this consideration of cost-effectiveness, the commenter asserts that ADEQ should have determined SNCR, applied in this way, to be BART and that the EPA should not have proposed to approve the Cholla SIP Revision.

In its response to a similar comment made to ADEQ during the public comment period for the Cholla SIP Revision, ADEQ argued that it appropriately calculated the cost-effectiveness of SNCR based on a 20-year life, with 8 years of operation on coal, and 12 years of operation on natural gas, because it was reasonable to presume that if SNCR were required, the units would be required to operate for 20 years or more to recoup the investment.[22] The Cholla SIP Revision established as BART an emission limit of 0.22 lb/MMBtu, achievable with the installation and operation of LNB+SOFA. Although the units must cease coal combustion by April 30, 2025, the Cholla SIP Revision provides the option for those units to be repowered to natural gas with a NO_X emission limit of 0.08 lb/MMBtu and a 20 percent annual average capacity factor restriction. Emission rates from tangentially-fired boilers combusting natural gas can be expected

[22] *See* Appendix F.6 Responsiveness Summary of the Cholla SIP Revision (p. 8 of 10 in Appendix F.6). The comment submitted to ADEQ recommended calculating cost-effectiveness of SNCR based on a 7.4-year life. In this notice we generally refer to the period that Cholla Units 3 and 4 would combust coal as an 8-year period.

to range from an uncontrolled emission rate of 0.16 lb/MMBtu to a rate of 0.07 lb/MMBtu when controlled using flue gas recirculation.[23] Thus, although Units 3 and 4 could continue to operate well beyond 8 years if they are repowered to natural gas, operation of SNCR would not be required to meet the 0.08 lb/MMBtu emission limitation in the Cholla SIP Revision. Therefore, we agree with the commenter that in this case, for Cholla Units 3 and 4, it is reasonable to evaluate the cost-effectiveness of SNCR based on the period of time that SNCR would need to be in operation in order to comply with the applicable emission limitation.[24]

However, we further note that the assertion in the comment that ADEQ erred because it did not evaluate the cost-effectiveness of SNCR based on an 8-year life is incorrect. In its response to comments on the Cholla BART Reassessment, ADEQ stated that if it calculated the cost-effectiveness of SNCR based on a shorter (*i.e.,* 8-year) life the average cost-effectiveness would be less than $2,500 per ton of NO_X removed and the incremental cost effectiveness would be less than $5,700 per ton of NO_X removed. ADEQ responded that it would still reject SNCR because the incremental cost-effectiveness recalculated by the commenter, even at less than $5,700 per ton of NO_X removed, would not be justified based on the slight incremental visibility improvement. ADEQ evaluated the incremental visibility improvement of SNCR against LNB+SOFA and found that the differences in visibility improvement at the various Class I areas between the two control scenarios were relatively minor in most cases.[25] ADEQ noted that the cumulative incremental visibility improvement of SNCR (as compared to LNB+SOFA) for 13

---

[23] *See* spreadsheet titled "Natural gas EF.xlsx" in the docket for this rulemaking.
[24] However, we also note that if ADEQ had evaluated an emission limit for Units 3 and 4 applicable after the units are repowered to natural gas, that took into account the continued operation of SNCR, ADEQ's evaluation of the cost-effectiveness of SNCR based on 8 years of operation on coal and 12 years of operation on natural gas would have been more appropriate. We also note that the commenter cited to rulemakings for two facilities, Centralia and Boardman, to support the contention that the cost effectiveness of SNCR on Cholla Units 3 and 4 should have been calculated based on the period of time the units would be burning coal. Although we generally agree with the comment, we are not evaluating whether the facts associated with Centralia and Boardman support this argument.
[25] *See* Appendix F.6 Responsiveness Summary of the Cholla SIP Revision (p. 8 of 10 in Appendix F.6).

Class I areas was 1.32 deciviews (ranging from 0.01 to 0.28 deciview at individual Class I areas), with an average incremental improvement of 0.1 deciview. ADEQ further noted that the visibility benefits that would be associated with SNCR on Cholla Units 3 and 4 would last only until 2025 because the closure or conversion to natural gas would reduce the visibility benefit of SNCR.[26] ADEQ concluded that SNCR would not be cost-effective whether it assumed a useful life of 20 years or 8 years.[27]

The EPA considered ADEQ's response to the comment and continues to find that ADEQ's BART Reassessment for Cholla Units 3 and 4, even when the cost-effectiveness for SNCR is evaluated for an 8-year period, is consistent with the BART Guidelines and approvable.

The commenter also refers to three facilities, Healy Unit 1, Colorado Energy Nations Company (CENC) Unit 5, and Craig Unit 3, to highlight other average and incremental cost-effectiveness values that have been determined to be reasonable for BART or reasonable progress. We considered whether these comparisons support a conclusion that ADEQ was unreasonable in rejecting SNCR based on the average ($2,234 to $2,342 per ton of NO_X removed) and incremental ($5,364 to $5,458 per ton of NO_X removed) cost-effectiveness values recalculated by the commenter.

The average cost effectiveness values for the three facilities cited in the comment range from $3,526 to $4,887 per ton of NO_X removed and the incremental cost effectiveness values range from $5,445 to $9,271 per ton of NO_X removed.[28] The commenter correctly notes that SNCR was required for these facilities at average and incremental cost-effectiveness values that exceed both ADEQ's and the commenter's cost-effectiveness values for SNCR at Cholla Units 3

---

[26] *Id.*
[27] *Id.* (page 9 of 10 in Appendix F.6).
[28] *See* Final Rule for Healy Unit 1 (78 FR 10546, February 14, 2013) and final rule for CENC Unit 5 and Craig Unit 3 (77 FR 18052, March 26, 2012).

and 4. Although the comment did not cite specifically to the Boardman facility to highlight the cost-effectiveness of SNCR, in that case the state required, and the EPA approved, a final BART determination requiring Boardman to meet an emission limit of 0.23 lb/MMBtu achievable with new LNB and modified overfire air.[29] The state rejected SNCR for Boardman, with an average cost effectiveness of $1,816 per ton of NO_X removed, based on the small incremental visibility improvement of 0.18 deciview at the Mount Hood Wilderness Area and concerns that excess ammonia from SNCR may result in increased rates of ammonium sulfate formation.[30] Thus, although there are examples of states requiring SNCR at higher average and incremental cost-effectiveness values, there are also examples of states rejecting SNCR at even lower cost-effectiveness values than those recalculated by the commenter for SNCR at Cholla. We further note that while the state of Colorado determined BART for CENC Unit 5 to be SNCR (average cost-effectiveness of $4,918 per ton), in the same action, the state concurrently rejected SNCR for CENC Unit 4 (average cost effectiveness of $3,729 per ton) and determined BART for that unit to be LNB+SOFA.[31] Therefore, although we agree with the commenter that states have required SNCR at average and incremental cost-effectiveness values that are higher than its recalculated values for SNCR on Cholla Units 3 and 4, there are also examples of states that have rejected SNCR at average and incremental cost-effectiveness values that are similar to, or even lower than, the commenter's recalculated values for SNCR.

Furthermore, BART determinations are emission limitations rather than control technology determinations. For the three units cited by the commenter, the final BART or reasonable progress emission limits achievable with SNCR were 0.20 lb/MMBtu for Healy Unit

---

[29] *See* 76 FR 38997, July 5, 2011.
[30] *See* proposed rule, 76 FR 12651 at 12661, March 8, 2011.
[31] 77 FR 18052, March 26, 2012.

1, 0.19 lb/MMBtu for CENC Unit 5, and 0.28 lb/MMBtu for Craig Unit 3.[32] The BART emission limitation for Centralia, another facility cited by the commenter (but for other reasons), was 0.21 lb/MMBtu achievable with SNCR.[33] The final BART emission limitation put forth by ADEQ for Cholla Units 3 and 4, 0.22 lb/MMBtu achievable with LNB+SOFA, is generally consistent with the emission limits put forth for other facilities based on SNCR.

Although a comparison of cost-effectiveness values from other facilities is generally a useful exercise to assess the reasonableness of particular costs, the examples in the comment do not provide evidence to suggest that ADEQ's weighing of the cost-effectiveness of SNCR on Cholla Units 3 and 4 was unreasonable. In addition, cost-effectiveness is not the only factor in determining BART; each BART determination must be made on a case-by-case basis considering the relevant facts in each case. The CAA and the RHR provide flexibility to states in deciding how the five factors are weighed in determining BART. If the EPA were reassessing BART for Cholla Units 3 and 4 in a FIP action, the EPA might have weighed the factors differently than ADEQ and reached a different conclusion. However, the EPA has evaluated ADEQ's justification for rejecting SNCR based on its consideration of cost-effectiveness and the visibility improvements from SNCR in comparison to LNB+SOFA. We consider ADEQ's BART determination for Cholla Units 3 and 4 to be consistent with the BART Guidelines and a reasonable use of its discretion in weighing the BART factors.

Comment 3: One commenter argued that the EPA inappropriately relied on incremental costs and incremental visibility benefits. The commenter asserted that where a selection of a particular technology as BART is supported by reasonable total costs, incremental costs should

[32] 78 FR 10546, February 14, 2013 and 77 FR 18052, March 26, 2012.
[33] 77 FR 72472, December 6, 2012.

not be used to override that choice. The commenter further stated that the EPA only discussed incremental visibility benefits of SNCR relative to LNB and provided no way to assess the net visibility benefit of installing SNCR on Units 3 and 4 against the pre-LNB baseline for those units. The commenter opines that the EPA's lack of analysis of the net visibility improvements of SNCR is inconsistent with the EPA's prior action for Cholla.

Response 3: In this action, the EPA is evaluating the analysis conducted by ADEQ to assess whether the Cholla SIP Revision meets the requirements of the CAA, the RHR, and the BART Guidelines. We disagree with the commenter's assertion that it is inappropriate to rely on incremental costs or incremental visibility benefits. The CAA and the RHR specify that the states or the EPA must consider cost and visibility in the five-factor analysis. With respect to the cost factor, in promulgating the BART Guidelines, the EPA stated, "In addition, the guidelines continue to include both average and incremental costs. We continue to believe that both average and incremental costs provide information useful for making control determinations."[34] Section IV.4.e.1 of the BART Guidelines specifies that states should consider incremental cost-effectiveness in combination with the average cost-effectiveness. The commenter did not cite any regulatory language that would preclude incremental cost-effectiveness in considering the cost of compliance. With respect to using incremental visibility improvement, we acknowledge that the BART Guidelines do not explicitly address the issue of considering overall versus incremental visibility benefits. However, the EPA's response to comments when promulgating the BART Guidelines stated:

> For example, a State can use the CALPUFF model to predict visibility impacts from an EGU in examining the option to control NO_X and SO_2 with SCR technology and a scrubber, respectively. A comparison of visibility impacts might then be made with a modeling scenario whereby NO_X is

[34] *See* 70 FR 39104 at 39127, July 6, 2005.

> controlled by combustion technology. If expected visibility improvements are significantly different under one control scenario than under another, then a State may use that information, along with information on the other BART factors, to inform its BART determination.[35]

The EPA's regulations allow states to compare incremental cost-effectiveness and incremental visibility improvements between different technologies. The incremental visibility benefit is one way to compare the visibility improvements from various controls. Other states and the EPA have considered incremental visibility improvements in many BART determinations. For this BART determination, ADEQ weighed the small incremental visibility improvement against the incremental cost-effectiveness. Based on its weighing of these factors, ADEQ provided a reasoned justification for selecting LNB+SOFA as BART for Cholla Units 3 and 4, and properly exercised its discretion in its process for weighing the small visibility improvement against the cost-effectiveness to reject SCR and SNCR.

Comment 4: One commenter asserted that the EPA's analysis was flawed because it evaluated BART controls as if there was no existing BART determination in place for Units 3 and 4. The commenters opined that the EPA failed to analyze how various pollution controls and other measures would improve the BART Reassessment by eliminating any backsliding. The commenter recommended that the EPA evaluate installing SNCR in the next 18 months to improve the performance of the BART Reassessment beginning in 2018, and recommended four additional control strategies to reduce NO_X emissions between 2018 and 2025: (1) setting an earlier deadline for Units 3 and 4 to shut down or switch to natural gas, (2) restricting Units 3 and 4 to the lowest capacity factor necessary between 2018 and 2025, (3) requiring the use of hybrid NO_X reduction measures, *e.g.,* SNCR in combination with in-duct SCR catalysts, which

---

[35] *Id.* at 39129.

the commenter said can be installed at far lower cost and more quickly than conventional SCR, and (4) a combination of the listed measures with SNCR. The commenter opined that if this analysis had been done, it would have shown that SNCR and other measures would significantly improve the BART reassessment by cost-effectively reducing NO_X emissions from Units 3 and 4 prior to 2025.

Response 4: The EPA's role is to evaluate whether a state considered the appropriate factors and acted reasonably in doing so. In undertaking such a review, the EPA does not usurp a state's authority but ensures that such authority is reasonably exercised.

The commenter suggests that the EPA should have evaluated other NO_X control measures that would result in greater emission reductions from the Cholla SIP Revision and be more comparable to the emission reductions that would have been achieved under the FIP for Cholla. As with Comment 2, we note that the commenter has not accurately described whether it was ADEQ or the EPA that performed (or would perform) specific analyses. In this action, the EPA is reviewing the Cholla SIP Revision that was submitted for approval or disapproval. In that context, the issue is not whether the EPA should or will undertake the types of analysis recommended by the commenter, but whether ADEQ's failure to do so means that its BART determination cannot be approved. We have reviewed ADEQ's BART SIP for Cholla to determine whether it meets the requirements of the five-factor BART analysis, as outlined by the CAA, the RHR, and the BART Guidelines. ADEQ did not put forth a "better-than-BART" BART alternative pursuant to 40 CFR 51.308(e)(2), which would have required a comparison of emission reductions under BART and the BART alternative.[36] ADEQ properly evaluated the

[36] If ADEQ had done so, there would be a question posed as to whether it could at the same time re-determine BART in light of the changed plans for the operation of the Cholla units, or would have had to use the FIP as the benchmark. We do not address that question in this action.

new commitments by APS and PacifiCorp related to future operation of Cholla Units 3 and 4 in determining BART for those units. For the purposes of its 110(l) analysis, ADEQ compared emissions of NO_X, SO_2, and PM_{10} between its 2011 RH SIP and the Cholla SIP Revision, and also compared emissions of NO_X between the FIP and the Cholla SIP Revision.[37] ADEQ appropriately concluded that the differences in emissions were not inconsistent with CAA section 110(l). Nothing in 110(l) of the CAA, RHR, or the BART Guidelines requires ADEQ to ensure that the emission reductions from the Cholla SIP Revision would be numerically equivalent to the reductions that would have been achieved under the previously applicable plan (*i.e.*, the FIP). Comments on ADEQ's 110(l) analysis, and the EPA's responses to those comments, are provided in Section II.C, below.

The commenter also suggests that the EPA (again, the commenter mistakenly refers to the EPA rather than ADEQ) should have evaluated additional operational restrictions on Cholla Units 3 and 4, *e.g.,* an earlier date for retirement or repowering to natural gas, or capacity restrictions between 2018 and 2025. Although an earlier retirement date or capacity restrictions would reduce emissions, in general, states and the EPA would not impose a retirement or capacity restriction unless it is requested by the facility operator, because capacity and retirement are not "retrofit technolog[ies]" (the term used in the CAA) or "system[s] of continuous emissions reductions" (the term used in the RHR definition of BART). The BART Guidelines state that potentially applicable retrofit control alternatives typically prevent the formation of pollutants (*e.g.,* LNB) or control or reduce emissions of pollutants after they are formed (*e.g.,* SNCR or SCR), or are a combination of these processes.[38] The BART Guidelines go on to say

[37] *See* Tables 5 – 8 in the Proposed Rule, 81 FR 46852, July 19, 2016.
[38] *See* BART Guidelines at 70 FR 39104 at 39164, July 6, 2005.

that "we do not consider BART as a requirement to redesign the source," or to "direct States to switch fuel forms, *e.g.,* from coal to gas."[39] Therefore, consideration of earlier retirement, repowering, or capacity restrictions that were not put forth by the facility operator, is not required by the BART Guidelines.

The commenter also suggests that the EPA (again, the commenter mistakenly refers to the EPA rather than ADEQ) should have evaluated SNCR with in-duct SCR catalysts, or a combination of SNCR with earlier retirement, repowering, or capacity restrictions. ADEQ was not required to consider earlier retirement, repowering, or capacity restrictions to be consistent with the BART Guidelines, and the combination of SNCR with those measures does not change our determination. Regarding SNCR combined with in-duct SCR catalysts, the commenter stated that in-duct SCR catalysts can be installed at lower cost than conventional SCR. Although the EPA is aware that the technologies for hybrid SNCR combined with in-duct SCR systems have been around since the 1990s, we are not aware of the widespread use of these hybrid systems on comparably-sized boilers, and the commenter did not provide any supporting data or information of sufficient specificity to indicate that this technology should have been considered under BART or that it would have changed ADEQ's BART determination.[40] Therefore, we continue to consider ADEQ's BART determination for Cholla Units 3 and 4 to be consistent with the BART Guidelines, including its evaluation of LNB+SOFA, SNCR, and SCR.

Comment 5: One commenter disagreed with the EPA's statement that a BART reassessment for Cholla is necessary based on new facts that have arisen since the EPA's final

---

[39] *Id.*

[40] *See*, generally, discussion of in-duct SCR catalysts in "I-NOx™ Integrated NOx Reduction Technology-A Lower Capital Cost Solution for NOx Reduction," March 26, 2015, at http://www.mcilvainecompany.com/Decision_Tree/2015%20WEBINARS/March%202015/Stewart%20Bible,%20Fuel%20Tech%20-%20Hot%20Topic%20Hour%203-26-15.pdf.

BART determination in 2012. The commenter further opined that even if new facts could be used to justify extending the BART compliance deadline, the new facts at issue here would not be sufficient justification. The commenter also stated that a business decision by the facility operator to close Unit 2 in advance of the 2017 BART compliance deadline for that unit should not justify allowing Units 3 and 4 to delay compliance past 5 years. The commenter argued that no statutory or regulatory provisions, related guidance, or prior BART determinations allow, let alone recognize, a utility's lowest cost option to govern the outcome of a BART determination.

Response 5: We disagree with the assertions in this comment and generally find that the commenter has misunderstood our proposed action and the Cholla SIP Revision. The EPA did not state that a BART reassessment is necessary, but we did indicate that ADEQ has discretion to reassess BART in light of new information and to seek approval from the EPA for a SIP revision to replace the FIP. As stated elsewhere in this final rule, the Cholla SIP Revision does not extend the BART compliance deadline. It replaces the compliance requirements in the FIP with different requirements and earlier compliance dates. The 0.22 lb/MMBtu emission limitation for NO_X that ADEQ determined to be BART will be effective upon the effective date of this final rule and, therefore, earlier than the FIP's BART deadline of December 5, 2017.

In the Cholla SIP Revision, ADEQ conducted a BART Reassessment based on the new facts that arose following the EPA's FIP for Cholla. In 2015, APS and PacifiCorp committed to several operational changes at Cholla that affect specific factors in the five-factor BART analysis, namely, the remaining useful life of the facility and its corresponding effects on the cost-effectiveness of controls. Based on the commitments from APS and PacifiCorp to close Unit 2 by April 1, 2016, continue operation of Units 3 and 4 with LNB+SOFA and permanently cease coal combustion in those units by April 30, 2025 with the option to convert to natural gas

combustion by July 31, 2025 at a 20 percent or less average annual capacity factor, ADEQ conducted a revised BART analysis for Cholla Units 2, 3, and 4. ADEQ did not rely on the closure of Unit 2 to justify changes to the BART determination for Units 3 and 4. Rather, ADEQ reasonably determined that the enforceable closure of Unit 2 prior to December 5, 2017, satisfies the requirements of the RHR and the CAA for this unit. ADEQ then conducted a re-analysis of BART for Units 3 and 4 that considered the remaining useful life of potential control technologies in light of the commitments made by APS and PacifiCorp related to those units. Based on the changes to the cost effectiveness of controls, ADEQ reasonably rejected SNCR and SCR as too costly in comparison to the small additional visibility benefits, and concluded that the visibility benefits of SNCR or SCR controls after 2025, when coal combustion ceases and assuming those units are repowered to natural gas, would be negligible. ADEQ's final BART determination for Cholla Units 3 and 4 is an emission limitation of 0.22 lb/MMBtu that will be effective upon the effective date of this final rule. Therefore, we disagree that our proposal to approve the Cholla SIP Revision extends any BART compliance deadlines, and we also disagree with the commenter that the new facts do not warrant a revised assessment of BART for Cholla.

Although we agree with the commenter that the RHR and BART Guidelines do not require BART determinations to align with a utility's lowest-cost option, we also note that this action is not based on the SIP revision's being the lowest-cost approach. If the FIP were to remain in place, APS would be free (with respect to CAA requirements) to cease coal combustion as a way to comply with the SCR-based BART emission limit, based on its own considerations.[41] In this case, APS and PacifiCorp have committed to cease coal combustion in Units 3 and 4 in 2025. Although the motivation for this commitment is irrelevant for purposes of

---

[41] *See* BART Guidelines, 70 FR 39104 at 39171, July 6, 2005.

the RHR, the state has discretion to reassess a BART determination for Cholla that takes into account the shorter period of coal combustion because of the potential effect this has on the five BART factors.

Comment 6: One commenter stated that the BART Reassessment will result in significant public health and environmental benefits, including very significant near-term and ongoing reductions in climate-disturbing pollution, toxic mercury, and particulate matter, and that the complete closure of Unit 2 has already resulted in some near-term benefits. The commenter described similar multi-pollutant BART approaches finalized elsewhere in the Southwest. The commenter cited to the Cholla SIP Revision to provide estimates of emission reductions from the BART Reassessment compared to the 2011 RH SIP: by 2046, the BART Reassessment will reduce cumulative SO_2 emissions by about 170,000 tons and cumulative PM_{10} emissions by 15,000 tons compared to the 2011 RH SIP. In addition, the commenter estimates that when fully implemented (after 2026), the BART Reassessment will reduce CO_2 emissions by 90 percent from current annual emissions and reduce mercury emissions from 430 pounds to three pounds per year.

Response 6: We agree with the commenter that the Cholla SIP Revision will result in significant near-term and ongoing environmental benefits. Although the BART Reassessment for Cholla focused on NO_X reductions, emission reductions of other pollutants, as described by the commenter, also have occurred as a result of the closure of Unit 2 in 2015 and will occur after the closure or repowering to natural gas of Units 3 and 4 in 2025. In addition, we agree with the commenter that similar multi-pollutant approaches have been taken elsewhere, and we also note that approaches consisting of interim emission limitations combined with commitments to retire early or repower to natural gas are common, *e.g.,* a SIP revision (to replace a FIP) that put forth a

revised BART determination for the four units at the San Juan Generating Station in New Mexico involving closure of two units by the end of 2017 and an emission limit of 0.23 lb/MMBtu, achievable with SNCR, on the remaining two units; a SIP revision (to replace a FIP) that put forth a revised SO_2 BART determination for two units at the Northeastern Power Station in Oklahoma involving closure of one unit in 2016 and interim emission limits and capacity restrictions leading to closure of the second unit by the end of 2026; a SIP revision (to replace a FIP) that put forth a BART alternative for two units at the Apache Generating Station in Arizona that involved conversion of one unit to natural gas and SNCR on the remaining coal-fired unit; as well as the EPA actions on the RH SIPs for Oregon and Washington approving the BART determinations for Boardman and Centralia involving interim emission limitations similar to those imposed on Cholla, and retirements around 2020 or 2025.[42]

Comment 7: One commenter noted that the BART Reassessment will result in higher NO_X emissions and visibility impacts from 2018 to 2025 and therefore urged the EPA to examine whether those impacts could be mitigated through a lower continuous emission limit for SO_2 or other measures. The commenter noted that the current permitted SO_2 emission rates at Cholla do not reflect recent operating levels for SO_2.

Response 7: In this action, we are reviewing the Cholla SIP Revision that was submitted for approval or disapproval. In that context, the issue is not whether the EPA should examine the types of mitigation measures recommended by the commenter, but whether ADEQ's failure to do so means that its BART determination cannot be approved. The EPA must evaluate whether a

---

[42] *See* 79 FR 60985, October 9, 2014 (final action on revised BART determination for San Juan in New Mexico); 79 FR 12944, March 7, 2014 (final action on revised BART determination for Northeastern in Oklahoma); 80 FR 19220, April 10, 2015 (final action on alternative to BART for Apache in Arizona); 76 FR 38997, July 5, 2011 (final action on BART determination for Boardman in Oregon); and 77 FR 72742, December 6, 2012 (final action on BART determination for Centralia in Washington).

state considered the appropriate factors and acted reasonably in doing so. In undertaking such a review, the EPA does not usurp a state's authority but ensures that such authority is reasonably exercised.

The EPA agrees that NO_X emissions and visibility impacts will differ between the Cholla SIP Revision and the provisions of the FIP that are being withdrawn, and that NO_X emissions from Units 3 and 4 between 2018 and 2025 under the Cholla SIP Revision will be greater than emissions from those units under the Cholla FIP. However, after April 30, 2025, when APS and PacifiCorp permanently cease coal combustion in Units 3 and 4 with the option to convert to natural gas (at a 20 percent annual average capacity factor), emissions from the Cholla SIP Revision will be substantially lower than emissions from those units under the FIP. However, we acknowledge that in determining whether the BART Reassessment can be approved, we may not take into account these greater emission reductions in 2025 and thereafter.

Although a lower SO_2 emission limitation before 2025 would certainly be environmentally beneficial, we note that we have previously approved the SO_2 BART emission limits for Cholla.[43] ADEQ's new BART determination was for NO_X, and we must approve it if it meets the requirements of the five-factor BART analysis, as outlined by the CAA, the RHR, and the BART Guidelines. ADEQ did not put forth a BART alternative pursuant to 40 CFR 51.308(e)(2), which would have required a comparison of emission reductions under BART and the BART alternative. ADEQ properly evaluated the new commitments by APS and PacifiCorp related to future operation of Cholla Units 3 and 4 in determining BART for those units. For the purposes of its 110(l) analysis, ADEQ did compare emissions of NO_X, SO_2, and PM_{10} between

[43] *See* 77 FR 72511 (Dec. 5, 2012). We approved the SO_2 BART emission limits but promulgated FIP provisions for the compliance testing method because the SIP lacked those elements.

its 2011 RH SIP and the Cholla SIP Revision, and compared emissions of NO_X between the FIP and the Cholla SIP Revision.[44] ADEQ appropriately concluded that the differences in emissions that it found would not conflict with CAA section 110(l). Nothing in 110(l) of the CAA, the RHR, or the BART Guidelines required ADEQ to ensure that the numerical emission reductions from the Cholla SIP Revision would be equivalent to the reductions that would have been achieved under the FIP. Comments and the EPA's responses on ADEQ's 110(l) analysis are provided elsewhere in Section II.C.

Comment 8: One commenter noted that although it does not agree with every reason cited by the EPA in the proposed action, it urges the EPA to more forward to issue a final approval for the BART Reassessment.

Response 8: We are taking final action in this notice to approve the Cholla SIP Revision and withdraw the provisions of the FIP that applied to Cholla.

Comment 9: One commenter stated that it supports the EPA's proposed approval of the BART Reassessment for the following reasons: (1) the SIP revision includes enforceable emission limits, (2) the EPA's proposal is based on its own analysis of Arizona's SIP and the five-factor BART analysis, (3) the EPA appropriately considered Unit 1 as not BART-eligible, but included Unit 1 in the visibility modeling because the Cholla SIP Revision also requires that Unit 1 cease burning coal by April 30, 2025 with the option to repower to natural gas at a 20 percent capacity factor, (4) the BART Reassessment will provide for greater reasonable progress toward the final goal of natural conditions earlier than the original FIP, and (5) the EPA's analysis demonstrates that additional controls would provide only a small visibility improvement at a cost that is beyond what the EPA has required of any other BART-eligible EGU.

---

[44] *See* Tables 5 – 8 in the Proposed Rule, 81 FR 46852, July 19, 2016.

Response 9: We are taking final action in this notice to approve the Cholla SIP Revision and withdraw the provisions of the FIP that applied to Cholla. However, we note that the commenter attributed to the EPA the analyses and conclusion that should actually be attributed to ADEQ.

B. Comments on Visibility Benefits

Comment 10: One commenter expressed concern that visibility benefits of installing various levels of NO_X control on Units 3 and 4 were underestimated because the modeling included emissions from Unit 1 (at the same level in each NO_X control scenario for Units 3 and 4), even though there is no enforceable commitment to retire Unit 1. The commenter cited to a discussion in the preamble to the BART Guidelines related to the effect of using existing conditions versus natural visibility conditions as the baseline for single source visibility impact determinations. The commenter argued that the inclusion of Unit 1 in the visibility modeling for Units 3 and 4 resulted in a decrease in the modeled benefit of installing controls on those units.

Response 10: We agree with the commenter that including Unit 1 in the modeling reduces the estimate of the visibility benefit of controls on Units 3 and 4. We also agree that if Unit 1 were part of some source other than Cholla, it should have been excluded from the modeling. However, the EPA does not agree that this procedure is incorrect given the fact that Unit 1 is part of the single source that is Cholla. While Unit 1 is, in some sense, "an existing condition" for purposes of evaluating the impacts of Units 3 and 4, it is very different than the "existing conditions" in the EPA statement cited by the commenter.[45] The BART Guidelines describe the ambient conditions to use in assessing the visibility impact of a source; consistent with the ultimate goal of the RHR, the visibility impact is assessed relative to natural conditions. The

[45] *See* BART Guidelines, 70 FR 39104 at 39124, July 6, 2005.

preamble to the BART Guidelines explains why a meaningful measure of visibility impacts and potential benefits for a single source requires the use of pristine natural background rather than existing conditions, which would reflect the impact of hundreds of existing sources.[46] This is not directly relevant to the issue of whether to include a single additional unit at the source being evaluated for BART. In practice, for modeling, source impacts are computed as delta deciviews, which is the difference in deciviews between the visibility due to the source combined with the natural background, and the visibility due to the natural background alone. In other words, all of the visibility impacts modeled with CALPUFF for the Cholla SIP Revision are relative to natural conditions, for the baseline and all control scenarios. The commenter seems to imply that including the emissions from Unit 1 is equivalent to assuming Unit 1 is part of natural conditions, which is not the case.

In modeling for the Cholla SIP Revision, ADEQ had to choose whether to include the non-BART-eligible Unit 1 emissions that do not vary across the control scenarios for Units 3 and 4. This choice is not addressed by the BART Guidelines. Some BART analyses modeled individual units separately, whereas other BART analyses modeled all units together. Unit 1 is not part of the natural background, but it is part of the facility's emissions. The overall BART determination encompasses an understanding of the visibility impacts, including the particular procedures followed in modeling them. Several considerations suggest that including all units in an analysis is a reasonable choice. Including Unit 1 in the modeling provides a more realistic estimate of overall visibility impacts for the facility as a whole, and more realistically accounts for the chemistry that Units 3 and 4 plumes experience. The Unit 1 emissions may potentially

---

[46] *Ibid.* Given the nonlinear way in which visibility impairment is perceived, the dirtier the background conditions, the less a source's emissions seem to affect it, "Using existing conditions as the baseline... would create the following paradox: the dirtier the existing air, the less likely it would be that any control is required. ... Such a reading would render the visibility provisions meaningless."

shift the chemistry and may affect the formation of visibility-affecting particulate matter from Unit 3 and 4 emissions, for example as the NO_X-derived nitrates in the three plumes compete for available ammonia in forming particulate ammonium nitrate. Another consideration, as stated by the commenter, is that including Unit 1 would tend to make the estimate of the benefit of controls on Units 3 and 4 smaller when the delta deciviews (relative to natural visibility conditions) are compared between control scenarios. This effect is expected to be small because the effect of including Unit 1 in the modeling would tend to be cancelled out when computing the benefit of controls. The benefit of controls is calculated by subtracting the visibility impacts (with controls applied) from the baseline impact; therefore, the effect of including Unit 1 in the modeling is captured in both terms. The EPA also examined this quantitatively by using the change in total emissions from excluding Unit 1 to scale the modeled estimates of visibility, and then recalculating the deciview impacts and benefits of controls. The estimated visibility benefits at Petrified Forest National Park (the Class I area most affected by emissions from Cholla) from the use of SCR or SNCR on Units 3 and 4 increased by approximately 5 percent when Unit 1 was excluded.[47] We would not consider a 5 percent increase in the visibility benefits of SCR or SNCR to justify disapproving the Cholla SIP Revision. Moreover, the modeled benefits of LNB+SOFA on Units 3 and 4 would also be higher if Unit 1 were excluded from the modeling, so the change in the incremental benefit of SCR or SNCR would be small.

In summary, although we agree with the comment that inclusion of Unit 1 in the visibility modeling decreases the modeled visibility benefits of controls on Units 3 and 4, the effect on the estimated visibility benefits of controls is small, and the BART Guidelines do not speak directly

[47] *See* "vis_impacts" tab in the spreadsheet titled "Cholla_pefo_u1_effect.xlsx," in the docket for this rulemaking.

to this question. Therefore, the EPA has determined that ADEQ has reasonably exercised its discretion to include Unit 1 in its modeling analysis.

Comment 11: One commenter recommended that the EPA consider the net (not incremental) benefit of installing SNCR on Units 3 and 4. The commenter noted that even the incremental visibility benefit of SNCR of 0.28 deciview at the Class I area most affected by Cholla (Petrified Forest National Park) compares well with the net visibility benefits of other BART determinations made by the EPA in FIPs, which ranged from 0.18 – 0.32 deciview.

Response 11: As discussed elsewhere in this final rule, with regard to incremental visibility improvement, the EPA's response to comments for promulgating the BART Guidelines stated:

> For example, a State can use the CALPUFF model to predict visibility impacts from an EGU in examining the option to control NO_X and SO_2 with SCR technology and a scrubber, respectively. A comparison of visibility impacts might then be made with a modeling scenario whereby NO_X is controlled by combustion technology. If expected visibility improvements are significantly different under one control scenario than under another, then a State may use that information, along with information on the other BART factors, to inform its BART determination.[48]

The EPA's regulations allow states to compare incremental visibility improvements between different technologies. The incremental visibility benefit is one way to compare the visibility improvements from various controls. For this BART determination, ADEQ weighed the small incremental visibility improvement against the incremental cost-effectiveness, as well as the timing and short duration of this benefit. Based on its weighing of these factors, ADEQ provided a reasoned justification for selecting LNB+SOFA as BART for Cholla Units 3 and 4.

---

[48] *See* 70 FR 39129, July 6, 2005.

We have concluded that ADEQ properly exercised its discretion in its process for weighing the small visibility improvement against the cost-effectiveness to reject SCR and SNCR.

The commenter notes that even the incremental benefit of SNCR relative to LNB/SOFA is comparable to benefits seen in previous BART assessments, at least for the Class I area with the greatest impact. Visibility is only one of the five factors in a BART assessment, and in particular must be considered together with the anticipated costs of controls. As stated previously, the EPA's role is to decide whether the state's SIP is approvable by evaluating if the Cholla SIP Revision meets the requirements of the CAA, the RHR, and the BART Guidelines. In undertaking such a review, the EPA does not usurp a state's authority but ensures that such authority is reasonably exercised. The CAA and the RHR provide flexibility to the state in deciding how the factors in the analysis are weighed. We have concluded that ADEQ properly exercised its discretion in its process for weighing the small visibility improvement against the cost-effectiveness to reject SCR and SNCR.

C. Comments on the CAA section 110(l) Analysis

Comment 12: One commenter asserted that the EPA's proposal violates CAA section 110(l) anti-backsliding requirements because it weakens the existing BART determination for Cholla. The commenter argued that the BART Reassessment is inconsistent with the EPA's long-standing interpretation of section 110(l) of the CAA as preventing implementation plan revisions that would increase overall air pollution or worsen air quality. The commenter stated that the effect of the BART Assessment would be to allow Units 3 and 4 to emit an additional 4,161 tons of NO_X per year every year between 2018 and 2024, and would result in worse visibility conditions than the existing BART determination. The commenter went on to assert that the EPA's conclusions that the BART Reassessment complies with 110(l) are not justified

because the EPA inappropriately discounted the timing of pollution reductions and the importance of promptly reducing pollution and improving visibility. The commenter argued that it is contrary to the purposes of the regional haze program and 110(l) to trade worse air quality and increased air pollution in the short term for potential benefits that may arise years from now. The commenter expressed concern that the EPA's BART Reassessment, if finalized, would set troubling precedent for the Coronado Generating Station BART Reassessment put forth for public comment by ADEQ in July 2016.

The commenter argued that the EPA's proposed approval of the Cholla SIP Revision is contrary to the requirements of CAA section 110(l). The commenter cited to case law (identified in our response below) to support its interpretation that additional air emissions or less stringent requirements occurring as a result of a SIP revision *per se* constitute a violation of CAA section 110(l). Specifically, the commenter argued that CAA section 110(l) prohibits the EPA from approving a SIP revision that is less stringent than the FIP it is replacing, stating, "This section prohibits states and EPA from revising an implementation plan if the revision would weaken the existing plan's requirements." The commenter supported its assertion that the SIP revision weakens the requirements of the existing FIP by noting that the SIP revision will allow Cholla to emit 4,161 tons per year more NO_X between 2018 and 2025 than would have been allowed pursuant to the FIP. The commenter characterized the EPA's proposed approval of the SIP revision as relying on two factors for demonstrating compliance with section 110 (l), stating:

> According to EPA, the proposal complies with section 110(*l*) because (1) there are "differences in the facts underlying" the existing BART determination and the BART "reassessment," and (2) the BART "reassessment" would "result in greater visibility improvement than the existing [BART determination] beginning in 2026, which is consistent with the long-term national goal of restoring natural visibility conditions at Class I areas." Neither justification demonstrates that the BART "reassessment" complies with section 110(*l*).

Response 12: As discussed in more detail below, the EPA disagrees with the commenter's legal interpretation that CAA section 110(l) is violated *per se* by any SIP revision that allows an increase in actual air emissions relative to the existing implementation plan. The EPA also disagrees with the characterization of our proposed section 110(l) analysis as relying only on the two factors quoted above.

The CAA section 110(l) states in relevant part: "The Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in section 7501 of this title), and any other applicable requirement of this chapter." This language does not prohibit every SIP revision that weakens the existing plan's requirements.[49] The statutory language of section 110(l) does not support the commenter's interpretation that additional air emissions or less stringent requirements occurring as a result of a SIP revision *per se* constitutes a violation of CAA section 110(l), and neither does the case law cited by the commenter.

The cases cited by the commenter fail to support the commenter's view. In *El Comité para el Bienestar de Earlimart v. U.S. EPA,* the Ninth Circuit was addressing a different issue – whether the EPA reasonably determined the level of emission reductions resulting from a particular SIP Revision. The court was not considering a SIP revision that allowed increased emissions.[50] There, the EPA had consistently determined that a SIP provision required a 12 percent decrease in emissions despite the petitioner's contrary interpretation that the provision required a 20 percent reduction. The court deferred to the EPA's reasonable interpretation, and

---

[49] *See, e.g.*, the EPA's action to approve a revision to the New Mexico SIP that addressed the BART requirement for NO_X for the San Juan Generating Station in New Mexico,79 FR 60985 at 60989, October 9, 2014, stating "Finally, contrary to the commenter's assertion, CAA section 110(l) does not prohibit a state from submitting a SIP that is less stringent than a FIP."

[50] *See* 786 F.3d 688 (9th Cir. 2015).

concluded "that the EPA did not arbitrarily and capriciously fail to consider whether the SIP Revision violated § 110(*l*) of the Act, because it reasonably interpreted the Pesticide Element as committing to a 12 percent reduction in VOC emissions from 1990 levels by 1999 in the San Joaquin Valley."[51] The case does not support the commenter's interpretation of section 110(l).

The other cases cited by the commenter also fail to support the commenter's interpretation. In *Kentucky Resource Council v. EPA*, the court upheld the EPA's approval of a SIP revision that moved a vehicle inspection and maintenance program from the SIP to a contingency measure.[52] The court examined the EPA's analysis that the SIP revision would not "interfere" with attainment and reasonable further progress (RFP). As an initial matter, the court rejected an expansive reading of section 110(l), stating:

> The statute prohibits approval of a revision that "**would** interfere" with an applicable requirement. Petitioner's reading of the phrase would substitute "could" for "would." On this point it seems fairly clear that Congress did not intend that the EPA reject each and every SIP revision that presents some remote possibility for interference.[53]

In *Kentucky Resource Council*, the SIP substituted other emissions reductions to make up for the increased emissions from moving the vehicle inspection and maintenance program to a contingency measure. The issue was whether the EPA could approve this change without requiring an attainment demonstration and the court upheld the EPA's decision that a new attainment demonstration was not required in order to show that the SIP revision would not interfere pursuant to section 110(l). Thus, the examination of whether the SIP revision would "worsen air quality" was based on whether the area – which, unlike Navajo County, was

---

[51] Id. at 697 (emphasis in original).
[52] 467 F.3d 986 (6th Circuit 2006)
[53] Id. at 994.

designated as a nonattainment area for the relevant NAAQS – would have more difficulty in attaining and maintaining the NAAQS with the SIP revision – not, as the commenter argues here, whether the SIP revision would simply result in increased emissions.[54]

The critical question under section 110(l) is not whether the SIP revision will cause an increase in actual emissions, it is whether that increase in actual emissions will interfere with attainment of the NAAQS or RFP, or if the SIP revision interferes with any other applicable requirement of the CAA. The fact that actual emissions will increase means that the EPA's analysis must include an evaluation of how that emissions increase affects attainment and RFP and other applicable requirements of the CAA.

The EPA analyzed the requirements of section 110(l) in proposing to approve the Cholla SIP revision.[55] The commenter fails to acknowledge much of the EPA's analysis. The commenter is incorrect that the EPA's proposal only relied on different facts and greater long term visibility benefits after 2026 to support approval. Rather, our proposal considered that fact that Navajo County, where the facility is located, is attaining the NAAQS for all pollutants.[56] In addition, the proposal relied on the fact that the Cholla SIP revision will result in substantially lower SO_2 and PM_{10} emissions than would have been allowed by the FIP. Finally, for NO_X emissions, the EPA's proposal stated, "While the Cholla SIP Revision will require fewer NO_X reductions than the FIP between 2018 and 2025, it will ensure that *NO_X emissions remain at or*

---

[54] The additional case law cited by the commenter, *Alabama Environmental Council v. EPA* 711 F.3d 1277 (11th Circuit 2013), which relied on the same analysis as the *Kentucky Resource Council* case, and *WildEarth Guardians v. EPA* 759 F.3d 1064 (9th Circuit 2014), where the court found that petitioners had not identified any provision of the SIP revision at issue which weakened pollution controls, are similarly unavailing.
[55] 81 FR 46852 at 46862, July 19, 2016.
[56] *Id.* at 46862.

below current levels . . . until 2025. . ." (emphasis added).[57] Based on these facts, the EPA's proposal stated:

> Thus, the Arizona SIP does not currently rely on emission limitations at Cholla to satisfy any attainment or RFP requirements. Given that the Cholla SIP Revision will result in equivalent or lower emissions of NOx, PM_{10} and SO_2 for all future years, compared to current emission levels, in an area that is designated attainment or has not yet been designated for all NAAQS, we propose to find that the Cholla SIP Revision would not interfere with any applicable requirement concerning attainment or RFP.

The comment letter does not appear to challenge the EPA's analysis that the SIP revision does not interfere with attainment or RFP for the reasons discussed above, but rather simply asserts that any increase in emissions automatically violates section 110(l).[58]

CAA section 110(l) also requires the EPA to evaluate if the SIP revision will interfere with "any other applicable requirement of this chapter." The EPA's proposal to approve the Cholla SIP Revision also carefully analyzed this requirement.[59] The commenter challenges only the EPA's proposal to find that the SIP revision complies with the requirements of the RHR. We disagree with this comment. The commenter notes that the Cholla SIP Revision is predicted to result in higher visibility impairment at Petrified Forest National Park than the FIP from 2018 to 2025. We agree. As discussed in our proposed rule, in its section 110(l) analysis, ADEQ stated that the Cholla SIP Revision would result in less visibility improvement between 2018 and 2025, but would result in greater improvements starting in 2026.[60] This does not, however, support the argument that the SIP will interfere with the requirements of the visibility program. As discussed above, we have determined that the Cholla SIP Revision meets the BART

---

[57] *Id.* at 46863.
[58] As noted previously, the commenter applies an incorrect legal standard, insisting that any SIP revision that is less stringent than the existing SIP or FIP requirement violates section 110(l).
[59] 81 FR 46852 at 46862, July 19, 2016.
[60] *Id.* at 46859.

requirements. We also proposed that the Cholla SIP Revision would not interfere with the RHR because the achievement of greater visibility improvement from the Cholla SIP Revision beginning in 2026 would be consistent with the long-term national goal of the RHR of restoring visibility conditions at Class I areas.[61] We further noted that while the Cholla SIP Revision would require fewer NO_X reductions than the FIP between 2018 and 2025, it would ensure that NO_X emission remain at or below current levels until 2025, after which time it would require a substantial reduction in NOx emissions compared to both current levels and the FIP.[62]

The commenter challenges our proposed finding that the SIP revision meets the requirements for BART. Our proposal concluded that the Cholla SIP Revision is consistent with BART, and therefore does not interfere with an applicable requirement of the CAA and the RHR.[63] For the reasons discussed in responses to other comments, ADEQ conducted an adequate BART analysis for Cholla. ADEQ considered the appropriate factors and reached a reasonable conclusion. Our analysis that the Cholla SIP Revision is approvable pursuant to CAA section 110(l) considered compliance with BART and also considered that "the Cholla SIP Revision would result in greater visibility improvement than the existing SIP and FIP requirements beginning in 2026, which is consistent with the long-term national goal of restoring natural visibility conditions at Class I areas."[64] The commenter contends that the EPA was justifying "weakening" the Arizona SIP and allowing "backsliding" based on new or different facts. That is not the case. The EPA was evaluating whether the SIP revision complied with the requirements for BART, which it does. The proposal then stated:

> Furthermore, the Cholla SIP Revision would result in greater visibility improvement than the existing SIP and FIP requirements beginning in

---

[61] *Id.* at 46862.
[62] *Id.*
[63] *Id.*
[64] *Id.*

> 2026, which is consistent with the long term national goal of restoring natural visibility conditions at Class I areas.

The commenter construes this statement incorrectly, asserting that this statement means the EPA is justifying compliance with section 110(l) by crediting later emission reductions to offset earlier emission increases. As noted earlier, section 110(l) does not prohibit approving a SIP revision that allows an increase in actual emissions provided it does not interfere with attainment of the NAAQS, RFP, or any other applicable requirement. All of those criteria have been met for the reasons discussed above. The EPA, however, noted that the substantial emissions reductions from the Cholla SIP Revision – both those occurring from the shutdown of Unit 2 in 2016 and additional NO_X reductions in 2025 – will support efforts to meet the RHR goal of reaching natural visibility in 2064.

For the reasons discussed above, the EPA disagrees with the commenter that our approval of the Cholla SIP revision is inconsistent with CAA section 110(l).

D. Other Comments

Comment 13: One commenter argued that the EPA's proposal negates the 2018 reasonable progress goals (RPGs) for Arizona. The EPA set 2018 RPGs for Arizona in its Final Phase 3 Rule that relied upon the emission reductions required by its regional haze FIP for Arizona. The commenter asserted that in delaying Cholla's compliance with its BART obligations past 2017, the BART Reassessment necessitates the development of entirely new 2018 RPGs.

Response 13: The EPA disagrees with the comment that the Cholla SIP Revision negates or otherwise adversely effects the 2018 RPGs for Arizona. The 2018 RPGs account for emission reductions expected to occur by the end of the first planning period. The compliance date for the

NO_X emission reductions, achievable with SCR, required in the FIP for Cholla was December 5, 2017. As noted in our proposed rule, the anticipated NO_X reductions in 2018 from Units 3 and 4 associated with the FIP would have been 4,763 tons more than the reductions from those units under the Cholla SIP Revision for that year. However, cumulative NO_X reductions in 2016 and 2017, from the Cholla SIP Revision, would be 6,302 tons greater than the FIP for Cholla as a result of the closure of Unit 2.[65] In addition, the closure of Unit 2 required in the Cholla SIP Revision also results in additional reductions in SO_2 and PM_{10} in 2016 and 2017.[66] Because the NO_X, SO_2, and PM_{10} reductions from the Cholla SIP Revision are greater than the reductions that would have occurred under the FIP in 2016, 2017, and 2018, and because the 2018 RPGs consider emission reductions that occur until the end of 2018, the Cholla SIP Revision aids, rather than negates, the 2018 RPGs.

As discussed elsewhere in this final rule, we disagree with the commenter's characterization that the Cholla SIP Revision is delaying the compliance deadline for BART beyond December 5, 2017. We are approving ADEQ's determination for Cholla Units 3 and 4 that BART is the use of LNB+SOFA. The emission limitations associated with this BART determination will become effective on [**INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER***].

Finally, although the Cholla SIP Revision will result in greater NO_X emissions than the FIP from Cholla Units 3 and 4 between December 5, 2017 and April 30, 2025, the requirements in the Cholla SIP Revision to permanently retire Unit 2 by April 1, 2016, combined with the

---

[65] *See* Table 8 in our proposed rule at 81 FR 46852, 46858 (July 19, 2016). We further note that the emission reductions in Table 8 associated with Unit 2 are based on the operation of Unit 2 until April 1, 2016. Because Unit 2 closed in 2015, the actual emission reductions from Unit 2 in 2016 would be lower than estimated in our proposed rule.

[66] *Id.* Tables 6 and 7.

permanent cessation of coal combustion in Units 1, 3, and 4 by April 30, 2025 and the potential conversion of those units to natural gas by July 31, 2025, will aid Arizona's RPGs more than we had originally attributed to the FIP provisions we are withdrawing in this action.

Comment 14: One commenter noted that if the EPA takes final action to approve the BART Reassessment and withdraw the FIP for Cholla, a provision in 40 CFR 52.145(f)(5)(A) that requires continuous emission monitoring systems (CEMS) for SO_2 at Cholla Units 2, 3, and 4 to be in full compliance with the requirements in 40 CFR part 75, will be duplicative because that requirement is already contained in the Cholla SIP Revision. The commenter requests that the EPA remove Cholla completely from the final version of the regulatory text that will be codified at 40 CFR 52.145.

Response 14: The EPA agrees with the comment that the Arizona RH FIP provisions should not contain any provisions related to Cholla after the EPA takes final action to withdraw the provisions in 40 CFR 52.145 that are applicable to this facility. As stated in our proposed rule, "we propose to withdraw the provisions of the Arizona Regional Haze FIP that apply to Cholla;" the retention of the reference to Cholla in 40 CFR 52.145(f)(5)(A) was inadvertent.[67] We also agree with the commenter that the condition is duplicative to the requirement already contained in the Cholla permit revision that was submitted as part of the Cholla SIP Revision. Therefore, in this final action, we are removing from 40 CFR 52.145(f)(5)(i)(A) the sentence that reads: "In addition, the owner/operator of Cholla Units 2, 3, and 4 shall calibrate, maintain, and operate a CEMS, in full compliance with the requirements found in 40 CFR part 75, to accurately measure SO_2 emissions and diluent at the inlet of the sulfur dioxide control device."

---

[67] *See* 81 FR 46852 at 46863, July 19, 2016.

The remaining provisions in 40 CFR 52.145(f)(5)(i)(A) will continue to exist and apply to the Coronado Generating Station.

III. Summary of Final Action

For the reasons described above, the EPA is taking final action to approve the Cholla SIP Revision. Because this approval fills the gap in the Arizona RH SIP that was left by the EPA's prior partial disapproval with respect to Cholla, we are also taking final action to withdraw the provisions of the FIP that applied to Cholla. This final action also constitutes our action on the petitions for reconsideration submitted by APS and PacifiCorp on the FIP.

IV. Environmental Justice Considerations

As shown in Tables 6 and 7 of the proposed rule, the Cholla SIP Revision will result in lower emissions of both PM_{10} and SO_2 compared to the emissions we had previously projected under the existing requirements beginning in 2016, with greater emission reductions from the Cholla SIP Revision occurring over time (i.e., in the periods 2017-2025, and 2026 and thereafter).[68] As shown in Table 8 of the proposed rule, the Cholla SIP Revision will result in greater NO_X emissions than the FIP between 2018 and 2025, but will achieve substantially lower NO_X emissions than the FIP in 2016, 2017, and 2026 and thereafter.[69] In addition, as noted in our proposed rule, Cholla is located in Navajo County, Arizona, which is currently designated as attainment or unclassifiable for the following NAAQS: carbon monoxide, lead, nitrogen dioxide, ozone (2008 NAAQS), $PM_{2.5}$ (1997 and 2006 NAAQS), PM_{10}, and SO_2 (1971 NAAQS). ADEQ also noted in its submittal that it has recommended a designation of attainment/unclassifiable for this area for the 2012 $PM_{2.5}$ and 2010 SO_2 standards. Therefore, this final action will not have

[68] *See* 81 FR 46852 at 46857-46858, July 18, 2016.
[69] *Id.* at 46858-46859.

potential disproportionately high and adverse human health or environmental effects on minority, low-income, or indigenous populations.

V. Incorporation by Reference

In this rule, the EPA is finalizing regulatory text that includes incorporation by reference. In accordance with the requirements of 1 CFR 51.5, the EPA is finalizing the incorporation by reference "Significant Permit Revision No. 61713 to Operating Permit No. 53399" issued by ADEQ on October 16, 2015. Therefore, these materials have been approved by the EPA for inclusion in the SIP, have been incorporated by reference by the EPA into that plan, are fully federally enforceable under sections 110 and 113 of the CAA as of the effective date of this final rule, and will be incorporated by reference by the Director of the *Federal Register* in the next update to the SIP compilation.[70] The EPA has made, and will continue to make, this document available electronically through www.regulations.gov and in hard copy at the EPA Region IX Office. Please contact the person identified in the "**FOR FURTHER INFORMATION CONTACT**" section of this preamble for more information.

VI. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at http://www2.epa.gov/laws-regulations/laws-and-executive-orders.

A. *Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review*

This action is not a significant regulatory action and was therefore not submitted to the Office of Management and Budget (OMB) for review. This rule applies to only one facility and is therefore not a rule of general applicability.

---

[70] 62 FR 27968, May 22, 1997.

B. *Paperwork Reduction Act (PRA)*

This action does not impose an information collection burden under the provisions of the PRA. Burden is defined at 5 CFR 1320.3(b).

C. *Regulatory Flexibility Act (RFA)*

I certify that this final action will not have a significant economic impact on a substantial number of small entities. This action will not impose any requirements on small entities. Firms primarily engaged in the generation, transmission, and/or distribution of electric energy for sale are small if, including affiliates, the total electric output for the preceding fiscal year did not exceed 4 million megawatt hours. The two owners of Cholla, APS and PacifiCorp, exceed this threshold.

D. *Unfunded Mandates Reform Act (UMRA)*

This action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. This action does not impose additional requirements beyond those imposed by state law. Accordingly, no additional costs to State, local, or tribal governments, or to the private sector, will result from this action.

E. *Executive Order 13132: Federalism*

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

F. *Executive Order 13175: Coordination with Indian Tribal Governments*

This action does not have tribal implications, as specified in Executive Order 13175, because the SIP is not approved to apply on any Indian reservation land or in any other area

where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction, and will not impose substantial direct costs on tribal governments or preempt tribal law. Thus, Executive Order 13175 does not apply to this action.

G. *Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks*

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of "covered regulatory action" in section 2-202 of the Executive Order. This action is not subject to Executive Order 13045 because it does not impose additional requirements beyond those imposed by state law.

H. *Executive Order 13211: Actions that Significantly Affect Energy Supply, Distribution, or Use*

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

I. *National Technology Transfer and Advancement Act (NTTAA)*

This rulemaking does not involve technical standards.

J. *Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Population*

The EPA believes the human health or environmental risk addressed by this action will not have potentially disproportionately high and adverse human health or environmental effects on minority, low-income or indigenous populations. Although this final action to approve the Cholla SIP Revision will result in greater NO_X emissions than we had previously projected to occur under the FIP it replaces over the 2018-2025 period, emissions of PM_{10} and SO_2 will be lower under the Cholla SIP Revision beginning in 2016, with greater emission reductions from

the Cholla SIP Revision occurring over time (*i.e.*, in the periods 2017-2025, and 2026 and thereafter). In addition, the Cholla SIP Revision will result in greater NO_X reductions than the FIP in 2016, 2017, and 2026 and thereafter. In addition, as noted in our proposed rule, Cholla is located in Navajo County, Arizona, which is currently designated as attainment or unclassifiable for the following NAAQS: carbon monoxide, lead, nitrogen dioxide, ozone (2008 NAAQS), $PM_{2.5}$ (1997 and 2006 NAAQS), PM_{10}, and SO_2 (1971 NAAQS). ADEQ also noted in its submittal that it has recommended a designation of attainment/unclassifiable for this area for the 2012 $PM_{2.5}$ and 2010 SO_2 standards. Therefore, this final action will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations.

K. *Congressional Review Act (CRA)*

This rule is exempt from the CRA because it is a rule of particular applicably. EPA is not required to submit a rule report regarding this action under section 801 because this is a rule of particular applicability that only applies to a single named facility.

L. *Petitions for Judicial Review*

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements (see section 307(b)(2)).

Approval and Revision of Air Plans; Arizona; Regional Haze State and Federal Implementation Plans; Reconsideration

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Particulate matter, Reporting and recordkeeping requirements, Sulfur dioxide, Visibility.

Dated: MAR 16 2017

E. Scott Pruitt,

Administrator.

Part 52, Chapter I, Title 40 of the Code of Federal Regulations is amended as follows:

PART 52 – APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

1. The authority citation for Part 52 continues to read as follows:

AUTHORITY: 42. U.S.C. 7401, *et seq*.

Subpart D – Arizona

2. Section 52.120 is amended by:

a. Adding in paragraph (d), under the table heading "EPA-Approved Source-Specific Requirements" an entry for "Cholla Power Plant" after the entry for "Arizona Electric Power Cooperative's Apache Generating Station;"

b. Adding in paragraph (e), under the table heading "Table 1 – EPA-Approved Non-Regulatory and Quasi-Regulatory Measures" an entry for "Cholla SIP Revision" after the entry for "Arizona Lead SIP Revision."

§ 52.120 Identification of plan.

* * * * *

(d) * * *

EPA-APPROVED SOURCE-SPECIFIC REQUIREMENTS

Name of source	Order/permit No.	Effective date	EPA approval date	Explanation
Arizona Department of Environmental Quality				
*******				
Cholla Power Plant	Significant Permit Revision No. 61713 to Operating Permit No. 53399	October 16, 2015	**[INSERT DATE OF PUBLICATION], [INSERT *Federal Register* CITATION]**	Permit issued by Arizona Department of Environmental Quality. Submitted on October 22, 2015.

*******				

* * * * *

(e) * * *

* * * * *

Table 1 – EPA-Approved Non-Regulatory and Quasi-Regulatory Measures
[Excluding certain resolutions and statutes, which are listed in tables 2 and 3, respectively][1]

Name of SIP provision	Applicable geographic or nonattainment area or title/subject	State submittal date	EPA approval date	Explanation
The State of Arizona Air Pollution Control Implementation Plan				
Clean Air Act Section 110(a)(2) State Implementation Plan Elements (Excluding Part D Elements and Plans)				
*******				
Arizona State Implementation Plan Revision to the Arizona Regional Haze Plan for Arizona Public Service Cholla Generating Station	Source-Specific	October 22, 2015	**[INSERT DATE OF PUBLICATION], [INSERT *Federal Register* CITATION]**	Revised source-specific BART limits for NO_X for Cholla Power Plant adopted October 22, 2015.
*******				

[1] Table 1 is divided into three parts: Clean Air Act Section 110(a)(2) State Implementation Plan Elements (excluding Part D Elements and Plans), Part D Elements and Plans (other than for the Metropolitan Phoenix or Tucson Areas), and Part D Elements and Plans for the Metropolitan Phoenix and Tucson Areas.

* * * * *

3. Section 52.145 is amended by revising paragraphs (f)(1), (2), (3), (4), (5), and (10) to read as follows:

<u>§ 52.145 Visibility protection.</u>

* * * * *

(f) * * *

(1) *Applicability*. This paragraph (f) applies to each owner/operator of the following coal-fired electricity generating units (EGUs) in the state of Arizona: Coronado Generating Station, Units 1 and 2. The provisions of this paragraph (f) are severable, and if any provision of this paragraph (f), or the application of any provision of this paragraph (f) to any owner/operator or circumstance, is held invalid, the application of such provision to other owner/operators and other circumstances, and the remainder of this paragraph (f), shall not be affected thereby.

(2) *Definitions*. Terms not defined below shall have the meaning given to them in the Clean Air Act or EPA's regulations implementing the Clean Air Act. For purposes of this paragraph (f):

ADEQ means the Arizona Department of Environmental Quality.

Boiler-operating day means a 24-hour period between 12 midnight and the following midnight during which any fuel is combusted at any time in the unit.

Coal-fired unit means any of the EGUs identified in paragraph (f)(1) of this section.

Continuous emission monitoring system or CEMS means the equipment required by 40 CFR part 75 and this paragraph (f).

Emissions limitation or emissions limit means any of the Federal Emission Limitations required by this paragraph (f) or any of the applicable PM_{10} and SO_2 emissions limits for Coronado Generating Station submitted to EPA as part of the Arizona Regional Haze SIP in a letter dated February 28, 2011, and approved into the Arizona State Implementation Plan on December 5, 2012.

Flue Gas Desulfurization System or FGD means a pollution control device that employs flue gas desulfurization technology, including an absorber utilizing lime, fly ash, or limestone slurry, for the reduction of sulfur dioxide emissions.

Group of coal-fired units means Units 1 and 2 for Coronado Generating Station.

lb means pound(s).

NO_X means nitrogen oxides expressed as nitrogen dioxide (NO_2).

Owner(s)/operator(s) means any person(s) who own(s) or who operate(s), control(s), or supervise(s) one or more of the units identified in paragraph (f)(1) of this section.

MMBtu means million British thermal unit(s).

Operating hour means any hour that fossil fuel is fired in the unit.

PM_{10} means filterable total particulate matter less than 10 microns and the condensable material in the impingers as measured by Methods 201A and 202 in 40 CFR part 51, appendix M.

Regional Administrator means the Regional Administrator of EPA Region IX or his/her authorized representative.

SO_2 means sulfur dioxide.

SO_2 removal efficiency means the quantity of SO_2 removed as calculated by the procedure in paragraph (f)(5)(iii)(B) of this section.

Unit means any of the EGUs identified in paragraph (f)(1) of this section.

Valid data means data recorded when the CEMS is not out-of-control as defined by 40 CFR part 75.

(3) *Federal emission limitations.*

(i) *NO_X emission limitations*. The owner/operator of each coal-fired unit subject to this paragraph (f) shall not emit or cause to be emitted NO_X in excess of the following limitations, in

pounds per million British thermal units (lb/MMBtu) from any coal-fired unit or group of coal-fired units. Each emission limit shall be based on a rolling 30-boiler-operating-day average, unless otherwise indicated in specific paragraphs.

Coal fired unit or group of coal-fired units	**Federal emission limitation**
Coronado Generating Station Unit 1	0.065
Coronado Generating Station Unit 2	0.080

(4) *Compliance dates.*

(i) The owners/operators of each unit subject to this paragraph (f) shall comply with the NO_X emissions limitations and other NO_X-related requirements of this paragraph (f) no later than December 5, 2017.

(ii) The owners/operators of each unit subject to this paragraph (f) shall comply with the applicable PM_{10} and SO_2 emissions limits submitted to EPA as part of the Arizona Regional Haze SIP in a letter dated February 28, 2011, and approved into the Arizona State Implementation Plan on December 5, 2012, as well as the related compliance, recordkeeping and reporting of this paragraph (f) no later than June 3, 2013.

(5) *Compliance determinations for NO_X and SO_2.*

(i) *Continuous emission monitoring system.*

(A) At all times after the compliance date specified in paragraph (f)(4) of this section, the owner/operator of each coal-fired unit shall maintain, calibrate, and operate a CEMS, in full compliance with the requirements found at 40 CFR part 75, to accurately measure SO_2, NO_X, diluent, and stack gas volumetric flow rate from each unit. All valid CEMS hourly data shall be used to determine compliance with the emission limitations for NO_X and SO_2 in paragraph (f)(3)

of this section for each unit. When the CEMS is out-of-control as defined by 40 CFR part 75, that CEMS data shall be treated as missing data, and not used to calculate the emission average. Each required CEMS must obtain valid data for at least 90 percent of the unit operating hours, on an annual basis.

(B) The owner/operator of each unit shall comply with the quality assurance procedures for CEMS found in 40 CFR part 75. In addition to these 40 CFR part 75 requirements, relative accuracy test audits shall be calculated for both the NO_X and SO_2 pounds per hour measurement and the heat input measurement. The CEMS monitoring data shall not be bias adjusted. The inlet SO_2 and diluent monitors required by this rule shall also meet the Quality Assurance/Quality Control (QA/QC) requirements of 40 CFR part 75. The testing and evaluation of the inlet monitors and the calculations of relative accuracy for lb/hr of NO_X, SO_2 and heat input shall be performed each time the 40 CFR part 75 CEMS undergo relative accuracy testing.

(ii) *Compliance determinations for NO_X.*

(A) [reserved]

(B) *Coronado Generating Station.* Compliance with the NO_X emission limits for Coronado Unit 1 and Coronado Unit 2 in paragraph (f)(3)(i) of this section shall be determined on a rolling 30 boiler-operating-day basis. The 30-boiler-operating-day rolling NO_X emission rate for each unit shall be calculated in accordance with the following procedure: Step one, sum the total pounds of NO_X emitted from the unit during the current boiler operating day and the previous twenty-nine (29) boiler operating days; Step two, sum the total heat input to the unit in MMBtu during the current boiler operating day and the previous twenty-nine (29) boiler operating days; Step three, divide the total number of pounds of NO_X emitted from that unit during the thirty (30) boiler operating days by the total heat input to the unit during the thirty (30) boiler operating

days. A new 30-boiler-operating-day rolling average NO_X emission rate shall be calculated for each new boiler operating day. Each 30-boiler-operating-day average NO_X emission rate shall include all emissions that occur during all periods within any boiler operating day, including emissions from startup, shutdown, and malfunction.

(C) If a valid NO_X pounds per hour or heat input is not available for any hour for a unit, that heat input and NO_X pounds per hour shall not be used in the calculation of the 30-day rolling average.

(iii) *Compliance determinations for SO_2.*

(A) The 30-day rolling average SO_2 emission rate for each coal-fired unit shall be calculated in accordance with the following procedure: Step one, sum the total pounds of SO_2 emitted from the unit during the current boiler-operating day and the previous twenty-nine (29) boiler-operating days; step two, sum the total heat input to the unit in MMBtu during the current boiler-operating day and the previous twenty-nine (29) boiler-operating day; and step three, divide the total number of pounds of SO_2 emitted during the thirty (30) boiler-operating days by the total heat input during the thirty (30) boiler-operating days. A new 30-day rolling average SO_2 emission rate shall be calculated for each new boiler-operating day. Each 30-day rolling average SO_2 emission rate shall include all emissions and all heat input that occur during all periods within any boiler-operating day, including emissions from startup, shutdown, and malfunction.

(B) [reserved]

(C) If a valid SO_2 pounds per hour at the outlet of the FGD system or heat input is not available for any hour for a unit, that heat input and SO_2 pounds per hour shall not be used in the calculation of the 30-day rolling average.

(D) If both a valid inlet and outlet SO_2 lb/MMBtu and an outlet value of lb/hr of SO_2 are not available for any hour, that hour shall not be included in the efficiency calculation.

* * * * *

(10) *Equipment operations.*

(i) [reserved]

(ii) *Coronado Generating Station.* At all times, including periods of startup, shutdown, and malfunction, the owner or operator of Coronado Generating Station Unit 1 and Unit 2 shall, to the extent practicable, maintain and operate each unit in a manner consistent with good air pollution control practices for minimizing emissions. The owner or operator shall continuously operate pollution control equipment at all times the unit it serves is in operation, and operate pollution control equipment in a manner consistent with technological limitations, manufacturer's specifications, and good engineering and good air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Regional Administrator which may include, but is not limited to, monitoring results, review of operating and maintenance procedures, and inspection of each unit.

* * * * *

Thu Mar 16 22:04:58 EDT 2017
Hope.Brian@epamail.epa.gov
FW: SBA Office of Advocacy's Public Comment Letter re EPA's Proposed Regulations: Procedures for Chemical Prioritization and Procedures for Chemical Risk Evaluation
To: CMS.OEX@epamail.epa.gov

Assign FYI

From: Waqar, Tayyaba [mailto:tayyaba.waqar@sba.gov]
Sent: Thursday, March 16, 2017 11:44 AM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Cc: Morris, Jeff <Morris.Jeff@epa.gov>; Schmit, Ryan <schmit.ryan@epa.gov>; Blair, Susanna <Blair.Susanna@epa.gov>
Subject: SBA Office of Advocacy's Public Comment Letter re EPA's Proposed Regulations: Procedures for Chemical Prioritization and Procedures for Chemical Risk Evaluation

Dear Administrator Pruitt:

I am writing to inform you that the SBA Office of Advocacy submitted comments to on two of EPA's notices, "Procedures for Prioritization of Chemicals for Risk Evaluation Under the Toxic Substances Control Act" and "Procedures for Chemical Risk Evaluation Under the Amended Toxic Substances Control Act" today, on March 16, 2017. Attached is a copy of the comments.

Please contact me if you have any questions.

Sincerely,

Tayyaba Waqar

Assistant Chief Counsel for Environmental Policy

SBA // Office of Advocacy

409 3rd St. SW, Washington, D.C. 20416

twaqar@sba.gov

202.205.6790 202.481.6536

U.S. SMALL BUSINESS ADMINISTRATION
OFFICE OF ADVOCACY
REGULATION • RESEARCH • OUTREACH

March 16, 2017

VIA REGULATIONS.GOV

The Honorable Scott Pruitt
Administrator
United States Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington, DC 20460-001

Re: Procedures for Prioritization of Chemicals for Risk Evaluation Under the Toxic Substances Control Act and Procedures for Chemical Risk Evaluation Under the Amended Toxic Substances Control Act; Docket Nos. EPA-HQ-OPPT-2016-0636, EPA-HQ-OPPT-2016-0654

Dear Administrator Pruitt:

The U.S. Small Business Administration's (SBA) Office of Advocacy (Advocacy) submits the following comments in response to two of the Environmental Protection Agency's (EPA) proposed rules, "Procedures for Prioritization of Chemicals for Risk Evaluation Under the Toxic Substances Control Act"[1] and "Procedures for Chemical Risk Evaluation Under the Amended Toxic Substances Control Act."[2] Small businesses have expressed concerns regarding the consideration of small businesses issues in the two processes proposed by the agency. Small businesses also expressed the need for transparency and increased communication from the agency as it moves chemicals under its pipeline approach from prioritization to risk evaluation to any potential risk management. Advocacy urges EPA to carefully address these small business concerns.

The Office of Advocacy

Congress established Advocacy under Pub. L. 94-305 to represent the views of small entities before federal agencies and Congress. Advocacy is an independent office within the U.S. Small Business Administration (SBA); as such the views expressed by Advocacy do not necessarily

[1] 82 Fed. Reg. 4825 (January 17, 2017).
[2] 82 Fed. Reg. 7562 (January 19, 2017).

reflect the views of the SBA or the Administration. The Regulatory Flexibility Act (RFA),[3] as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA),[4] gives small entities a voice in the rulemaking process. For all rules that are expected to have a significant economic impact on a substantial number of small entities, federal agencies are required by the RFA to assess the impact of the proposed rule on small entities and to consider less burdensome alternatives. EPA is required by the RFA to conduct a SBREFA panel to assess the impact of the proposed rule on small entities,[5] and to consider less burdensome alternatives.

The Small Business Jobs Act of 2010 requires agencies to give every appropriate consideration to comments provided by Advocacy.[6] The agency must include, in any explanation or discussion accompanying the final rule's publication in the Federal Register, the agency's response to these written comments submitted by Advocacy on the proposed rule, unless the agency certifies that the public interest is not served by doing so.[7]

Background

The Toxic Substances Control Act (TSCA)[8] was recently amended by the Frank R. Lautenberg Chemical Safety for the 21st Century Act.[9] Under the amended TSCA, EPA is required to establish the process and criteria for prioritizing chemical substances for risk evaluation.[10] The amended TSCA also requires the agency to establish a process to conduct the risk evaluation.[11]

On January 17, 2017, EPA proposed to establish a risk-based screening process and criteria to use in identifying chemical substances as either High-Priority Substances for risk evaluation or Low-Priority Substances that will not require a risk evaluation. Prioritization is the first step under the new TSCA in determining unreasonable risks. The proposal includes processes for identifying potential candidates for prioritization, selecting a candidate, screening that candidate against certain criteria, formally initiating the prioritization process, providing opportunities for public comment, and proposing and finalizing designations of priority.

On January 19, 2017, EPA proposed to establish a process for conducting risk evaluations to determine whether a chemical substance presents an unreasonable risk under TSCA Section 6. Risk evaluation is the second step, after a rule has been designated as a High-Priority Substances under the Prioritization process described above. The proposed components of the risk

---

[3] 5 U.S.C. §601 et seq.
[4] Pub. L. 104-121, Title II, 110 Stat. 857 (1996) (codified in various sections of 5 U.S.C. §601 et seq.).
[5] Under the RFA, small entities are defined as (1) a "small business" under section 3 of the Small Business Act and under size standards issued by the SBA in 13 C.F.C. § 121.201, or (2) a "small organization" that is a not-for-profit enterprise which is independently owned and operated and is not dominant in its field, or (3) a "small governmental jurisdiction" that is the government of a city, county, town, township, village, school district or special district with a population of less than 50,000 persons. 5 U.S.C. § 601.
[6] Small Business Jobs Act of 2010 (PL. 111-240) §1601.
[7] *Id.*
[8] 15 U.S.C. § 2601 et seq. (1976)
[9] Pub. L. 114–182 (June 22, 2016).
[10] 15 U.S.C. § 2605(b)(1).
[11] *Id.* § 2605(b)(4).

evaluation process include scope, hazard assessment, exposure assessment, risk characterization, and a risk determination. EPA is required to finalize both rules by June 2017.

EPA has certified that there is no significant economic impact on a substantial number of small entities for both rules. For the procedural rule for prioritization, EPA does not estimate any impact on small businesses because it describes the regulation impacting only its internal processes. For the procedural rule for chemical risk evaluation, EPA explains that although this rule is also primarily for internal procedures, there are minimal impacts on small entities due to the manufacturer requests for conducting risk evaluations.

Advocacy Involvement in the Rulemaking Process

Throughout the rule development process Advocacy engaged with EPA and the Office of Management and Budget (OMB) Office of Information and Regulatory Affairs (OIRA) as well as with small businesses and small business representatives. In addition, following the publication of the proposed rule, Advocacy held a roundtable on February 17, 2017 at which EPA presented its proposals.

Advocacy's comments

I. EPA Should Provide For the Specific Consideration of Small Business Input by Engaging in Small Business Outreach Early and Throughout Its Processes for Chemical Prioritization and Chemical Risk Evaluation

Advocacy commends EPA for including Advocacy in its interagency collaborations in developing the risk evaluation process for the first ten high-priority chemicals. Small business representatives, however, are concerned that the agency did not include any outreach plans to small businesses in both of the proposals to discuss the chemical uses, exposure scenarios, and data that will be used to support a high-priority designation and to develop a risk evaluation. Small business representatives noted that small businesses often have limited resources and employees that may or may not have the expertise or the time to dedicate to tracking a scientific and complicated risk evaluation. Small businesses have expressed concerns that the evaluation and the potential regulations of existing chemicals will impact downstream or end users who are often not readily aware of the presence of a chemical use in their process or product.

Recommendation

Advocacy recommends that EPA inform and engage small businesses early and throughout the process of prioritization and chemical evaluation by planning specific targeted outreach. Specifically, the agency should make concerted efforts to identify and contact small businesses that would be covered by the conditions of use of the chemical being considered for prioritization and any subsequent risk evaluation. In particular, EPA should provide background information and plan to solicit input from the relevant small businesses early in the prioritization phase and engage small businesses throughout the various stages of the risk evaluation.

II. EPA Should be Transparent and Provide Consistent and Clear Communication Regarding its Consideration of Chemicals for Prioritization and Methods of Risk Evaluation

Small business representatives have stressed the importance of transparency and communication in both the process for chemical prioritization and risk evaluation. In the procedure for chemical prioritization, small business representatives have identified the pre-prioritization phase as the most important step. EPA has stated that because of statutory time limits, it may be constrained in addressing information gap issues during the prioritization and or risk evaluation processes and therefore plans to do a significant amount of upfront data gathering and review (i.e., at the pre-prioritization stage). Small business representatives are concerned that, based on the agency's description, the remaining steps will move forward as an administrative process.

Small business representatives have criticized EPA because the agency has not completely developed nor provided a structure for pre-prioritization. For instance, they are concerned that the proposal does not provide important information about when EPA will develop a potential candidate list of chemicals being considered during pre-prioritization phase and how EPA will narrow down its selection to a candidate for high-priority. Small business representatives also noted that it is unclear how the agency will pursue to fill any information gaps to narrow down the selection of its candidate chemical. Further, small business representatives stated that the agency has not identified what it considers to be a data gap or how the agency will communicate whether there is a data gap. During Advocacy's roundtable meeting on this rule, small businesses representatives suggested listing potential candidates on a website and encouraged the agency to informally (via holding a public meeting or through an open docket) seek information and identify data gaps.

Small business representatives also noted that the agency's references (and web links) to its guidance documents for its risk evaluation processes are inadequate and fail to ensure a comprehensive understanding of EPA's approach or method that will be used to evaluate a chemical. Under the amended TSCA, EPA must develop guidance that is necessary to carry out both the prioritization and risk evaluation process.[12]

Recommendation

Advocacy recommends that EPA be transparent in its considerations for designating a high-priority chemical and methods used to conduct a risk evaluation of a chemical. Advocacy also recommends that EPA provide information to the public that is easily accessible and reliable. Advocacy further recommends that the agency issue a unified guidance document that explains the specific process and policies EPA intends to follow to prioritize chemicals and conduct chemical risk evaluations. Specifically, Advocacy recommends that the agency provide more details and other relevant information on its pre-prioritization phase to address the small business concerns above.

[12] 15 USC 2625(l).

Conclusion

Advocacy suggests that EPA include a commitment to engage, through specific outreach, with small businesses early and throughout its processes for both chemical prioritization and chemical risk evaluation. Advocacy also suggests that EPA provide transparency and consistent communication as it analyzes chemicals through its prioritization and risk evaluation processes. Advocacy urges EPA to give full consideration to the above issues and recommendations. We look forward to working with you.

If you have any questions or require additional information please contact me or Assistant Chief Counsel Tayyaba Waqar at (202) 205-6970 or by email at twaqar@sba.gov.

Sincerely,

Major Clark
Acting Chief Counsel
Office of Advocacy
U.S. Small Business Administration

Tayyaba Waqar
Assistant Chief Counsel
Office of Advocacy
U.S. Small Business Administration

Copy to: Dominic J. Mancini
Acting Administrator
Office of Information and Regulatory Affairs
Office of Management and Budget

PETITION

To: Environmental Protection Agency

Each year, under the EPA's purview, hundreds of thousands of animals are killed to test chemicals. Not only do animals suffer terribly during the testing, but animal tests have well-known scientific flaws — they are slow and expensive, hampering our ability to detect and restrict the most dangerous chemicals. Plus, differences between species mean that the results of animal tests may not be applicable to humans. **I urge you to make 21st Century Toxicity Testing a reality: update your regulations and policies to require non-animal test methods today.**

Sincerely,

Robert S Field
Elkins Park, PA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 31 2017

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Emily Monosson, Ph.D.
(b) (6)

Dear Dr. Monosson:

Thank you for your letter of March 10, 2017, to Administrator Scott Pruitt. The EPA takes very seriously our duty to ensure that pesticides can be used according to the label directions with a reasonable certainty of no harm to human health and without posing unreasonable risks to the environment.

Before pesticides can be manufactured, distributed, or sold in the United States, they first undergo a rigorous registration process. The EPA requires many different scientific studies from applicants wishing to register new pesticides. The EPA's approach to pesticide regulation is consistent with U.S. federal law, which requires a science-based process for pesticide registration. This means that the EPA will permit different amounts of different pesticides to be present, depending on the degree of hazard posed by a pesticide.

The EPA periodically reviews existing registered pesticides to ensure they can continue to be used safely, without unreasonable risks to human health and the environment. The periodic review of pesticide registrations is required by the pesticide statute – the Federal Insecticide, Fungicide, and Rodenticide Act, amended by the Food Quality Protection Act of 1996 and the Pesticide Registration Improvement Act. The registration review program is intended to make sure that, as the ability to assess risk evolves and as policies and practices change, all registered pesticides continue to meet the statutory standard of no unreasonable adverse effects. The EPA will review each registered pesticide at least every 15 years to determine whether it continues to meet the FIFRA standard for registration.

As part of registration review, the EPA assesses any changes that have occurred since the last registration decision to determine whether the pesticide still satisfies the statutory standard for registration. The EPA considers any new data or information on the pesticide and decides whether a new risk assessment must be conducted.

While we recognize the need for conventional pesticides, the EPA is also committed to encouraging the development and use of low-risk biopesticides as alternatives to conventional chemical pesticides. In 1994, the EPA created the Biopesticides and Pollution Prevention Division (BPPD) and specifically focused it on raising the profile of biopesticides and helping them get licensed. BPPD, in the Office of Chemical Safety and Pollution Prevention's Office of Pesticide Programs, is responsible for regulatory activities associated with biologically based pesticides, and is recognized as the international authority on biopesticides. In partnership with USDA and the IR-4 Specialty/Minor Crop Project at Rutgers University, the EPA supported 88 projects through the Biopesticide Demonstration Grant Program. From 2004-2010, the program invested over $1.3 million to research the efficacy of biopesticides for specialty and minor crops.

The EPA is actively working with growers and grower organizations interested in using biopesticides. Our intent is to ensure growers have the information they need to incorporate biopesticides into their pest management programs. Additionally, the EPA is implementing a biopesticide strategy that includes developing case studies on biopesticide successes, especially instances in which biopesticides have offset conventional pesticide use without negatively impacting grower costs. Part of this strategy is the promotion of integrated pest management. IPM reduces the risks from pests and pesticides for students and staff by reducing sources of food, water and shelter for pests in school buildings and grounds. An IPM program takes advantage of all pest management tactics, including the judicious use of pesticides.

I hope this letter reassures you that we will continue to evaluate pesticides with the latest research as well as continue to support the development of other strategies such as use of biopesticides and integrated pest management so that we do not repeat the mistakes of the past.

Respectfully yours,

Anne Overstreet, Chief
Communication Services Branch
Office of Pesticide Programs

Emily Monosson, PhD: Environmental Writing and Research
(b) (6) [redacted] Ronin Institute, Independent Scholar
AAAS Former Science and Engineering Fellow, USEPA, 1988

RECEIVED
2017 MAR 17 AM 11:30
OFFICE OF THE
EXECUTIVE SECRETARIAT

March 10, 2017

Dear Mr. Pruitt,

I teach an introductory environmental toxicology class to undergraduate public health majors. Each week we talk about different issues from mercury to DDT and nanomaterials. And each week, inevitably, we talk about the EPA. I am a child of the 1960s, the age when it finally dawned on us that for all the benefits of modern industrial chemicals - from plastics to mosquito-free evenings -- maybe there was a dark side to welcoming these new products into our homes and releasing billions of tons of new chemicals into our environment. We talk about what happened, or didn't, before the EPA reined in pesticides, air pollutants, water pollutants. This week's topic was DDT and the beginning of pesticide regulation.

First I need to tell you, I am not someone who eats all organic all the time. I realize that until we have better solutions, some growers will use pesticides to save their crops. And not everyone can grow (or buy,) organic. I know that not all pesticides are problematic, and more often it is over-reliance or over-use that is the problem. But I can also say this with *some* level of comfort because these pesticides are registered and regulated by our federal agencies, most importantly the EPA. Though, I have add that there is plenty of room for improvement! I've seen only a couple of applications for pesticide registration and I think even you would be surprised by the amount of missing information.

As the new administrator, I am sure you know the history of DDT, *Silent Spring* and the emergence of the EPA. But did you know that some of the first pesticide regulations (pre-EPA) focused on "immediate" harm rather than long-term? Then the EPA began to require consideration of other "adverse" effects and environmental effects. Eventually DDT and similar pesticides were banned. Even so, we still live with their legacy. A recent study has linked DDE exposure at a young age (or even possibly *in utero*) with an increased incidence of breast cancer in women.

While it would be nice to be able to say "of course, we know so much more now, that can't happen again." That there won't be another DDT. My students know that someday in their life-time there will be another DDT. Maybe it won't be a pesticide. Maybe it won't accumulate in the environment. But, some new miracle chemical or maybe even gene product will have effects that *could* -- without pressure by agencies like yours - cause the next generation to look back with disbelief, asking how could this happen?

Making new pesticides, safer pesticides is costly with all the hoops and testing that must be done. And we've learned so much from past mistakes. I haven't read much about what your intentions are towards pesticide regulation and enforcement - but the cuts proposed in EPA's budget and some of your past efforts seem like you *might* lean towards deregulation. If that is the case do you really honestly believe, that this current generation and their kids,

will be better off without federal regulation of pesticides? I would love to believe that industry would regulate itself – but they haven't a good track record for self-regulation. We can learn from past mistakes, but then we have to apply what we learn. If you have some examples that show otherwise, I would love to share them with my class.

By their very nature, there will always be things we don't know about new products. The qualities that make them useful is often their novel activity (nanochemicals are a great example of that.) Look, in the beginning, no one knew DDT would hang around for decades. Or that humans would end up with more DDT in their bodies than was permitted in the food they ate. Or that it might cause breast cancer decades later. But had producers been pushed to ask some of these questions - we might be free of these chemicals today, rather than having molecules produced over half a century ago still jiggling around in our love handles and muffin tops.

Your family as well as mine and this current generation of college kids are all better off today than in the days *before* the EPA. This is thanks in large part, to your predecessors and all those who now work for you. Let's move forward together, rather than backwards.

Best, Emily

Emily Monosson, Ph.D.

RECEIVED
2017 MAR 17 AM 11:30
OFFICE OF THE
EXECUTIVE SECRETARIAT

Kebo Oil & Gas, Inc.

607 Railroad Avenue Portland, Texas 78374 210-218-1781

March 7, 2017

TO: Mr. Scott Pruitt

Administrator, U.S. Environmental Protection Agency

Office of the Administrator 1101A

1200 Pennsylvania Ave.., N.W.

Washington, D.C. 20460

Dear Mr. Pruitt,

We are a small independent that operates about 70 active wells scattered from West Texas to the Upper Texas Gulf Coast and down to the Rio Grande Valley. We have three (3) full time employees, including myself. When we received the IRC in December, we knew that to comply, we would have to devote literally months of time to complete the ICR and do it at the expense of not doing what we are supposed to be doing (operating oil and gas wells). And after being informed of the threat of the $90,000 per day fine by the U.S. government, we became afraid of not complying. Needlessly to say, we felt we had become the enemy of our own government by being forced to submit data that in our opinion has no value.

We want to thank you for canceling this order. We hope the best for you and the Trump administration.

Sincerely,

Ken Boester

Ken Boester,PE

RECEIVED

2017 MAR 17 AM 11:29

OFFICE OF THE
EXECUTIVE SECRETARIAT

CALIFORNIA
CITY OF BELMONT

March 7, 2017

The Honorable Scott Pruitt
Environmental Protection Agency
Office of the Administrator, 1101A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Administrator Pruitt:

I write in support of the application submitted by Silicon Valley Clean Water (SVCW) for a Water Infrastructure Finance and Innovation Act (WIFIA) loan. Securing $194 million in guarantees would enable the City of Belmont to complete the SVCW Regional Environmental Sewer Conveyance Upgrade (RESCU) project, a program that is vital to the community. Having WIFIA funding will not only accelerate the completion of these wastewater and reclaimed water-related projects, it will help preserve local public health, demonstrate environmental stewardship and help fund infrastructure upgrades that allow for 100% beneficial reuse of highly-treated wastewater.

In 2008, SVCW began to rehabilitate and replace aging wastewater conveyance and treatment facilities in our service area. Many of these facilities were over 45 years old and exceeded their design life. Significant progress has been made in repairing and replacing aging infrastructure. Frequently-leaking sections of pipe were replaced and deficient treatment processes were rehabilitated. Our community rate payers have so far supported this initiative through increased sewer rates that already funded over $225 million in repairs and replacements. Unfortunately, an additional $590 million is needed over the next eight years to complete all required projects.

If access to WIFIA funding is reduced or denied, our communities face impractical rate increases. Remaining project funding would be jeopardized and would negatively affect residents, water resources, and the environment.

Obtaining $194 million in WIFIA loans would supplement the funding already derived from our communities. The completion of the vital RESCU project will help maintain the water infrastructure needed to protect our environment, public health, and water quality. We strongly support SVCW's request and urge your careful consideration. Please do not hesitate to contact us if you have any questions.

Sincerely,

Charles Stone, Mayor
City of Belmont

One Twin Pines Lane ♦ Belmont, CA 94002

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 13 2017

OFFICE OF WATER

The Honorable Charles Stone
Mayor of the City of Belmont
One Twin Pines Lane
Belmont, California 94002

Dear Mayor Stone:

Thank you for your March 7, 2017, letter to the U.S. Environmental Protection Agency regarding the Letter of Interest submitted by Silicon Valley Clean Water for a loan under the Water Infrastructure Finance and Innovation Act (WIFIA) program.

WIFIA program staff are currently evaluating all letters of interest (LOIs) submitted by prospective borrowers. Evaluations are based on each LOI's alignment with statutory and regulatory requirements as well as preliminary creditworthiness and initial feasibility reviews. The EPA anticipates selecting projects and sending invitations to apply to those projects by the end of June 2017.

Again, thank you for your letter. If you have further questions, please contact me or your staff may contact Raffael Stein in the EPA's Office of Wastewater Management at Stein.Raffael@epa.gov or (202) 564-5385.

Sincerely,

Benita Best-Wong
Acting Principal Deputy Assistant Administrator

The Honorable Charles Stone
Mayor of the City of Belmont
One Twin Pines Lane
Belmont, California 94002

Dear Mayor Stone:

Thank you for your March 7, 2017, letter to the U.S. Environmental Protection Agency regarding the Letter of Interest submitted by Silicon Valley Clean Water for a loan under the Water Infrastructure Finance and Innovation Act (WIFIA) program.

WIFIA program staff are currently evaluating all letters of interest (LOIs) submitted by prospective borrowers. Evaluations are based on each LOI's alignment with statutory and regulatory requirements as well as preliminary creditworthiness and initial feasibility reviews. The EPA anticipates selecting projects and sending invitations to apply to those projects by the end of June 2017.

Again, thank you for your letter. If you have further questions, please contact me or your staff may contact Raffael Stein in the EPA's Office of Wastewater Management at Stein.Raffael@epa.gov or (202) 564-5385.

Sincerely,

Benita Best-Wong
Acting Principal Deputy Assistant Administrator

3/10/17

Pruitt,

Like your boss, Trump, you need to accept the fact that you too are totally unqualified for the important position you occupy. This means you are not even qualified to have an opinion on environmental issues and the less you say the better off you are likely to be. Your personal opinion regarding environmental issues is meaningless. Your job is to preserve and improve the environmental health of our country and the planet for the benefit of life itself. As an under-educated Republican you too have rejected science to justify achievement of your greed for money and materialism regardless of the environmental costs. Your actions to endanger the welfare of our living planet in order to achieve your epicurean greed for money and materialism is criminal at the very least. As a lawyer with no science of engineering background your integrity is already questionable, your motives are clear and educated Americans will be prepared to deal with your hypocrisy and lies. I will do everything legally possible to bring you, Trump and Perry to your knees for being so greedy and just plain stupid.

Carl Grando
(b) (6) [redacted]

Carl

RECEIVED
2017 MAR 17 AM 11:29
OFFICE OF THE
EXECUTIVE SECRETARIAT

Cameron County Office of Community and Economic Development
20 East 5th Street, Emporium, PA 15834
Phone: (814) 486-3439 TDD: 711 Email: cclark@cameroncountypa.com

CDBG ***Housing Rehabilitation*** ***Business Loan Programs***

3/10/17

Distribution:

Cameron County Conservation District
20 East 5th Street
Emporium, PA 15834

Pennsylvania DEP
PO Box 2063
Harrisburg, PA 17105-2063

EPA Region III
1650 Arch Street (3CG00)
Philadelphia, PA 19103-2029

Environmental Protection Agency
404 M Street, S.W.
Washington, D.C. 20460

RE: CDBG Project – Sizer Run Culvert Replacement, Portage Township, Cameron County

To all concerned:

The Pennsylvania Department of Community and Economic Development requires CDBG Program grantees to follow Floodplain Management Procedures, which includes notifying your office of projects which are located in the 100 year floodplain. The above referenced project is self descriptive and is to replace the existing damaged culvert.

Attached is an estimate of the construction costs provided by J Ream Engineering Consultants, a floodplain map, and a photo depicting the existing conditions.

Comments should be submitted to the address above by 3/31/2017.

If you have any questions, please call me at (814) 486-3439.

Sincerely,

Cliff Clark
Director

RE
2017 MAR 17 AM 11:28
OFFICE OF THE
EXECUTIVE SECRETARIAT

J Ream Engineering Consultants

Civil & Environmental Engineering Services

CLIENT: Cameron County Commissioners **SHEET NO.** 1

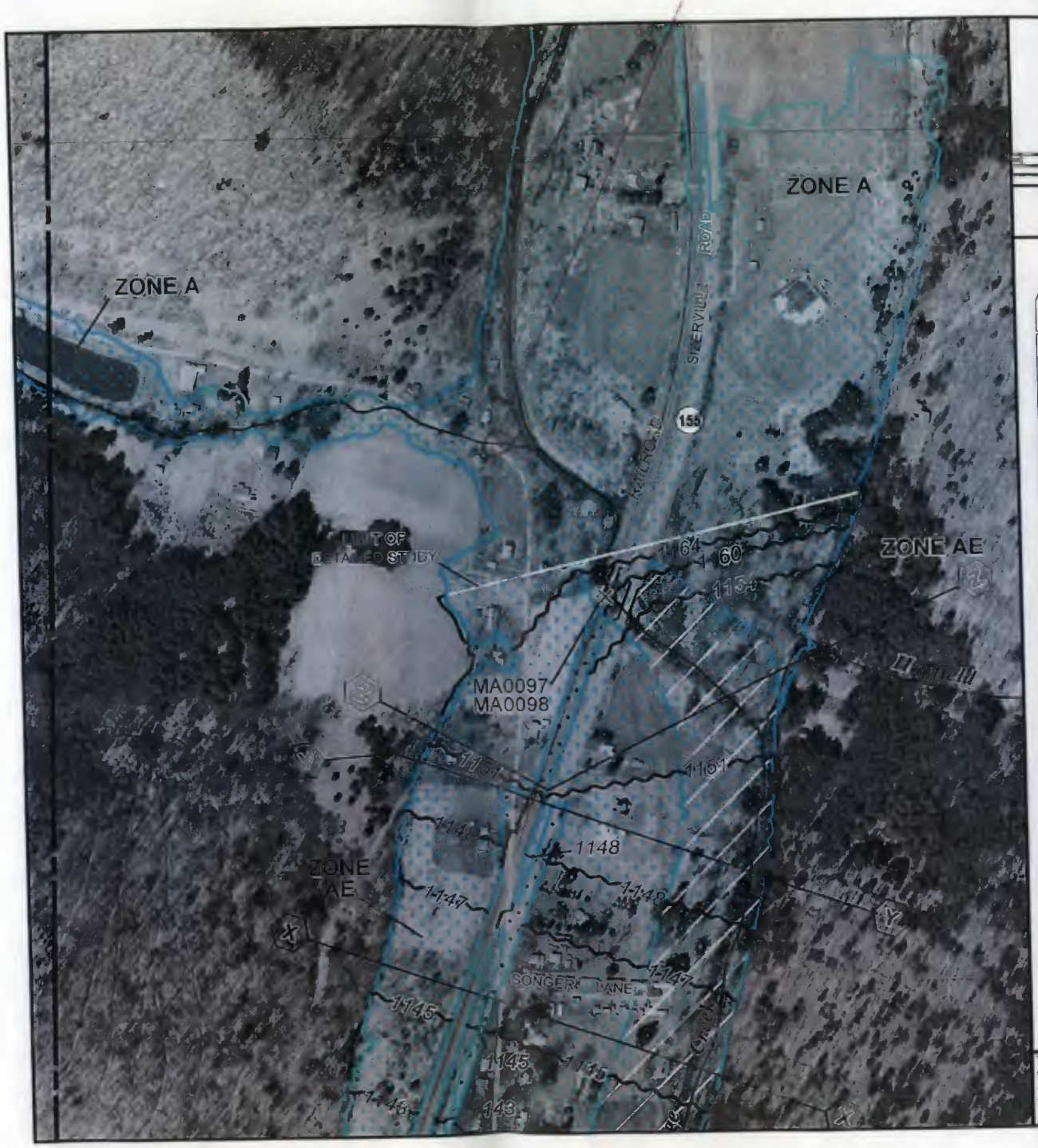
PROJECT: Sizer Run Culvert Replacement **JOB NO.**

BY JJR **DATE** 01/16/17

Sizer Run Culvert Replacement

1	Mob/Demob	LS	1	$ 1,500.00	$ 1,500.00
2	R6 Rip Rap	TON	120	$ 50.00	$ 6,000.00
3	Earthmoving	CY	200	$ 10.00	$ 2,000.00
4	103" x 71" CMP Arch Pipe	LF	40	$ 750.00	$ 30,000.00
5	6" Bituminous Coated Base Course	SY	125	$ 15.00	$ 1,875.00
6	6" 2a Subbase, Compacted	SY	125	$ 10.00	$ 1,250.00
6	E&S Controls	LS	1	$ 1,000.18	$ 1,000.18
7	Guiderail Pub 287	LF	70	$ 40.00	$ 2,800.00
8	Guiderail Posts	EA	22	$ 44.31	$ 974.82
9	Guiderail End Flare	EA	4	$ 900.00	$ 3,600.00
		Total Construction Costs			**$ 51,000.00**

Project Site



MAP SCALE 1" = 500'

0 500 1000 FEET

METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0054D

FIRM

FLOOD INSURANCE RATE MAP

CAMERON COUNTY, PENNSYLVANIA

(ALL JURISDICTIONS)

PANEL 54 OF 355

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
PORTAGE, TOWNSHIP OF	421132	0054	D
SHIPPEN TOWNSHIP OF	421103	0054	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
42023C0054D

EFFECTIVE DATE
JULY 04, 2011

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

notes

March 6, 2017

The town of Robbins, N.C. has not helped me! It is March 6, 2017.

Help!!!

Linda M. Garner

(b) (6)

(b) (6)

August 17, 2015

Town of Robbins
(Town Board and
Mayor Lonnie English)
P.O. Box 297
Robbins, North Carolina
27325

RECEIVED
2017 MAR 17 AM 11:28
OFFICE OF THE
EXECUTIVE SECRETARIAT

Dear Town Board and
Mayor Lonnie English:

I am requesting Robbins Town Manager, Jeff Sheffield, or his designee to investigate the existence of conditions described in (b) (6) (b) (6) of the General Regulations of our town. My property is located within the (b) (6) jurisdiction of Robbins. My son, James Theodore Garner, Jr.'s (Ted) property is also located in this (b) (6) jurisdiction and adjacent to my property. Ted is violating 90.01 - Section A

Ted has a automobile repair shop on his property. These cars do not apply to 94.10 town regulations because they are not customer cars and he is not licensed to sell cars or have a "junk" yard on his property.

Seven years ago I gave Ted my "home place" (b) (6) and the section of land between my property and (b) (6) Two years ago I made my will. I left the home where I live to my daughter, Leslie Darner Davis. Ted become infuriated with me because he wanted this house, also. He has "plenty" of room to build him a nice house, but as you can see he has done nothing to fix the outside of his home. It's condition also destroys the scenic beauty of (b) (6), (b) (6) leading into Robbins. Ted lives in this house with his ex-wife Tracy Luther Darner and my grandchildren (b) (6) (b) (6) He tells everyone he does not live there (b) (6) he lives in his shop.

Please, I am asking the town board to assess my concerns as soon as possible!

Sincerely,
Linda Moness Darner

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

April 13, 2017

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

NOW THE
OFFICE OF LAND AND
EMERGENCY MANAGEMENT

Jerald K. Zutz, PE
Geotek Engineering &
Testing Services, Inc.
909 East 50th Street North
Sioux Falls, SD 57104

Dear Mr. Zutz:

Thank you for your letter of March 3, 2017 to the US. Environmental Protection Agency regarding the federal records review mandated by the All Appropriate Inquiries (AAI) rule. We appreciate you alerting us to the challenges involved with completing the records review. For communities across the nation, it is vital that prospective purchasers of brownfields and environmental professionals be able to successfully conduct Phase I Environmental Site Assessments. The difficulties you experience in completing the required federal records review greatly concern us, and we hope that the following information will make the process easier in the future.

After a review of the relevant public-facing databases the EPA maintains, we managed to locate most of the information that the AAI rule mandates must be reviewed. You can find NPL sites (both current and delisted ones), non-NPL Superfund sites, and RCRA sites (generators, TSDs, and sites subject to corrective action) within a given geographic area on EPA's Envirofacts website (see https://www3.epa.gov/enviro/). Envirofacts allows a user to search for these sites using any combination of the following address information: zip code, site address, city, county, and state. You can also find NPL sites (both current and delisted) and RCRA sites subject to corrective action on EPA's Cleanups in my Community (CIMC) website (see https://www.epa.gov/cleanups/cleanups-my-community). CIMC allows you to search for sites using a variety of locational filters; if you use a street address, it also allows you to define a radius within which to display sites. ERNS information can be found at the following website: http://www.rtk.net/erns/search.php.

We have not been able to locate a list of Institutional/Engineering Controls. However, we note that the preamble language associated with 40 CFR 312.26 (see 70 FR 66093-94) says that "The final rule requires that government records and available lists for institutional and engineering controls be searched only for information on such controls at the subject property." Further, the preamble states under this subsection that "...if a particular source of information will only provide information that can more easily or readily be found elsewhere, the particular source does not have to be obtained or consulted." Therefore, entities conducting an AAI need not

does not have to be obtained or consulted." Therefore, entities conducting an AAI need not determine whether institutional/engineering controls exist at sites other than the subject property, nor must they consult an official list of such controls. Indeed, under this subsection the rule advises those conducting an AAI to consult routine "chain of title" reports, which may list institutional or engineering controls at the subject property, or alternatively may include "restrictions of record on title" that refer to such controls.

If you have additional comments or questions, please feel free to contact Patricia Overmeyer at Overmeyer.patricia@epa.gov.

Sincerely,

David R. Lloyd
Director
Office of Brownfields, Land and Revitalization

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 28 2017

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

NOW THE
OFFICE OF LAND AND
EMERGENCY MANAGEMENT

Mr. Jerald K. Zutz
Geotek Engineering & Testing Services, Inc.
909 East 50th Street North
Sioux Falls, SD 57104

Thank you for your letter of March 3, 2017, to the U.S. Environmental Protection Agency, regarding your interest in the all appropriate inquiry rule under 40 CFR 312.26.

Please allow me to introduce you to our new RCRAInfo Website. This website allows you to query the data information you need in real-time as it is reported into our database. Unfortunately, the only available data we can provide is the RCRA Generators List and the Institutional Controls/Engineering Controls data.

Please go to https://rcrainfo.epa.gov/rcrainfoweb to obtain the Generators List, please click on the 'How to use RCRAInfo Web' link under Related Information.

Exhibits 1.1 - 1.9 will provide you Generator Data.

Please return to the main page at https://rcrainfo.epa.gov/rcrainfoweb to obtain the Institutional Controls/Engineering Controls. Then click on Corrective Action. Located on the left blue section, please click on Institutional and Engineering Controls Data Link. You are then given the option of selecting National, Regional or State data by location as well as Institutional/Engineering Controls data only or with GIS coordinates.

We encourage you to visit and use our site often as we are continuing to update our data and add new features.

Sincerely,

for Tammie Toney
Program Analyst
Office of Resource Conservation and Recovery

GEOTEK ENGINEERING
& TESTING SERVICES, INC.
909 East 50th Street North
Sioux Falls, South Dakota 57104
605-335-5512 Fax 605-335-0773

RECEIVED
2017 MAR 17 AM 11:28
OFFICE OF THE
EXECUTIVE SECRETARIAT

March 3, 2017

Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Mail Code 1101A
Washington, DC 20460

Attn: Mr. Scott Pruitt

Subj: All Appropriate Inquiries (40 CFR 312)

Dear Mr. Pruitt,

Could you look into this issue? The US EPA All Appropriate Inquiry (AAI) rule under 40 CFR 312.26, among other things, requires review of federal and state government records (i.e. database listings of various EPA programs) when performing Phase I Environmental Site Assessments. By extension, review under ASTM Standard E1527-13 can be conducted to meet the AAI rule. Both AAI and ASTM E1527 have been in place for many years and are the industry standards when completing environmental property reviews to facilitate sales, lending, and insurance requirements.

In our small company, we conduct these reviews perhaps 80 or more times a year for various environmental assessment projects we are hired to do. These reviews are very important to our customers (buyers, business owners, attorneys, bankers, regulators, etc.) and help facilitate development in our community. The last several years, it has been difficult to impossible to get the EPA information. Filing a FOIA request can be done, but often it is too slow to get us the information during the time frame needed.

The AAI federal records review includes these items:

NPL Sites
Delisted NPL Sites
CERCLIS List
CERCLIS NFRAP List
RCRA CORRACTS List
RCRA non-CORRACTS TSD List
RCRA Generators List
Institutional Controls/Engineering Controls
ERNS List

The minimum search radius (around the subject property) varies between the above lists, but ranges up to one mile. To meet AAI, the database/listing information is required to be within 90 days current.

Problems we have been seeing with the federal listings the last few years include:

- No ERNS database (we are told the database has personal information that needs to be redacted),
- No institutional controls/engineering controls listing (website was apparently taken down),
- A RCRA map database with "super icons" (instead of one icon for one facility listing, one "super-icon" can represent 10's of listings, making it impossible to use the map for the purposes needed), and
- NPL/CERCLIS database unavailable, or if available, greater than 90 days old (and these listings hardly ever change).

Many states we work in put their state listings in GIS/mapped web-accessible databases that include a function to draw a search radius around the subject property. If states can do it, so can the federal government.

Can you assist in getting <u>all</u> AAI/ASTM (EPA) federal database listings into a web accessible GIS-type database, with information within 90 days current (date of data needs to be explicitly stated)?

Thank you for your assistance with this.

GEOTEK ENGINEERING & TESTING SERVICES, INC.

Jerald K. Zutz, PE
Senior Project Manager

Mar 10, 2017

Dear Administrator Pruitt,

As a 35 year Republican, scientist, and business leader... I urge you to regulate CO_2 as a pollutant and aggressively address climate change due to humans. It's the top issue of the century!

1) Support & lead the Paris Climate Accord.
2) Reduce US carbon emissions aggressively.
3) Encourage & support states who prevent climate change emissions.

Moving to a renewable energy economy is good for business, jobs, national security, and prevents costly human-caused climate change. Don't block these important changes by taking us backward to fossil fuels & coal!

Climate & human impact matter and Republicans mustn't block environmental/climate progress!

Regards, Mark Bauhaus [redacted] (b) (6)

Administrator Scott Pruitt
Administrator of the Environmental Protection Agency
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

RECEIVED
2017 MAR 17 AM 11:28
OFFICE OF THE
EXECUTIVE SECRETARIAT

Dear Administrator Scott Pruitt

My wife and I are writing to you regarding the overhead transmission lines of the HVDC power from wind farms and solar energy systems to converter stations connecting onto our Nation's Electrical Grid. The Proposed HVDC and the modernization of the Nation's electric grid system should focus on Today's State-of-the-Art Technology for Underground/Underwater High Voltage Direct Current Extruded Cable System and the State-of-the-Art Converter Stations in existing corridors and not the use of eminent domain.

1. Alternate Construction Method for the Nation's HVDC Overhead Transmission Line Systems across our Country: Install Today's State-of-the-Art Technology for Underground/Underwater High Voltage Direct Current Extruded Cable System and the State-of-the-Art Converter Stations in existing corridors. It will be both out of sight and out of mind. It will not hover over neighborhoods and communities like the Out-Dated (19th Century) Overhead Massive Transmission Line with imposing stretches of wires which are annoying with their constant humming.

Out-Dated Overhead lines

200" Wide Easement

Buried HVDC Cables

10' Wide Easement

Buried HVDC Cables

Existing Corridor

2. Negative Impact on Property Values: The existing routes of the Out-Dated Overhead HVDC transmission lines affect numerous property owners across our country. The Federal Energy Regulatory Commission (FERC) insists on using yesterday's (19th Century) technology for today, instead of today's State-of-the-Art Technology to make renewable energy installations more efficient and cost-effective without the use of private property. The overhead HVDC Transmission Lines have an enormous negative impact on property values. Proposed HVDC and the modernization of the Nation's electric grid system should focus on Today's State-of-the-Art

Technology for Underground/Underwater High Voltage Direct Current Extruded Cable System and the State-of-the-Art Converter Stations in existing corridors and not the use of eminent domain.

3. **Environmental Impacts:** The developers of these wind farms and solar energy systems call this Green Energy, but when they clear cut down our trees, which will claim over tens of thousands acres across our Nation, which will never be returned, they will have destroyed innumerable trees which take CO^2 Carbon Dioxide and convert it into O^2 Oxygen. Water quality will be affected by the loss of all these trees. Water quality will decrease and erosion will increase due to shallow top soil in most of the route. The out-dated overhead HVDC lines require 200' feet of right-of-way that is equivalent to two Interstate I-40's and 150' to 200' feet high Massive Transmission Towers.

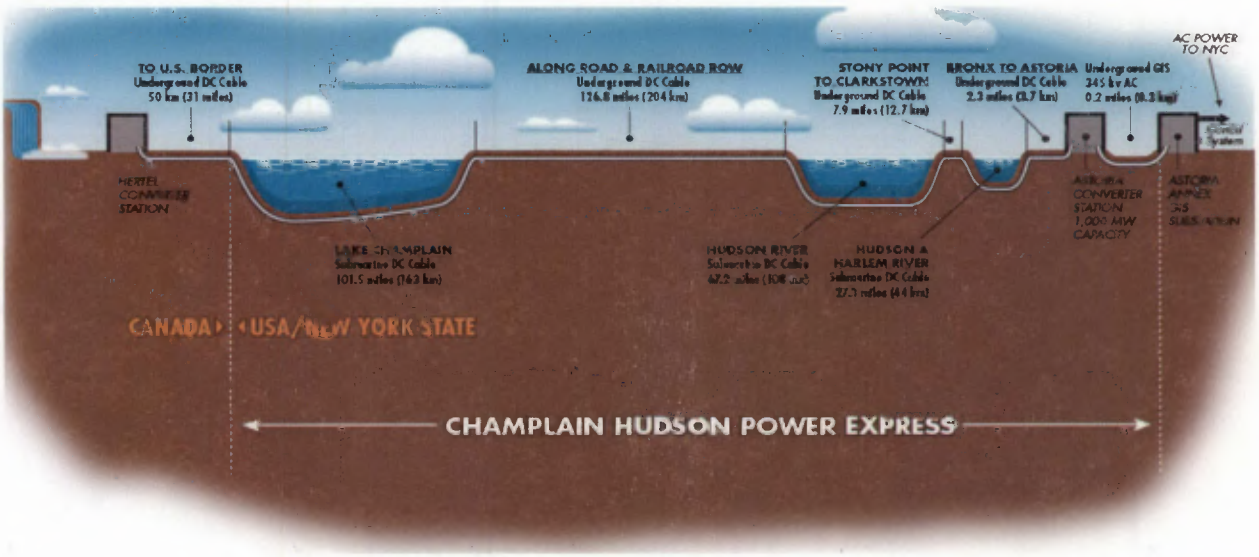
4. **Buried Underground/Underwater HVDC Extruded Cables within Existing Corridors:** With today's Underground/Underwater High Voltage Direct Current Extruded Cable System one cable can carry over 3,000 Megawatts with 600 kilovolts across our Country to the Converter Stations. If one needs more Megawatts, install another HVDC cable adjacent to it. The HVDC extruded cables can also be used underground/underwater along existing corridors: railroad right of ways, highway right-of-ways such as Interstates or State Routes, the existing Overhead Transmission Lines that come out of Nuclear Power Plants and Hydro Electric Dams.

5. **HVDC Underground Extruded Cable Technology is Superior: Reaches Distances of 935 Miles:** The cables reach distances of 1,500 kilometers or 935 miles, while keeping transmission losses under 5 percent. Electric Power Report states that, "by using underground HVDC transmission, these losses can be cut in half." Underground HVDC extruded cables can be larger in diameter because they do not have the constraint of light weight that overhead conductors have. In general, losses are estimated from the discrepancy between power produced (as reported by power plants) and power sold to the end customers; the difference between what is produced and what is consumed constitute transmission and distribution losses. Underground/underwater cable experts from around the world from ABB USA, Europacable, Prysmian Group and Siemens USA say how the HVDC underground/underwater technology has advanced in recent years and how the costs have dramatically come down for their products and installation.

6. **Underground HVDC Extruded Cable Systems in the United States WITHOUT the use of Private Property:** There are numerous examples of underground HVDC systems all over the world. The following are examples of underground HVDC systems in the United States without the use of private property. We have the technology to install the HVDC system underground. It benefits our country, the environmentalist, and the property owners. It's time this country is technologically competitive with our much smaller allied countries.

7. **The Champlain Hudson Power Express:** 333 mile-long HVDC transmission line from the U.S. - Canadian border to New York City. The HVDC transmission system consists of two 6 inch diameter cables laid underwater and underground. The route starts at the U.S. - Canadian border, travels south through Lake Champlain and along railroad and highway right of ways, and then enters the Hudson River south of Albany. The HVDC cables alternate between being buried within Lake Champlain, railroad/highway right-of-ways, and the Hudson River and not on private property. The U.S. Army Corps of Engineers has issued the permit required to install the HVDC transmission line in U.S. waters and construction has already started. Go to web site: http://www.chpexpress.com/project-details.php and click on video showing how the project is constructed and https://www.youtube.com/watch?v=63STVzjpNUo will show the installation.

The Champlain Hudson Power Express



8. **The Northeast Energy Link:** project is a 230-mile high voltage direct current (HVDC) underground transmission line, delivering renewable energy from northern and eastern Maine and eastern Canada into southern New England. The Northeast Link project focuses on a buried HVDC transmission line route utilizing existing transportation corridors without the use of private property in eastern Maine, New Hampshire, and Massachusetts.

9. **Significant Environmental Benefits with Underground HVDC Extruded Cables without the use of private property.**

* Reduced tree clearing, scarring of the existing land and visual impacts
* Safer because buried lines don't fall over in hurricanes, tornadoes, high wind or ice storms
* Eliminate costly power outages to hundreds of thousands of customers every day resulting from damage to above-ground electricity infrastructure
* Are safer because helicopters, airplanes, hot air ballrooms can't crash into them and can't electrocute people or animals.

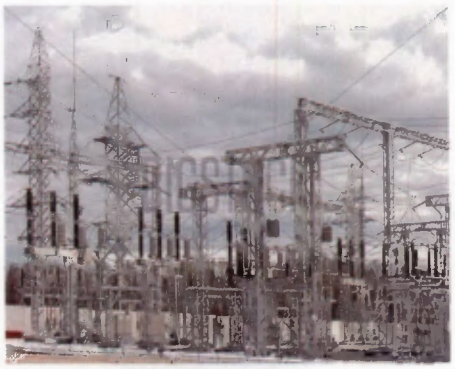
* Do not lower impacted and adjacent property values
* Buried cable right-of-ways can be used for hiking trails and bike pathways
* Have lower maintenance costs; burying electric lines is more cost-effective in the long run
* Do not kill millions of birds annually through collision
* Do not start wildfires nor are they affected by fire
* Are not affected by solar storms
* Eliminate the negative health impacts corona effect and electromagnetic fields (EMF's) to Zero
* Help prevent terror attacks to our Power Grid by eliminating the out-dated overhead transmission lines and structures. The existing structures will be far removed from daily activity and thus they will be easy targets for such terror attacks. But, underground cables will be along public roads that are used continuously used and patrolled by law enforcement and utility personnel.

10. Time we start Burying more HVDC Extruded Cable Transmission Lines: We bury sewer lines, water lines, telephone lines, electricity distribution lines, TV cable, natural gas lines, oil pipelines, gas pipelines and other petroleum product pipelines. It's time we started burying more high voltage direct current transmission lines because overhead lines are out-dated and towers are unsightly and have so many other negative impacts.

11. State-of-the-Art Technology for Converter Stations: The converter stations use State-of-the-Art semiconductor technology to deliver highly flexible, reliable and maintainable electrical power transmission. Virtually all components with the exception of transformers and heat exchangers are enclosed in a building that can be designed to blend into the surrounding architectural environment. ABB USA, Europacable and Siemens USA: State-of-the-Art Technology Converter Stations use only 3 acres of land instead of the out-dated converter stations requiring 40 to 60 acres.

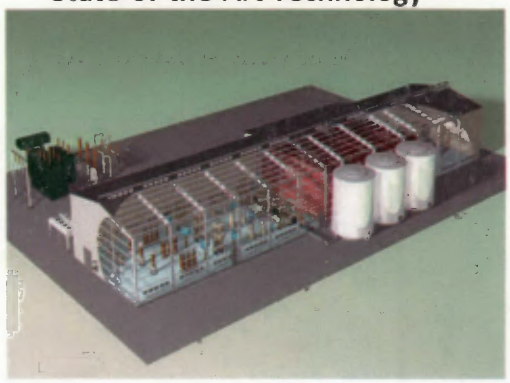
Converter Station

Out-Dated Technology



Requiring 40 to 60 Acres

State-of-the-Art Technology



3 Acres

12. EF4 Tornado Ravages; Transmission Towers, Sub-Station and Distribution Facility Destroyed

Just one example of many is Mayflower, Arkansas', 500 kV high-voltage converter station was completely destroyed by the tornado's path of destruction. More than 100 Entergy employees, along with more than 400 contractors, worked seven days a week for months to rebuild electrical facilities damaged during five distinct tornadoes on April 27, 2014 to earn a high-end rating of EF4, packing winds between 166-200 mph.

"Restoration costs of this magnitude are very fluid. Based upon Entergy Arkansas' damage assessments to date, preliminary estimates are between $90 million to $120 million for the transmission, substation and distribution rebuild before insurance proceeds," McDonald said of Entergy Arkansas.

The existing Massive Transmission Towers are rated for an EF3, just like the ones Entergy Arkansas installed along Mayflower Sub-Station as seen below. Burying the HVDC transmission lines prevent them from falling over in hurricanes, tornadoes, high wind or ice storms and eliminate costly infrastructure restoration and power outages to hundreds of thousands of customers every day resulting from damage to above-ground electricity structures.

Entergy Transmission Towers Destroyed

Mayflower Sub-Station Destroyed

13. 150' to 200' Massive Transmission Towers Structures

Excavating these massive transmission towers foundations will require jack hammering/drilling and or blasting, and may have detrimental effect on the landowners' ground water well. Many landowners rely solely on well water and have no other means for access to drinking water for their homes.

14. The All-Republican Arkansas Congressional Delegation in Washington DC sent you a letter in opposition to Plains and Easter Clean Line going across the State of Arkansas to construct their massive overhead HVDC transmission line. Clean Line wants to destroy our natural environment by cutting our trees which will claim over 12,000 acres in Arkansas and

Oklahoma, which will never be returned. They will have destroyed innumerable trees which take CO^2 Carbon Dioxide and convert it into O^2 Oxygen. Plains and Eastern Clean Line can install their HVDC System by submerging the HVDC cables along the Arkansas River from Webbers Fall Lock & Dam16, Oklahoma to the Mississippi River to just north of Memphis, Tennessee. They can connect onto the Electrical Grid at Arkansas Nuclear One or The Hydro-Power Plant in Russellville, Arkansas.

We look forward to your response and we ask you to contact us if you need additional information. Thank you for your attention to this matter.

Sincerely,

Marc Pacheco

Victoria Pacheco

Marc and Victoria Pacheco

(b) (6) 7

d

(b) (6)

Russellville, AR 72802

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 2 3 2017

OFFICE OF THE
EXECUTIVE SECRETARIAT

Mr. Marc and Mrs. Victoria Pacheco
(b) (6)

Dear Mr. and Mrs. Pacheco:

Thank you for your letter to U.S. Environmental Protection Agency. Your concerns about Overhead Transmission Lines of High Voltage District Current are outside the jurisdiction of the EPA and would be more appropriately considered by Department of Energy.

In an effort to assist you, I have forwarded your letter to Allison Markovitz, Director of the Executive Secretariat for careful consideration.

You also can contact U. S. Department of Energy directly by writing to:
U. S. Department of Energy
1000 Independence Avenue, SW, Room 7E-054
Washington, DC 20585

I hope this information is helpful. In the meantime, I thank you once more for sharing your thoughts.

Sincerely,

Stephanie N. Brown
Environmental Protection Specialist
Office of the Executive Secretariat
U.S. Environmental Protection Agency

Brown, Stephanie N.

From: Brown, Stephanie N.
Sent: Thursday, March 23, 2017 10:41 AM
To: 'DOEExecSec@hq.doe.gov'
Subject: Transfer Letter
Attachments: AX-17-000-6483.pdf

Dear Ms. Markovitz:

The attached correspondence was mailed to the U.S. Environmental Protection Agency. The citizen has concerns about Overhead Transmission Lines of High Voltage District Current from wind farms and solar energy systems, which is outside the jurisdiction of the EPA and would be more appropriately considered by Department of Energy. I have informed the citizen that their letter has been transferred to you.

If you need the original correspondence, please let me know within 14 calendar days, after which it will be destroyed.

Thank you for responding to this citizen.

Sincerely,

Stephanie N. Brown
Environmental Protection Specialist
Office of the Executive Secretariat
U.S. Environmental Protection Agency
(202) 564-1192

Mon Mar 20 09:51:15 EDT 2017
Hope.Brian@epamail.epa.gov
FW: Petition for Reconsideration of EPA Action and Request for Stay, National Emission Standards for Hazardous Air Pollutants: Ferroalloys Production, 82 Fed. Reg. 5401 (January 18, 2017)
To: CMS.OEX@epamail.epa.gov

For the Daily Reading File

Full hard copy to Ryan Jackson

From: John Rego [mailto:jrego@JonesDay.com]
Sent: Friday, March 17, 2017 7:43 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Cc: Averback, Jonathan <Averback.Jonathan@epa.gov>; Erica Zilioli <Erica.Zilioli@usdoj.gov>
Subject: Petition for Reconsideration of EPA Action and Request for Stay, National Emission Standards for Hazardous Air Pollutants: Ferroalloys Production, 82 Fed. Reg. 5401 (January 18, 2017)

Dear Administrator Pruitt:

On behalf of Eramet Marietta Inc., please accept the attached petition for reconsideration of U.S. EPA's final action entitled, "National Emission Standards for Hazardous Air Pollutants: Ferroalloys Production," 82 Fed. Reg. 5401 (January 18, 2017). A hard copy of the attached petition will follow via overnight delivery.

Respectfully submitted,

John A. Rego
JONES DAY® - One Firm Worldwide
901 Lakeside Avenue
Cleveland, Ohio 44114-1190
Office +1.216.586.7542

Fax +1.216.579.1212
jrego@jonesday.com

Counsel for Petitioner Eramet Marietta Inc.

==========
This e-mail (including any attachments) may contain information that is private, confidential, or protected by attorney-client or other privilege. If you received this e-mail in error, please delete it from your system without copying it and notify sender by reply e-mail, so that our records can be corrected.
==========

JONES DAY

NORTH POINT • 901 LAKESIDE AVENUE • CLEVELAND, OHIO 44114.1190
TELEPHONE: +1.216.586.3939 • FACSIMILE: +1.216.579.0212

Direct Number: (216) 586-7542
jrego@JonesDay.com

JP858259:kah/1500432393
139357-600002

March 17, 2017

VIA OVERNIGHT MAIL AND EMAIL

Honorable Scott Pruitt, Administrator
Environmental Protection Agency
USEPA Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
Room 3000
Washington, DC 20004
Pruitt.Scott@EPA.gov

Re: Petition for Reconsideration of EPA Action and Request for Stay, National Emission Standards for Hazardous Air Pollutants: Ferroalloys Production, 82 Fed. Reg. 5401 (January 18, 2017)

Dear Administrator Pruitt:

Pursuant to Section 307(d)(7)(B) of the Clean Air Act, 42 U.S.C. §7607(d)(7)(B), and Section 4(e) of the Administrative Procedure Act, 5 U.S.C. §533(e), Eramet Marietta Inc. hereby petitions for reconsideration regarding the above-referenced final action, hereinafter referred to as the "Ferroalloys NESHAP Reconsideration," and for a stay of the effective date of that action for up to three months, pending completion of the reconsideration proceeding. The Ferroalloys NESHAP Reconsideration amends the Administrator's final action entitled "National Emission Standards for Hazardous Air Pollutants: Ferroalloys Production," 80 Fed. Reg. (June 30, 2015), hereinafter referred to as the "Ferroalloys NESHAP."

Since publication of the Ferroalloys NESHAP Reconsideration, but within the time specified for judicial review, grounds for additional objections of central relevance to this rulemaking have arisen. In particular, EMI objects to, and hereby seeks reconsideration of the final requirement to demonstrate compliance with shop building opacity standards using digital camera opacity technique ("DCOT") in accordance with ASTM D7520-13 (40 C.F.R. §63.1625(d)), as promulgated in the Ferroalloys NESHAP, as amended by the Ferroalloys NESHAP Reconsideration.

I. Background

EPA has long recognized that the emissions standards the Agency promulgates under the Clean Air Act are only credible and effective when they are enforced via reliable, accurate compliance test methods. To that end, the Agency has established stringent processes through which potential test methods will be evaluated and approved for use by regulated facilities to demonstrate legal compliance. EPA has employed that process to codify a set of approved test

methods that facilities throughout the United States may use to demonstrate compliance with applicable standards, including EPA Method 9 to demonstrate compliance with visible emissions (or "opacity") standards. As a result, Method 9 training and testing is widely accessible to the regulated community through a broad network of EPA-approved vendors.

The Ferroalloys NESHAP does not amend in any way the existing EPA policies and regulations that underlie Method 9's ongoing use by thousands of non-ferroalloy facilities – as well as by state and local regulators – throughout the United States. Nor has EPA ever suggested that Method 9 would be an unreliable method for measuring compliance with the opacity standards established in the Ferroalloys NESHAP.

As originally proposed by EPA, and as supplementally proposed by EPA, the Ferroalloys NESHAP provided that the ferroalloys facilities could measure compliance with fugitive particulate opacity standards using either the longstanding EPA Method 9 or DCOT, provided that facilities obtained certifications of their DCOT systems in accordance with the ASTM standard. However, in the final Ferroalloys NESHAP, EPA unexpectedly eliminated the option of using EPA Method 9 and instead required the use of DCOT to measure fugitive opacity. Given the lack of advance notice that EPA was considering the unprecedented step of denying a single industry the right to use an established EPA test method currently in use at 1000s of facilities across the United States (including EMI and Felman Production, the other company covered by the Ferroalloys NESHAP), both EMI and Felman filed petitions for reconsideration with Administrator Gina McCarthy.

Administrator McCarthy granted reconsideration on DCOT and several other issues on July 12, 2016, *see* 81 Fed. Reg. 45089, and established a 45-day public comment period ending on August 26, 2016. EMI submitted timely comments to the Administrator via regulations.gov. *See* Docket ID EPA-HQ-OAR-2010-0895-0326. Those comments requested that EPA reinstate EMI's right to use Method 9 to demonstrate compliance with the Ferroalloys NESHAP and raised the following objections:

- DCOT is scientifically unproven for the use specified in the Ferroalloys NESHAP
  - The method has not been demonstrated to reliably measure fugitive emissions from long passive roof monitors, like those at EMI, as opposed to stack emissions
  - The method has not been demonstrated to reliably measure fugitive emissions over the course of a 90-minute furnace cycle, like those that occur at EMI
  - EPA relied on invalid statistical comparisons of DCOT to Method 9 to conclude that DCOT was capable of accurately measuring EMI's fugitive emissions

- EPA did not adopt DCOT through proper procedures
  - EPA did not follow its own procedures for evaluating and approving alternate compliance test methods
  - EPA failed to account for the upward bias of DCOT opacity measurements
  - EPA failed to properly consider the disproportionate costs of DCOT testing versus EPA Method 9 testing
- EPA should not have used its regulatory power to subject EMI to the monopolistic pricing power of a sole source vendor as a condition of remaining in operation
  - DCOT will cost much more than Method 9 to use
  - It was unfair and unlawful for EPA to deny a single industry the right to use EPA Method 9

The Ohio Environmental Protection Agency and the representatives of a broad cross-section of U.S. industry also filed comments objecting to EPA's requirement that DCOT be used as the sole method of demonstrating compliance with the Ferroalloys NESHAP, including the American Iron and Steel Institute, the American Petroleum Institute, the Portland Cement Association, and the Utility Air Regulatory Group, and Felman Production. These commenters provided additional information supporting the conclusion that DCOT has not been technically demonstrated to provide reliable measurements of fugitive emissions from roof vents, that EPA did not properly evaluate DCOT before requiring its use, that it would DCOT far more costly to implement than Method 9, and that EPA should not require the use of a test method available from a single commercial vendor who can exercise monopolistic pricing practices. These commenters uniformly urged Administrator McCarthy to reinstate the option of using Method 9 to demonstrate compliance with the Ferroalloys NESHAP in addition to DCOT.

On January 18, 2017, Administrator McCarthy issued her final action on EMI's petition for reconsideration. *See* 82 Fed. Reg. 5401. In that action, the Administrator denied EMI's request for the right to use EPA Method 9 to demonstrate compliance with the Ferroalloys NESHAP. *Id.* at 5405. EPA amended the DCOT provision in the Ferroalloys NESHAP slightly to reference the 2016 version of the applicable ASTM standard. Id. at 5407-08.

In EPA's "Summary of Public Comments and Responses on the Proposed Reconsideration," ID: EPA-HQ-OAR-2010-0895-0341, EPA expanded on the reasoning presented in its Federal Register notice. In response to comments from EMI and others that use of fixed DCOT cameras to measure fugitive emissions could be unreliable due to the need to account for changes in sun angle and wind direction, EPA agreed with the validity of such concerns, but considered them addressed by the option of mounting the DCOT camera on a

tripod and moving the camera as necessary to achieve the proper orientation to the fugitive plume. *See id.* at 14 (sun angle) and 21 (wind direction).

In response comments from EMI and others that DCOT would be much more expensive than use of Method 9 and that the sole-source DCOT vendor could use is EPA-granted monopoly to charge whatever the vendor wished, EPA responded in part that it considered the costs of DCOT reasonable, based on estimates provided by the vendor and costs posted on the vendor's website. *See id.* at 25. Moreover, EPA noted that a covered facility "also has the option [of] doing the opacity determinations in-house by having one of their employees trained and certified to be a DCOT analyst." *Id.; see also id.* at 18 (same).

II. Grounds for Reconsideration

Since the Reconsideration Decision was published, EMI has become aware of additional information that casts doubt on the Administrator's stated reasoning in support of the Ferroalloys NESHAP Reconsideration. First, EMI has been in contact with the sole DCOT vendor, seeking a proposal for the implementation of DCOT at EMI's facility as necessary to demonstrate compliance with the opacity standards in the Ferroalloys NESHAP. The vendor's responsive communications with EMI have demonstrated circumstances are not as EPA believed when it issued the Ferroalloys NESHAP Reconsideration.

Second, EMI has become aware of a consent decree lodged on March 1, 2017 by the United States in the federal district court for Eastern District of Wisconsin in an enforcement case involving Maynard Steel Casting Company. That decree, which is in response to the respondent's violations of opacity standards established pursuant to the Clean Air Act, includes the use of the same sole-source DCOT technology required in the Ferroalloys NESHAP, but explicitly recognizes the risk of technological difficulties and authorizes the respondent to conduct required opacity monitoring using Method 9 in lieu of DCOT.

A. Vendor Communications

As noted above, EMI has been in contact with the DCOT vendor to whom EPA granted a monopoly to be the exclusive source of opacity compliance testing required by the Ferroalloys NESHAP. The vendor's responsive communications with EMI cast doubt on whether DCOT can be successfully and cost-effectively implemented at EMI. In particular, these communications indicate:

1. The sole-source DCOT vendor does not currently have an ASTM-certified product capable of generating the data required by the Ferroalloys NESHAP;

2. The sole-source vendor will not provide a proposal to EMI unless EMI first hires the vendor as a "consultant" and commits to pay well over $10,000;

3. The sole-source vendor has already abandoned the pricing relied upon by EPA and now sets pricing on a case-by-case basis;

4. The sole-source vendor does not consider moveable tripod-mounted DCOT cameras a viable option;

5. Contrary to EPA's belief, the sole-source vendor will not license a customer to analyze its own images using the vendor's software; and

6. The sole-source vendor may not provide the certification required under the Ferroalloys NESHAP.

Each of these factors undermines EPA's conclusion that DCOT should be the sole available option for demonstrating compliance with the opacity standards in the Ferroalloys NESHAP. These issues relate directly to EMI's ability to rely on DCOT and, therefore, are of central relevance to the Ferroalloys NESHAP rulemaking. Each of these issues is addressed in greater detail below.

1. The sole-source DCOT vendor does not currently have an ASTM-certified product capable of generating the data required by the Ferroalloys NESHAP.

In response to EMI's request for a proposal ("RFP") from the sole-source DCOT vendor, which is attached hereto as Exhibit 1, the vendor has corresponded with EMI by email. That dialogue is attached hereto as Exhibit 2. Over the course of that dialogue, the vendor informed EMI that he does not currently have an ASTM-certified product that will comply with the Ferroalloys NESHAP, because each customer's service must be custom-built to provide the necessary output:

> VT LLC's product, DOCS II is an ASTM D7520-16 certified DCOT as required in the Ferro Alloy NESHAP. The specific application of DOCS II to the Ferro Alloy NESHAP requirements is custom to the facilities that require compliance to the Ferro Alloy NESHAP.VT LLC does not sell a product specifically for the Ferro Alloy NESHAP as your RFP implies. Thus the modifications required to automate the requirements of the Ferro Alloy NESHAP must be created for the specific customers.

Exhibit 2 at 6. Moreover, the vendor has expressed uncertainty regarding the opacity measurements required by the Ferroalloys NESHAP and how they would be averaged to meet the rule's opacity standards:

> It seems to me, the step of "Pouring the molten metal into casting beds" should be excluded from the "Furnace Cycle" if possible, in defining the length of the observations in CF1 and CF2. It appears the MOR is fixed at 60 min. but from when? Further, the definition of an i) "Individual Opacity Reading" and the selection of the ii) "24 Consecutive Images", particularly with respect to iv) whereby any 2 consecutive "Individual Opacity Readings" shall not be more that 20% needs detail. The difference between a rolling 24, versus a specific 24, when compared consecutively is significant. Both your RFP and the NESHAP are silent on this requirement. This is the level of logic that is required, quoted previously as a long lead time item. This logic is also likely the greatest overall project cost, and time driver. However, this is also the logic that will define pass or fail. Thus critical to get it correctly defined and sustainable.

Id. at 10; see also id. at 7 ("At the moment nobody is paying me to interpret this NESHAP, for implementation and automation at a facility. However without this definition, software cannot be written to generate the reports.") In contrast to EPA's statements in the Ferroalloys NESHAP and the Reconsideration Decision, which implicitly assume that the sole-source vendor and the vendor's software were capable of collecting and analyzing the opacity data necessary to demonstrate compliance, the vendor himself has indicated that he is unsure of what is required and does not explain how that uncertainty will be eliminated, but does label the issue "a long lead time item."

Based on the this information, the Administrator should reconsider his assumption that the DCOT technology has been perfected to the degree necessary to provide a reliable alternative to Method 9 for demonstrating compliance with the Ferroalloys NESHAP.

2. The sole-source vendor will not provide a proposal to EMI unless EMI first hires the vendor as a "consultant" and commits to pay well over $10,000.

In comments submitted in connection with the Reconsideration Decision process, EMI and numerous other commenters, expressed concern that EPA was conferring a legal monopoly on the sole-source DCOT vendor by requiring ferroalloys producers to contract with that vendor at whatever cost the vendor chose to impose as a condition of remaining in operation. EPA dismissed these concerns as unfounded. However, in response to EMI's RFP, the sole-source vendor informed EMI that he would require a multiday visit to EMI before he would supply a proposal and that EMI would be required to fund that visit by hiring him as a "consultant" and agreeing to pay $8,500, plus his expenses (with a 10% markup), plus $1000 per day for an unknown number of "office" days:

> Please contract me to come review your facility with you.
>
> * * * *
>
> I charge $500/travel day in continental US, $2500/day on site, $1000/day office time, plus expenses @ actual + 10%, due upon receipt.
>
> * * * *
>
> Consulting fees are time based and non-refundable. You would know how long we will need on site to observe the Furnace and MOR cycles enough to perform the definitions stipulated. I would hope we could do in three days and I would hope that could be next week.

Exhibit 2 at 10-11. The vendor later expanded this estimate from a three-day visit to a five-day visit. Id. at 9. "Each installation of DOCS II is specific to the customer's needs and the definition of the customer's needs is the effort you are asking me to do. VT LLC will gladly perform this definition task, as we are very qualified to do it, but I do not do this work for free." Id. at 6.

The vendor's demand is clear demonstration that the sole-source vendor intends to use his government-conferred monopoly status to extract fees far in excess of what would be available in a competitive market, such as the market for Method 9 training and testing. Since such services are available from a wide range of vendors, no Method 9 vendor would ever consider demanding an upfront, non-refundable consulting fee (much less a fee that would $10,000) just to provide a "free" proposal.

Clearly, the sole-source DCOT vendor realizes that he will not be forced to compete for EMI's business, and therefore intends to maximize revenue. Moreover, if it will cost EMI over $10,000 just to find out how much DCOT will cost, actual services and technology can be expected to cost many times more. As EMI could certify two employees to conduct Method 9 readings to meet the opacity testing requirements of the Ferroalloys NESHAP for less than the cost of obtaining the vendor's proposal, the Administrator should reconsider his conclusion that DCOT is a cost-effective option for monitoring opacity.

3. The sole-source vendor has already abandoned the pricing relied upon by EPA and now sets pricing on a case-by-case basis.

The vendor has also abandoned the very pricing information that EPA used to conclude that the cost of implementing DCOT would be reasonable. See Exhibit 2 at 3 ("Note old pricing was quoted by rule"), id. at 4 ("VT LLC no longer prices in this manor [*i.e.*, price list posted on

website], picture variation is too high. All DOCS II customers now have site surveys that establish the picture quality, repeatability, output, cycle timing"). As predicted by EMI and other commenters, once granted a monopoly, the sole-source vendor would lose all need to provide transparent, competitive pricing. The vendor's new case-by-case approach eliminates all of the constraints that the competitive market for Method 9 training and testing provides. As it is now clear that the pricing assumptions relied upon by EPA to assure the public that DCOT would be reasonably priced have disappeared, the Administrator should reconsider his conclusion that DCOT is a cost-effective option for monitoring opacity.

4. The sole-source vendor does not consider moveable tripod-mounted DCOT cameras a viable option.

While EPA expressly relied upon the ability to reposition DCOT cameras in concluding that DCOT could be as flexible as a Method 9 reader in responding to variations in sun angle and plume orientation, the sole-source vendor now says, "I personally do not believe this approach is an option today," Exhibit 2 at 5, because he considers not all DCOT operators are capable of obtaining good images using a moveable camera. *See id.* Since EPA acknowledged the necessity of such operational flexibility in concluding that DCOT could equal Method 9 in reliability, the Administrator must reconsider that conclusion in light of the vendor's stated experience.

5. Contrary to EPA's belief, the sole-source vendor will not license a customer to analyze its own images using the vendor's software.

Contrary to EPA's repeated assertions that customers need not be dependent upon the sole-source vendor, but instead will have the option of having in-house personnel utilize the sole-source vendor's software to conduct the necessary opacity analyses, the vendor declined to provide EMI with this option, when requested. Instead, he expressed concern that such a user would not provide comparable quality, concluding: "We would have to develop a way to assure quality. I am interested in exploring this option, but not for free." Exhibit 2 at 4.

Thus, the option assumed by EPA is not currently available to EMI and, given multiple lines of evidence that the sole-source vendor intends to use his EPA-conferred monopoly to extract maximum revenue, it certainly can't be assumed that such an option will ever be offered at a reasonable price. Accordingly, there is yet more reason for the Administrator to reconsider EPA's prior conclusion that DCOT will be provided at reasonable cost to the regulated parties that will be captive customers.

6. The sole-source vendor may not provide the certification required under the Ferroalloys NESHAP.

The Ferroalloys NESHAP requires that the DCOT testing at EMI be validated and certified in accordance with 63 C.F.R. § 1625(b)(9). In addition, the Ferroalloys NESHAP

makes clear that such EPA's selection of DCOT and EPA's requirement that EMI use the method to demonstrate compliance "does not provide or imply certification or validation" of the vendor's technology; such certification is the responsibility of the EMI, the DCOT operator (who would be an EMI employee), or the vendor. *Id.* Since EMI does not believe the DCOT method is reliable and, in any event, lacks the technical expertise to validate the technology, Section 1.02(F) of EMI's RPF requested that the sole-source vendor's proposal "provide all documentation to guaranty that the supplied DCOT equipment meet all criteria in NESHAP, '§ 63.1625 (b) test methods (9)'. . . ." Exhibit 1 at 4.

The vendor's response indicates that he does not intend to offer any warrantees with respect to his technology:

> The idea of a warrantee of all this for fitness of a particular purpose? My license agreement, as does every software license agreement I have ever signed, specifically disclaims warrantee for merchantability and fitness for any particular purpose. I believe the international standard of operations specifically disclaims warrantee for merchantability or fitness for any specific purpose, unless the purpose is very specifically and narrowly defined. The ASTM D7520 requirement is IEEE 12207 like, not peer review.

Exhibit 2 at 11. The net result of the vendor's unwillingness to provide such assurances is that the two parties that claim DCOT will provide reliable results – EPA and the vendor to whom EPA has granted a monopoly – have expressly refused to accept responsibility for this claim, and the one party that does not believe that DCOT will be reliable – EMI – would be forced to provide such certification just to remain in operation.

In light of the vendor's refusal to stand behind its suitability for meeting the Ferroalloys NESHAP's requirements, the Administrator should reconsider his conclusion that DCOT will provide reliable results under the Ferroalloys NESHAP.

B. United States v. Maynard Steel Casting Company (E.D. Wisc.)

On March 1, 2017, the United States filed a complaint and proposed consent decree (Exhibit 3) with the U.S. District Court for the Eastern District of Wisconsin. The proposed decree is currently undergoing public review and comment. Paragraph I.A. of the decree alleges that the respondent had violated the Clean Air Act by operating four electric arc furnaces at its steel foundry "without installing and maintaining pollution control equipment adequate to control emissions of particulate matter within the limits of its federally-enforceable state permit."

Section 1.1 of Appendix C to the consent decree (Exhibit 4), describes the respondent's main shop building, including a rooftop "penthouse" that runs along the centerline of the roof for the length of the building. The penthouse appears similar in configuration to the open roof vents

that run along the centerline axis of EMI's shop buildings, with one significant difference: the sides of the "penthouse" are covered on both sides by hinged window panels, while EMI's roof vents are completely open on both sides. Thus, while fugitive particulate emissions from the "penthouse" will be localized at window panels that are partially open, damaged or misaligned, emissions from the EMI roof vents are unrestricted along their entire length. As EMI has pointed out to EPA in the past, the locations from which visible emissions will exit the open roof vents is highly variable, based on changing external wind and weather conditions, as well changing thermodynamic effects within the shop building.

The consent decree provides for the respondent to conduct fugitive opacity measurements using the same DCOT technology required under the Ferroalloys NESHAP (see Exhibit 3 at ¶¶ 45-49 and Exhibit 4 at § 2.1). However, in contrast to EPA's approach to DCOT in the Ferroalloys NESHAP rulemaking, including the Ferroalloys NESHAP Reconsideration, in the Maynard Steel consent decree, EPA (1) repeatedly acknowledges and provides accommodations for the risk of "unforeseen equipment difficulties that prohibit obtaining a valid opacity observation (*e.g.*, hardware/software breakdown, challenges with processing captured images, etc.)," (Exhibit 3 at ¶ 45; see also ¶¶ 47, 48), and (2) expressly provides the respondent with the option of using Method 9 in lieu of DCOT (see Exhibit 4 at § 2.2). "Rather than use the primary approach for daytime opacity monitoring, as detailed in Section 2.1 of this Protocol, Maynard may use EPA Method 9 (40 C.F.R., Appendix A-4), which relies on direct visual observation by a qualified observer." *Id.*

Despite the obvious similarities between the operations addressed in the Maynard Steel consent decree and the Ferroalloys NESHAP, EMI understands that enforcement orders and rulemakings are different legal processes, with different legal significance and focused on different policy objectives. However, the functionality and reliability of a specific test method, in this case DCOT, that is common to both actions is a technical constant and does not change depending upon why the method is being used at a particular site.

In the proposed consent decree, EPA acknowledges the implementation uncertainties raised by EPA and other commenters in the Ferroalloys NESHAP rulemaking process. In the proposed consent decree, EPA provides the alleged violator with the flexibility to use Method 9 in lieu of DCOT, as EMI and Felman Production requested in the Ferroalloys NESHAP rulemaking process. In light of the Agency's inconsistent approach to the technical reliability of DCOT, the Administrator should reconsider the Ferroalloys NESHAP Reconsideration's conclusion that ferroalloys producers should be denied the right to use Method 9 to demonstrate compliance with fugitive opacity standards.

Moreover, the Administrator should explicitly address the timing of EPA's release of the proposed consent decree in relation to the timing of its action on prior petitions for reconsideration of the DCOT requirement in the Ferroalloys NESHAP rulemaking. The Ferroalloys NESHAP Reconsideration public comment period ran from July 12 through August 26, 2016, almost exactly as EPA was executing the proposed consent decree between July 11 and

August 24, 2016. However, the United States did not publicly disclose the consent decree until March 1, 2017, long after both the public comment period and EPA's release of the Ferroalloys NESHAP Reconsideration.

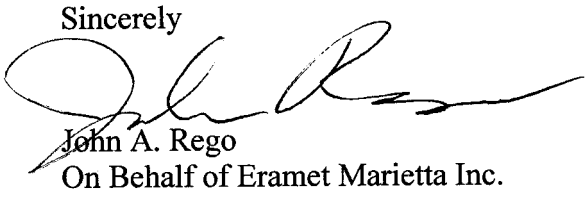
III. Request for Reconsideration and Stay Pending Reconsideration

In the absence of a timely knowledge of the matters raised in this petition, it was impracticable for EMI and other members of the public to comment fully or present all relevant objections for inclusion in the rulemaking record prior to promulgation of the Ferroalloys NESHAP Reconsideration. Accordingly, EMI requests that you reopen the public comment period for forty-five (45) days to provide EMI and other members of the public with a fair opportunity to comment on these new matters of central relevance.

EMI also requests that you stay the effectiveness of 40 C.F.R. §63.1625(d), to the extent that it requires the use of DCOT to demonstrate compliance with the Ferroalloys NESHAP, for up to three months while the Agency receives, considers and addresses public comments with respect to such matter. EMI has expended millions of dollars in capital investments in implementation of the Ferroalloys NESHAP. However, EPA's decision to determine EMI's compliance with opacity limits using a monitoring technology unsuited to the task makes it highly uncertain what conditions EPA ultimately will deem "compliant" with the new shop building opacity standards.

For these reasons, EMI respectfully requests that you grant this petition for reconsideration and stay.

Sincerely



John A. Rego
On Behalf of Eramet Marietta Inc.

Enclosure

cc: Ms. Laure Guillot
Chief Executive Officer
Eramet Marietta Inc.
(w/encl.)

NAI-1502561711v1

Exhibit 1

Request for Proposal – DCOT

Eramet Marietta Inc. ("EMI"), located at 16705 State Route 7, Marietta, OH 45750-0299 is requesting a proposal for the purchase, installation and maintenance of a Digital Camera Opacity Technique ("DCOT") for opacity reading, measuring and reporting to demonstrate compliance with the new National Emissions Standards for Hazardous Air Pollutants: Ferroalloys Production effective from July 1, 2017 ("NESHAP").

NESHAP 'Final Rule' and 'Final Rule notice of final action on reconsideration' are available in the Federal Register under references: [EPA-HQ-OAR-2010-0895; FRL-9928-66-OAR] RIM 2060-AQ11 and [EPA-HQ-OAR-2010-0895; 9958-01-OAR] RIM 2060-AS90.

1.01 Background information

EMI operates a manganese alloys production facility through pyro-metallurgical process. The production process takes place in 3 separate process buildings: C1F where the electric arc furnace #1 is located ("F1"), C2F where the electric arc furnace #12 is located ("F12") and C3F where the metal oxygen refining unit is located ("MOR").

Process gas and fumes are collected by mean of capture systems. In order to comply with NESHAP, EMI must measure opacity of residual fugitive emissions at roof line by mean of **DCOT** and **ASTM D7520-16**.

Process fugitive emission sources

EMI produces different types of manganese alloys: ferromanganese including refined and silicomanganese.

In buildings C1F and C2F the following process steps take place that can be the source of process fugitive emissions: raw material feeding and smelting, furnace taping into ladles, ladles slag raking, molten metal pouring into casting beds for metal cooling. A furnace process cycle is the period in which a furnace is tapped to the time the furnace is tapped again and includes periods of charging, smelting, tapping, casting and ladle raking.

In building C3F the following process steps take place that can be the source of process fugitive emissions: metal transfer by pouring metal from a ladle to a convertor, oxygen blowing into convertor, molten metal pouring into casting beds for metal cooling.

The molten metal temperature varies depending on the type of alloys and with the different process steps. This among other factors, influences the formation of plumes.

Process fugitive emission to be monitored at roofline

Plumes from process residual fugitive emissions do not follow a homogeneous draft like stack emissions do. Rather they follow a variable pattern before they reach the roofline and exit each building.

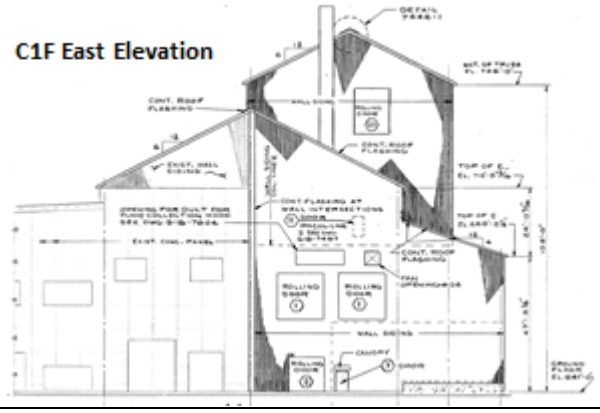
Each process step described above produces different fugitive emissions in terms of temperature and density. Throughout a 365 day period, plumes flow rate and path will vary significantly with differences in temperature and pressure inside and outside the building; cross drafts inside the building generated by indoor activities also play a role.

Plumes must climb between approximately 80 to 100ft. depending on the process steps, before they reach the roof top and exit the buildings.

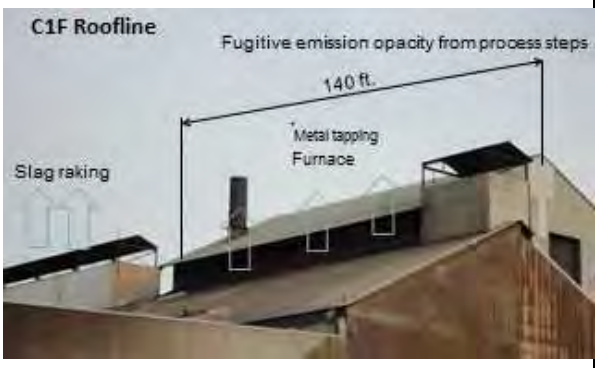
The shape and height of a plume from fugitive emissions, once it exits the building roofline is likely to be significantly abated and spread close and across the roof line by external wind as the flow velocity changes with the above mentioned parameters.

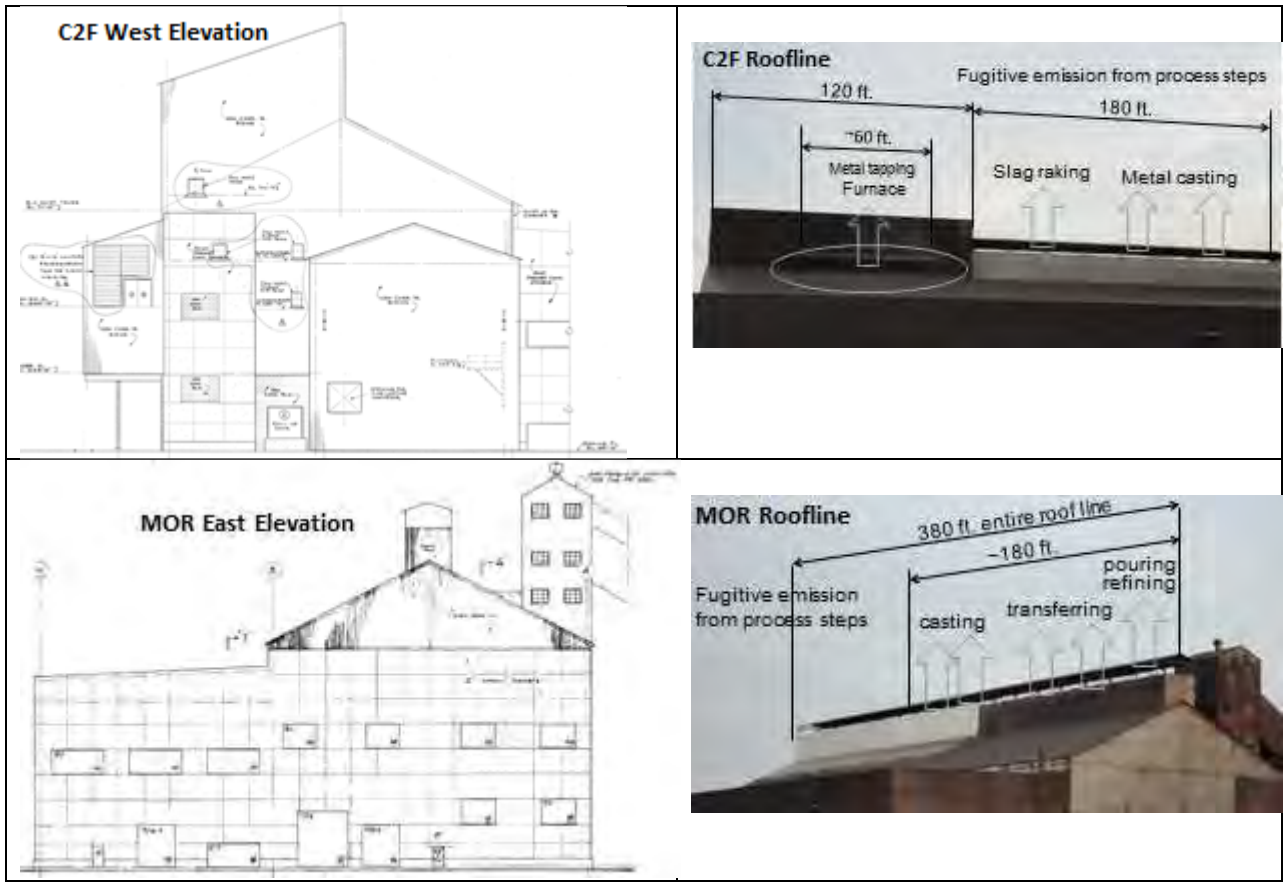
Plant Flyover Photo

C1F East Elevation



C1F Roofline





Opacity readings NESHAP "§ 63.1625 (d)"

Opacity readings are to be made at least once a week. Monitoring frequency may be reduced to once per month after 26 weeks subject to certain conditions.

For C1F and C2F the readings must be collected over a complete furnace process cycle. A complete furnace process cycle typically lasts between 90 and 120 minutes tap to tap. The readings must in any event, be collected for a minimum of 60 minutes.

For C3F the readings must be collected over a MOR process cycle. A MOR process cycle is defined as a fixed 60 minutes period; it must include at least one pouring.

Opacity limits NESHAP "§ 63.1623 (b)(3)"

Process fugitive emissions opacity requirement is described as follows in NESHAP:

"(3) Unless you meet the criteria of §63.1623(b)(3)(iii), you must not cause the emissions exiting from a shop building to exceed an average of 8 percent opacity over a furnace or MOR process cycle.

(i) *This 8 percent opacity requirement is determined by averaging the individual opacity readings observed during the furnace or MOR process cycle.*

(ii) *An individual opacity reading shall be determined as the average of 24 consecutive images recorded at 15-second intervals with the opacity values from each individual digital image rounded to the nearest 5 percent.*

(iii) *If the average opacity from the shop building is greater than 8 percent opacity during an observed furnace process cycle, the opacity of two more furnace process cycles must be observed within 7 days and the average of the individual opacity readings during the three observation periods must be less than 8 percent opacity.*

(iv) *At no time during operation may the average of any two consecutive individual opacity readings be greater than 20 percent opacity.*"

1.02 Scope of Work

A-Review of EMI's process fugitive emissions to guaranty that the DCOT equipment offered complies with the NESHAP requirement.

******* *Supplier acknowledges that it has the necessary equipment knowledge to complete this project. Supplier is responsible to thoroughly review the plant conditions at EMI and certifies that the equipment is able to function properly in the plant conditions and other conditions which are present on site as is known, or should be known, by Supplier that either will or has potential to impede the DCOT operation to include reading, calculating average and peak opacity and reporting.*

B-Selection of the necessary equipment (hardware and software) that complies with EMI's conditions and is able to record opacity in the range set in NESHAP including ASTM D7520-16 requirements as they are incorporated in NESHAP by reference.

The proposal shall describe all necessary hardware equipment to perform the task including type of camera, camera stand, computer (size, memory, display, etc…) and computer interfaces including type of connection (fiber-optic cables, wireless, etc…).

The proposal shall describe all software required for data collection, data storage and retrieving, pictures analysis, statistical calculations and reporting as well as hardware specifications (computer or other devices) to guaranty software performance and data storage to comply with NESHAP.

C-Installation of all equipment including but not limited to cameras, software, hardware necessary for DCOT to operate.

D-Testing of all equipment once installed, to ensure that they meet the necessary requirements.

E-Training of designated DCOT users: It is expected that a minimum of 3 EMI employees or contractors will have to be trained.

F-Documentation: provide all documentation to guaranty that the supplied DCOT equipment meet all criteria in NESHAP, "§ 63.1625 (b)*test methods*(9)"

******* *Supplier acknowledges that where independent technology users certification is required, Supplier shall provide written declaration of independence from said qualified users.*

******* *Supplier acknowledges that its technology (including analytical process where human intervention is needed) has been peer-reviewed and shall provide certification of the said reviews.*

1.03 Outcome and Performance Standards

Inspection: At any reasonable time, EMI, or its representatives, shall have the right, but not the obligation, to witness, inspect, or test the provided Services to verify Supplier's compliance with its obligations. If EMI deems that any Services do not conform to the requirements, Supplier shall immediately take effective measures to satisfactorily correct such condition within a reasonable time.

EMI's presence, observation, inspection, or testing shall not relieve Supplier from any of its obligations or responsibilities.

Performance testing, test method and compliance demonstration: the supplier performance shall meet the requirement in NESHAP, "§ 63.1656" for determining opacity

1.04 Deliverables

Time frame for Completion: Within 3 months from the date the order is placed, the DCOT will be operational. The supplier shall commit to meeting the deadline.

Cost estimate: Supplier is expected to provide, as part of this Request for Proposal, a detailed cost sheet including:

CapEx Costs:

a. cost of review of EMI's process fugitive emissions
b. cost of equipment including required spare equipment and spare parts,
c. cost of license fees, subscription fees,
d. cost of installation and start up,
e. cost of initial training

Yearly Operating Costs:

f. cost for weekly reading, analysis and reporting
g. maintenance program fees,
h. helpdesk fees,
i. cost for compulsory re-training,
j. cost of equipment maintenance,
k. cost of periodic calibration,
l. cost of consumables

Note that f. must be detailed to allow EMI to evaluate costs per building and change in costs should the frequency of reading be greater than a week or less than a week

Points of attention:
Supplier is expected to provide detailed information for the following:

- Camera make and model with certification and requirement for recertification
- Opacity reading and analysis: Software version reference, evidence of quality control of software readiness, integrity and reliability
- Opacity compliance calculation and reporting: Software version reference, evidence of quality control of software readiness, integrity and reliability
- Evidence of quality assurance and quality control system for software upgrades
- Evidence of compliance with slant angle, distance and still images requirements when analyzing images collected over a furnace process cycle (typically 90 to 120 minutes) and a MOR process cycle (by definition 60 minutes); evidence of an all seasons readings reliability over a process cycle (as sun angle changes at different speed from summer to winter)
- Consideration on precision and bias in ASTM D7520-16 and how this may impact on the reliability of the requirement in NESHAP "§ 63.1623 (b)(3)(iv)" (see above in paragraph Opacity readings)

- Training: training requirement such as "Method 9" training or other regulatory trainings involving certification must be addressed if applicable, including training provider and references
- If DCOT is sold as a SaaS (Software as a Service),
    - evidence of SaaS security
    - if human intervention is required for the software to read opacity, evidence of any DCOT operator training and qualification throughout the term of the SaaS contract
    - guaranteed maximum turnaround time for the result of an individual reading to be obtained
    - guaranteed maximum turnaround time for the result of an average two consecutive readings and process cycle opacity average to be obtained
    - draft Service Level Agreement including the above guarantees.

1.05 Term of the Contract

The term of this contract will be until final acceptance; however EMI shall have the right to terminate for material breach, or bankruptcy, of Supplier.

EMI may terminate for reasons other than material breach of Supplier upon thirty (30) days prior written notice to Supplier and upon the written election of EMI, Supplier shall thereafter cease providing Services.

A separate service and maintenance contract may be executed for the ongoing service and maintenance program, if accepted by EMI.

1.06 Contractual Terms and Conditions

Warranties: Supplier represents and warrants to EMI that all equipment and materials provided under this Agreement will be new; of good quality; free of defects; fully suitable for their intended purpose and work environment; and satisfactory to complete the Services. EMI shall notify Supplier of any non-conforming goods or services, and the items shall, at the election of EMI, either be replaced by Supplier or be rejected as non-conforming and removed from EMI's premises by Supplier.

In addition to the specific guarantees required, Supplier guarantees that all work to be performed and all materials to be furnished by Supplier are in strict compliance with all conditions of this request. Supplier further warrants and guarantees the work to be performed and materials to be furnished against defects in materials or workmanship for a period of three years from the date of written acceptance. Supplier shall, within a reasonable time after receipt of written notice thereof, make good any defects in materials or workmanship, including replacement of any equipment or materials that are not functioning according to specifications, which may develop during said three year period, and any damage to other work caused by the repairing of such defects, at its own expense and without cost to EMI, including replacement.

Confidentiality: EMI may disclose, and may continue to make available to Supplier confidential and proprietary materials and information ("Confidential Information"). "Confidential Information" shall mean and include information disclosed by EMI or known by Supplier through performance of the Services, which is not known to the general public, including, but not limited to, EMI's internal operations and business methods, business opportunities, finances, financial data, accounting methods, customer names and lists, customer files, customer prospects, business plans, purchasing information, sales information, marketing information, formulas, software, technology, databases, manuals,

procedures, reports, products, processes, services, inventions, research and development information, data retrieved through DCOT monitoring or provided for DCOT monitoring. Supplier agrees to consider all such information highly confidential whether or not the information is so marked.

Supplier shall maintain the confidentiality of EMI's Confidential Information and will not disclose such Confidential Information without the prior written consent of EMI. The obligation not to disclose Confidential Information shall survive the termination of any Agreement.

Supplier is not authorized to use any empirical data obtained on the DCOT for its own commercial purposes.

Subcontractor and Contractor Employees: Supplier assumes full responsibility and liability for acts, negligence, or omissions of all of (i) Contractor's employees on the project, (ii) Supplier's subcontractors and their employees, and (iii) all other persons doing work relating to the Services under any contract with Supplier.

Compliance with Laws: Supplier shall comply with all federal, state, and local laws, ordinances, rules, regulations, and orders of all governmental authorities relating to the performance of the Services (collectively referred to as "Laws"). Supplier shall give all notices required under any Law. If any of the Services requested are at variance with any Law, Supplier shall notify EMI promptly of such variance. If Supplier performs any Service knowing or having reason to know that it is contrary to any Laws, Supplier shall bear all claims, costs, losses, and damages caused by, arising out of, or resulting therefrom. Except where otherwise expressly required by any Law, EMI is not responsible for monitoring Supplier's compliance with any Laws.

Independent Contractor: EMI and Supplier shall at all times act as independent parties and nothing shall be construed or implied to create an agency or partnership between these two separate entities.

Supplier will be required to comply with all EMI Liability and Insurance Policies.

Supplier will be required to comply with all EMI Safety Procedures and Policies.

EMI reserves it right to audit supplier's facility during the warranty period.

1.07 Payment, Incentives and Penalties

Payment: EMI payment structure to Supplier would be as follows:

1.) The first 30% of total purchase price when DCOT is ordered,
2.) The second 30% of total purchase price when DCOT is installed,
3.) 30 % when DCOT runs continuously for 3 consecutive months without any problems ("EMI final acceptance"); and
4.) The remaining 10% after DCOT has been working without any interruptions, of whatever reason, for a period of 12 consecutive months and the reporting requirements in NESHAP "§ 63.1656"for opacity readings have been met without malfunction.

Penalties: If Supplier breaches the warranties, in full or in part, as indicated above, especially warranty of fitness for a particular purpose, EMI, at its sole discretion shall have the right to rescind the contract, revoke the services AND recover any and all direct, incidental and consequential damages; including, but not limited to, a full refund of the purchase price.

1.08 Supplier's responsibility

Each proposal should address each point of this request and fully answer all requirements. **The proposals should be submitted by March 17, 2017 at 5:00 pm EST.**

The supplier shall make its proposal as comprehensive as possible so that EMI may make a definitive and final evaluation of the proposal benefits without delay.

EMI shall not be liable for any expenses incurred in connection with the preparation and submission of a proposal in response to the RFP. EMI shall not reimburse suppliers for their expenses under any circumstances, regardless of whether the RFP process proceeds to a successful conclusion or is abandoned by EMI at its sole discretion.

1.09 Evaluation and Award Process

This inquiry is not a commitment to purchase and shall not bind EMI in any manner.

All proposals received will be evaluated internally and all parties will be notified of the decision within fifteen days from the submission date.

The supplier is invited to provide customers references to support its proposal.

1.10 Points of Contact for future communications

Laure.guillot@erametgroup.com
Tel: +1(740)376.5914

Paul.castle@erametgroup.com
Tel: +1(740)376-5921

Exhibit 2

Laure Guillot

From: SHAWN DOLAN <(b) (6)
Sent: Wednesday, March 15, 2017 10:40 AM
To: Laure Guillot
Cc: SHAWN DOLAN
Subject: RE: DCOT Request for Proposal

Laure,

Thank you, see inline as well as:
A set is composed of any 24 consecutive images with the opacity values from each digital image rounded to the closest 5%. Sets need **not be** consecutive in time.

217 possible 6 minutes averages in one hour, is a rolling 6 minute average, very hard to comply to, corresponds to the CA Method 9 rule. E.g. if I have 26 images, 15 seconds apart you get (3) 6 minute averages, 1-24, 2-25, 3-26, each being a "consecutive 6 minute opacity" so if your high for 1 minute you will exceed the 2 consecutive readings……

In your case you have a set of sets to work with "individual opacity readings" in sets of 24, with the AVERAGE of the set being the opacity value, and no two consecutive sets may be over ……. If you do not define this it will be interpreted as a rolling average "EPA Preferred", e.g. you interpreted it this way. If we define the set, your 8% limit is the "average of the averages" this is good for you. For instance what if the MOR cycle was 66 minutes, or even 62, what would that do to the consecutive average when the highs that occur in the pour are averaged with the lows that occur before and after.

Laure, please let me help. Your friend is the phrase "in no instance shall to sets overlap"

Thank you.
Shawn Dolan

From: laure.guillot@erametgroup.com [mailto:laure.guillot@erametgroup.com]
Sent: Wednesday, March 15, 2017 6:42 AM
To: SHAWN DOLAN
Subject: RE: DCOT Request for Proposal

Shawn

In 1 (first -)
Please can you explain what is the difference between:

ASTM7520-16

"8.4 A minimum of 24 consecutive opacity images shall be taken at 15-second intervals. These 24 images constitute a record set. Each image taken shall be deemed to represent the average opacity of emissions for a 15-second period"

"8.4.5 Opacity shall be determined as an average of 24 consecutive images recorded at 15-second intervals. Divide the recorded images into sets of 24 consecutive images. A set is composed of any 24 consecutive images with the opacity values from each digital image rounded to the closest 5%. Sets need not be consecutive in time and in no case shall two sets overlap. For each set of 24 images calculate the average by summing the opacity of the 24 observations and dividing this sum by 24.

NESHAP

"§ 63.1623 (b)(3) (ii) An individual opacity reading shall be determined as the average of 24 consecutive images recorded at 15-second intervals with the opacity values from each individual digital image rounded to the nearest 5 percent.

In 1(second-)

Please can you explain why you say that you do not agree that A1.5.30.2 in ASTM D7520-16 does not correspond to a MOR process cycle. The text says that there are 217 possible 6 minutes averages in one hour, is that why you say that you do not agree and hope that I am wrong?

Are you therefore considering that the NESHAP rule can be interpreted such that the calculation is made on successive 6 minutes averages and not "rolling average"? YES, where do I send my bill, lol

I am confused as at the same time your documentation on your website makes reference to Method 9 and reads in Visible Emission Eval. Procedures (linked document on page 5-19): Note the APTI 325 course is not Method 9. As I explained people get certified as Visible Emission Observers (VEO's) and VEO's perform Method 9 which is a specific averaging methodology (specific equation). You have a "set of sets rule" Laure, that is as good as it gets, if defined correctly for the process being measured, e.g. what I do for a living.

Data Reduction

The method states:

> Opacity shall be determined as an average of 24 consecutive observations recorded at 15-second intervals. Divide the observations recorded on the record sheet into sets of 24 consecutive observations.

Taken out of context, this section has been used by defense attorneys to claim that the observer must take the first 6 minutes and average them, then the next 6 minutes and average them, and so on. This is not the case.

Best regards

==========
Laure Guillot
Chief Executive Officer
Eramet Marietta Inc.
Tel: +1(740) 376-5914
Mobile: +1 (740) 350-3798
e-mail: laure.guillot@erametgroup.com
==========

From: SHAWN DOLAN [mailto: (b) (6)
Sent: Wednesday, March 15, 2017 3:31 AM
To: Laure Guillot
Cc: SHAWN DOLAN
Subject: RE: DCOT Request for Proposal

Laure, I answered as possible in-line below.

From: laure.guillot@erametgroup.com [mailto:laure.guillot@erametgroup.com]
Sent: Tuesday, March 14, 2017 7:09 PM
To: SHAWN DOLAN
Subject: RE: DCOT Request for Proposal
Importance: High

Shawn,

Before Eramet Marietta makes any decision I need some more clarifications:

1///Computing built in your software
From our exchange of mails, I understand that your product is not ready to meet the calculation requirements set in NESHAP § 63.1623 (b)(3) (copied in the RFP under opacity limits) I strongly disagree with this statement. "No NESHAP output exists in a certified version of DOCS II is a correct statement" but not ready to meet the calculation requirements is a big stretch given the calculation requirements are not complete.

- Can you confirm that your software is already built to calculate and report data reduction as described in 8.4, 8.5 in ASTM D7520-16 YES, (rule out the last sentence in 8.5) : This corresponds to a reading in NESHAP § 63.1623 (b)(3)(ii)? Do not agree
- Can you confirm that your software is already built to calculate and report data reduction for a one hour data set as per A1.5.30.2 in ASTM D7520-16 YES; one hour corresponds to a MOR Process cycle per the NESHAP rules? Do not agree and really hope you are wrong on this one.
- Can one extract from the analysis software that is calculating the opacity for each single image, a table with each single opacity value associated to one image (after the image has been quality checked by the DCOT operator) - table in a readable format to calculate averages ???? YES/NO, can extract into excel but averages calculated outside of DOCS II are not DCOT Output and violate certification, e.g. "Output" as defined in ASTM D7520-16, 7.1.3.
- Can you confirm that the software meets the requirement in 4.1 of ASTM D7520-16 YES, exemplifies last statement

2///Software as a Service (SaaS) versus software

- SaaS turnaround time: How fast can the opacity of an image be transmitted to the DCOT operator for QA/QC and corrective action, a few seconds, but most customers want much slower than that. Best is remote alert so the Ferro Alloy operator gets the alert and can immediately take corrective action.
    - Does the cost change with the response time? YES
    - What is the minimum guaranteed response time and the cost per image associated with it? Depends on the image, but DCOT's are not developed, certified or priced, to do anything on a "per image" anything. DCOT's do "Sets" and rules to create output which is part of the DCOT…..
        - There is no way I can say how much it would cost to analyze an image unless I completely controlled the image and the capture environment. Were the pictures taken by the accountant, the engineer, the technician, most important how far did they vary from the training. Or one does remote cameras, in fixed places with fixed time and the image quality is consistent and thus the cost is consistent.
        - Analysis Cost is all about the framing quality, image stabilization, variation between images in the sets, consistency with DCOT rule, e.g. Method 9, CA Method 9,, Method 9n, Dust…..as explained in previous email. Note old pricing was quoted by rule, and one

day hopefully there will be a FerroAlloy NESHAP rule that will provide the output agreed upon.

  - What is the maximum guaranteed response time and the cost per image associated with it? Only quoted after the consistency and quality of the image sets can be validated.
  - What is the typical response time? Every observation (set of images) is unique, contractual is now the methodology by account based on customer requirement.

- SaaS estimated running costs: can you update your tariffs (attached is the table) VT LLC no longer prices in this manor, picture variation is too high. All DOCS II customers now have site surveys that establish the picture quality, repeatability, output, cycle timing…….per last email.

- The DCOT operator can immediately interact with production operators for corrective actions should consecutive images show a trend towards an excess in opacity limit. The Virtual Technology software operator in Sri Lanka cannot interact with our production operators for corrective actions. Therefore it seems to be more efficient that the DCOT operator is trained to operate the analysis software rather than depending on a SaaS solution. What would be the annual license fee in that case? Why again can't the DOCS II Analyst from Sri Lanka, more likely Utah, AZ, NC, interact with the production operators? We are talking about a broadcast trend number? The production operators certainly get support from control equipment vendors, abb, GE, Koyo, etc who have call centers all over the globe handling support just like VT LLC. VT LLC is today in a position to license a DOCS II ERAMET, I have been thinking what we would need to do to go back to this approach. Quality Assurance, was the reason DOCS II was moved to SaaS. The VA DEQ proved it was not practical to assume a casual user (1 time every 6 months) could remember enough from training to perform a satisfactory job, (VT LLC's analyst passed the smoke school VA DEQ could not in the evaluation so mis-quoted in the record). Therefore, a QA oversite to insure PICTURE quality, and thus SaaS. We would have to develop a way to assure quality. I am interested in exploring this option but not for free.

3///Camera on a tripod versus fixed camera remotely controlled

- As the DCOS II requires a DCOT operator to check every single image for QA/QC, I see only limited time saving if any at all in a solution with fixed cameras remotely controlled. (DISAGREE, one assumes all operators are equal in this and that is not true.) At the same time I anticipate a costly implementation especially when being charged 2500$/day, I DISAGREE strongly: ALL software development standards (IEEE 12207, CMMI Level X, JAD, RAD, Agile etc., and configuration control standards and change management standards quote) the sustainability is a function of the quality of the requirement. Once the requirement is defined to the zeros and ones the rest is very inexpensive and sustainable. Poor requirements will definitely bring higher costs, that is documented all over the software world, e.g. why 8 of 10 software projects fail. I have done this for 30 years. all of my software project continue today, and are projected into the 2020's because they are built on a solid foundation and eliminated variation.
- I am seriously considering a camera on a tripod as the most cost effective option. Can you confirm that in that case the software and camera delivered "of the shelf" meet the requirement of 3.2.3 and 3.2.5. (YES if referring to ASTM D7520) and that Virtual Technology will certify it? Depends on IT?, are we referring to the camera? YES, or the Operator, YES, but only to the rules "image sets" certified in DOCS II. In that case my understanding is that only the training would need to be added (DCOT operator(s)/DCOT camera operator(s)) to get a solution ready to operate (safe for the points 1 and 2 above). Please confirm? As you said "attached is the quote you provided in 2015", this was the best approach then no doubt, Two years' worth of using this VERY Affordable approach, (Less than a day of DC lobbyist) would have ERAMET personel understanding all of what I am trying to convey. All the definition would be flushed out,

reduced to output and the baseline recertified. Per above I personally do not believe this approach is an option today. As I told Russ "we are talking a couple of thousand dollars to get a camera and start measuring the process. Pictures are very valuable in negotiating and there is a lot of gray areas to be addressed over the NESHAP implementation". Today there is less gray but its still there, e.g. I really hope you are wrong on A1.5.30.2 in ASTM D7520-16 representing a MOR cycle. That would be the most restrictive way to do it. You have a set of sets, which is the best for you. I still do not understand why Russ did not buy a subscription and use it to negotiate the NESHAP in 2012. This is why I went direct to you this time.

Thank you for the opportunity to again address your questions and concerns. Likely in April, you will have another point person to work with and yet another way of pricing. Maybe ASTM will change the standard in 2019, to allow single images and a spreadsheet, but that would have to go through big resistance, especially with all the limits gone. Do you really want to explore a ERAMET copy? If so we need to get down to talks sooner. I kind of like the idea, always have, as I believe in embedded controls and eliminating human error in the process.

However, I cannot have another VA DEQ reporting that DOCS is not good enough on black. Only 1 of 5 people who analyzed those horrible quality images, captured 6 months after VT LLC certified all of the trainees, could not get the right answers. That (1), Bill just got in a hurry and forgot to peer review his paper, to use your words. Good news is, when you get trained to be a Digital Camera Operator you will see the sets of VA DEQ pictures and analysis of that study. We use it our training to exemplify what not to do when taking a picture from a tripod, e.g. when VT LLC analyst (☺ in Sri Lanka I use that one tomorrow☺) see pictures like this (Pictures from VA DEQ), they are going to get rejected, because they are not: zoomed in tight enough; the sun is in the wrong place; the contrast selection is horrible; the shadows are right were the boxes need to go, no horizontal line of light, the foliage used is not a good background as it moves, …….. Now follow the training and move the camera like this, frame the picture like this, use the foliage in an advantageous way, and they will look like this (VA DEQ certification pictures) at the same park, same smoke generator, same general position, 6 months earlier. There is a VERY noticeable difference, all DCOT operators are not the same.

If we can find a way to solve this risk for DCOT's I'm game, until April 10th.

Thank you
Shawn Dolan

Best regards

==========
Laure Guillot
Chief Executive Officer
Eramet Marietta Inc.
Tel: +1(740) 376-5914
Mobile: +1 (740) 350-3798
e-mail: laure.guillot@erametgroup.com
==========

From: SHAWN DOLAN [mailto: (b) (6)
Sent: Sunday, March 12, 2017 6:27 PM
To: Laure Guillot
Cc: SHAWN DOLAN
Subject: RE: DCOT Request for Proposal

Laure thank you, I am sorry for the confusion. VT LLC would NEVER asked to be paid to response to a request for proposal.

VT LLC's product, DOCS II is an ASTM D7520-16 certified DCOT as required in the Ferro Alloy NESHAP. The specific application of DOCS II to the Ferro Alloy NESHAP requirements is custom to the facilities that require compliance to the Ferro Alloy NESHAP.VT LLC does not sell a product specifically for the Ferro Alloy NESHAP as your RFP implies. Thus the modifications required to automate the requirements of the Ferro Alloy NESHAP must be created for the specific customers.

Having invested over 10 million in the last decade to bring this product to market, along with the standards and testing required to support its use. DOCS II is a DCOT as defined by ASTM D7520-16 and is certified to the performance based requirements of ASTM D7520-16.

DOCS II has lots of options for implementation. Shoot from the hip, Method 9 like, with a hand held camera, or very sophisticated like the automated FlareWatch for the Gas and Oil sector. Each installation of DOCS II is specific to the customer's needs and the definition of the customer's needs is the effort you are asking me to do. VT LLC will gladly perform this definition task, as we are very qualified to do it, but I do not do this work for free. Bottom-line until the definition is good enough to apply it to a DCOT, (logic detailed enough to program a computer to do it), I cannot be expected to provide an accurate cost. With this said the answers to your questions/statements are in line below as possible.

Shawn
(b) (6)

From: laure.guillot@erametgroup.com [mailto:laure.guillot@erametgroup.com]
Sent: Thursday, March 9, 2017 7:25 PM
To: SHAWN DOLAN
Subject: RE: DCOT Request for Proposal

Dear Shawn,

I was somewhat taken aback by your business approach.
We have never entered into business with a potential supplier by paying consulting fee for a response to a request for proposal.

I have the following questions, comments on your mail below:

- The RFP does not specify that our furnaces and MOR operate typically 24/7, 360 days a year, I thought it could be a useful information:

  I need to physically see a furnace/MOR cycle before I would make any recommendation on appropriate equipment, or positions from which to monitor the event. I asked how often they occur from a scheduling perspective. I see in your reply these are running all the time, do emissions vary a lot by alloy? Would be another variable and possible schedule constraint.

- A furnace process cycle is defined in NESHAP §63.1622. it is not a matter of interpretation or adjustment.

  My stock in trade is the ability to form the level of interpretation and adjustment you are about to experience. I do feel there is a significant differences in very small adjustments that may be your best interest, and I only act in the best interest of my customers. E.g. Tapping to Tapping, if you run consecutive tapping's does one always finish before the other begins? If not, do you monitor both or do you end one and begin the next?, can both ends be monitored by a single camera at the same time? Where would we place that camera, or is it better to have cameras? Where would we measure in the frame?, what triggers the recording be started and stopped?….

- A MOR process cycle is per NESHAP §63.1625(d)(iv) a one hour period that includes one pouring. The process can start anytime as long as it includes one pouring.

  "Including a pouring" when the molten metal begins to pour?, or when it hits the cast?, and end when the cast is full? or when it sets, e.g. x minutes after the pour? Seems we could go longer than an hour? Start at the pour and average 50 min after?. Again this is NOT a recommendation as I have not seen the process, but I am trying to exemplify the ever so slight interpretations on start and stop times that make a difference.

- As written in the RFP, NESHAP §63.1623 (b)(3) specifies the limits for average opacity and peak opacity . I would expect the data reduction and calculation of opacity to be derived from method 9, I do not see what other means of calculation or data reduction could be used. therefore I am not quite sure why you are asking more details. Neither do I understand your comment on what you call "rolling 24" and "specific 24". I would expect that you have a good familiarity with Method 9 since your promote your solution as a substitute to Method 9. The explicit reference to Method 9 is to be found in ASTM D7520-16 which is incorporated in NESHAP by reference.

  Yes, I am very familiar, I am the technical POC for ASTM D7520-16 and have been for the past 6 years, Method 9 certified for years and years, so I am very familiar with the different "Method 9's". My stock in trade is, explaining the difference in accepted averaging methods aka rolling 24 and a specific 24, and in your case even more flexible a "set of sets". At the moment nobody is paying me to interpret this NESHAP, for implementation and automation at a facility. However without this definition, software cannot be written to generate the reports. Now if you want to say its rolling24 then the calculations can be done, or one could infer that the reference to Method 9 implies a specific 24. However, if specific 24 is to be used, then the next definition "consecutive", is required to calculate the average and peaks. Yes we do generic data reduction in DOCS II per the most common interpretations of "Method 9". However, your request is data reduction specific to the Ferro Alloy NESHAP and more specifically to ERAMET process. Thus it needs to be defined in accordance with what is best for you accepting the boundary constraints. and maximizing the flexibility of site specific automation.

- You mention that "*the level of logic is quoted previously as a long lead time item*". Could you be more specific? What is exactly available in your DCOT solution in terms of data reduction and calculation of opacity? (please refer to page 5 in 8.4 and 8.5 as well as page 15 in ASTM D7520-16 A1.5.29 and A1.5.30)

  Per our demonstration and my last proposal, we do Method 9 specific, Method 9 rolling, CA Method 9, AZ Instantaneous Survey, 203A and 203B, and total average. Since the demonstration we have added TX Method 9 and 22 survey, NWCAA Method 9n, FlareWatch per the G&O MACT, ooooa, CA Dust, AZ Dust. US EPA Method 9, ASTM D7520-16 defines a way of calculating an opacity for 24 readings in an observation, with exceptions and exclusion. However, Every one of the National Association of Clean Air Agencies (NACAA), has defined one or more ways of using opacity readings (images), how to collect them and reduce the data. Some every 5 sec. some every 15 sec. some wanting each set of 24 in the 240 (1 hour) reading set to be averaged, others looking for only the high count in the 240 set. Some looking for time out of compliance while others look for time in compliance and so on. You are very fortunate to have the definition you do to work with. Now its just a matter of how you decide to make that work for you. I believe a key phrase to you is what I wrote in ASTM D7520-16, A1.5.29.2 and specifically

"A1.5.29.3 The method continues:

"A set is composed of any 24 consecutive observations. Sets need not be consecutive in time and in no case shall two sets overlap." A1.5.30.2 is something you need to stay away from.

Knowing the difference in the data reduction is VT LLC's value add.

- When it comes to the guarantees, your company is the expert in your field, we have no expertise in DCOT. As DCOT is to be used to determine compliance with EPA regulations we must have guarantees (please refer to NESHAP §63.1656, §63.1657 §63.1659 §63.1660). Please specify exactly what guarantees you will provide.

  VT LLC guarantee's that DOCS II is compliant with and certified per the performance criteria of ASTM D7520-16. Further, the certification is specific to the camera used and images acquired. Images must be captured using a certified camera and in accordance with VT LLC's certified camera operator training, by a certified camera operator. Yes we are the expert in this field. We are in business to help industry comply with regulations. We have a DCOT that ideally is embedded into the customers process such that visible emission compliance is routine, defendable and sustainable. VT LLC's "product" is helping customers comply with specific visible emission regulations that effect their facilities. VT LLC sells consulting services, and the DOCS II family of products. VT LLC is familiar with the NESHAP you reference, as well as many other regulatory initiatives through the world associated with the measurement of Opacity. The final "Standard Operating Procedure" regarding how DOCS II is implemented into the ERAMET operations in a sustainable fashion to comply with the NESHAP is our expertise. One could assume it won't make a difference, I firmly believe it will, and VT LLC's stock in trade is helping you understand the options and risk such that you can make an informed decision.

- I do not understand your sentences "*Variability such as mentioned above, precludes the ability to make these warrantee's. I am quite certain ERAMET would prefer the flexibility to maximize variability in application, versus the rigidity of specific purpose. However, if you want rigidity, then I can conform but the level of detail will have to get much deeper*". Can you explain what that means?

Please read ASTM D7520-16 A1.5.29.2, there is a reason we wrote that in the standard. VT LLC's stock in trade is defining how things like that specific reference could be very beneficial when applied to the NESHAP in question. In summary to your question, for VT LLC to guarantee fitness for a specific purpose, we must have a means to determine compliance with the specific purpose, testable and verifiable, and independent of site specific variation (operators and emissions) . VT LLC can guarantee compliance with and certification to D7520-16 because there is a specifically defined certification test with a clear pass fail criteria, that is not dependent on site operations or emissions. VT LLC would never guarantee compliance with a NESHAP in operation as that is dependent on the clients operation's and emissions, two things VT LLC has no control over.

- I do not understand your sentences "*Perhaps you have already performed these definitions? However, if they were defined without respect the operation of a DCOT and specifically the Digital Opacity Compliance System Second Generation then we will need to revisit them*." Can you explain what that means?

  Humans doing visible emission and cameras doing visible emission while very similar in many ways are different. Cameras are much more precise which is very good for start and end times, and repeatability. Humans not so much on ether score, e.g. ASTM D7520-16 A1.5.29.2. Thus if you have someone who is supposedly an expert in visible emissions but does not operate a DCOT help you define the definitions required, they will likely not be DCOT friendly. Please understand, I am a believer in visible emissions performed both with eyes and cameras and I know both very well. Your questions here tell me these definitions have not been performed, but they need to be in order for a computer to produce the desired results. Computers only know Zero and One, computers have to be told everything else, that is VT LLC's stock in trade.

Regarding a visit to our site, this can be arranged as long as the time is well spent. For that you have to be more specific on:

- How you intend to organize the day or days (furnaces and MOR operate 24/7, a typical furnace process cycle is 90 to 120 minutes there are 2 buildings hosting a furnace, a MOR process cycle is by definition 1 hour)

I would like to witness a day of each, and review the current SOP's used to perform the processes within the "cycle", I need to know what a valid stop and start to each process is, in the context of the cycle and the emission process time. We need to know, time from visible at the "process point" to visible at the roof exit….. I will need an facility guide, who knows the fastest most efficient way to make Ferro-Alloy, as I ask a lot of questions about process e.g. I'm a Six Sigma person. In addition to your best process/operations person an environmental compliance representative who can explain how Visible emissions have been monitored in the past and knows this NESHAP will be helpful. In the three days I would have on-site, I need know your process well enough to make a list of options and risks for implementing a DCOT to monitor these process. I need to understand the process value chain and the variables and most important the timing of the value chain.

- what you will need to do on site for each of the building, (observe and watch the process end to end and repeat).
- what equipment, material, support you would need to collect the information required for you to develop a response to our RFP.

We need the definitions explained above, and determination as to the boundary we can reliably operate in. Basically I need to observe the process and determine the variability of the process within the value chain to be monitored. We need to define the very finite of the rules to use to generate the observation reports desired, and the best positions for the camera(s), to include the ambient environments they must withstand. I will need timers and the ability to communicate inside and outside of the building at the same time (radio's/Cell phones).

I believe in a day we could agree on an observation plan, execute the plan over the next three days 1 per building, and then generate an options and risks brief for the 5th day. The options brief will enable informed decisions be made, allowing the RFP to be regenerated to include the specifics of the selected option. Then VT LLC would provide a you a response free of charge.

Note that

- you will have to go through a safety training for visitor (count 30min), we will provide PPE, no visitors are allowed alone on site, you will have a guide with you. Great and proper, assume I need steal toes?
- you will have to sign a Non-Disclosure Agreement (per the language in our RFP) Not sure I understand the per the language of the RFP but I have no issue with a standard Non-Disclosure agreement, have signed one for all customers to date.

Regarding costs to review our process fugitive emissions, if a visit to our site is agreed:

- 2500$ per day on site is high I would expect a commercial effort to enter in business, Not sure I understand commercial effort….VT LLC's daily rate is a lower rate than most attorneys and professional engineers, e.g. $250/hour on a normal 10 hour on-site day, e.g. 8 onsite and two making notes and action lists for the following day.
- we do not pay travel time, (I cannot travel for free, takes me out of billing my time all day to get from AZ to OH) so we need to agree on how to compensate for the time lost in travel, could do $250/hr door to door given that while on travel your project is all I will work on. Or we can bundle the trip at 7 days).
- we do not pay for the development of the response to the RFP. (I agree, that cost is on VT LLC)
- travel and accommodation expenses will be reimbursed at cost with copy of invoices (estimated cost to be agreed before travel). (VT LLC has never done this before, all VT LLC customers pay GSA Per Diem rates plus 10% overhead rate, to cover the administrative cost of making payment prior to being reimbursed by the customer, invoicing and collections, if VT LLC makes the arrangements. If ERAMET wants to make the arrangements and pay for the airfare, hotel, rental car, and M&IE direct that would eliminate the 10% surcharge).
- Payment will be made upon receiving your complete response to our RFP, (Payment for the consulting services that need to be performed, cannot be tied to a reply to your RFP. VT LLC will reply to the RFP when it is reissued with the content this consulting engagement adds to the definitions. Payment upon creation and briefing of the

"critical decisions required brief that will be prepared and briefed on the final on-site day as the exit consulting deliverable.)

- VT LLC is happy to pay the cost to propose to your RFP given we address the definitions required, in this consulting engagement.

Shawn
Best regards

==========
Laure Guillot
Chief Executive Officer
Eramet Marietta Inc.
Tel: +1(740) 376-5914
Mobile: +1 (740) 350-3798
e-mail: laure.guillot@erametgroup.com
==========

From: SHAWN DOLAN [mailto: (b) (6)
Sent: Wednesday, March 08, 2017 12:58 AM
To: Laure Guillot
Cc: SHAWN DOLAN
Subject: RE: DCOT Request for Proposal

Thank you Laure,

I gave this a look through. Obviously I cannot present an accurate fixed price, without first visiting your facility and observing the "Furnace" and "MOR" process cycles, to include the transport operations, as the "Cycle" processes. It seems to me, the step of "Pouring the molten metal into casting beds" should be excluded from the "Furnace Cycle" if possible, in defining the length of the observations in CF1 and CF2. It appears the MOR is fixed at 60 min. but from when? Further, the definition of an i) "Individual Opacity Reading" and the selection of the ii) "24 Consecutive Images", particularly with respect to iv) whereby any 2 consecutive "Individual Opacity Readings" shall not be more that 20% needs detail. The difference between a rolling 24, versus a specific 24, when compared consecutively is significant. Both your RFP and the NESHAP are silent on this requirement. This is the level of logic that is required, quoted previously as a long lead time item. This logic is also likely the greatest overall project cost, and time driver. However, this is also the logic that will define pass or fail. Thus critical to get it correctly defined and sustainable.

Please contract me to come review your facility with you. Please lets work together as we watch these "cycles" and decide what it takes to meet the objective. The final definition of how to start and stop a "cycle" is critical to success. One or two images, (30 sec.) could be a very big difference, if pouring alloy is like pouring copper? We will then figure out how do we keep the parameters in balance and IF that can be achieved, a Six Sigma Failure Mode Analysis so to speak. Then we can determine the equipment that will withstand the heat, the power requirements, the maintenance, the security, the storage, the provisioning and spares, etc. But first we must define the "Individual Opacity Reading" as it relates to the "Furnace" and "MOR" "Cycle". If this can best be achieved with a single output definition that would be less expensive. However, the objective may best be achieved if the cycles differ particularly with respect to the roof line exit vents and the plume "rise" characteristics. It may be better to have a specific report for each "cycle", and multiple different types of cycles perhaps specific to alloy? But again you know the alloy business not me. Then I can formulate a cost to certify the output report(s). I don't know Ferro Alloy but I do know DCOT's and fugitive emissions.

In short, until I better understand what it will take to achieve the objective! Im not going to be recommending/providing any equipment/software/security/reporting/etal. The idea of a warrantee of all this for fitness of a particular purpose? My license agreement, as does every software license agreement I have ever signed, specifically disclaims warrantee for merchantability and fitness for any particular purpose. I believe the international standard of operations specifically disclaims warrantee for merchantability or fitness for any specific purpose, unless the purpose is very specifically and narrowly defined. The ASTM D7520 requirement is IEEE 12207 like, not peer review. Peer review is usually applied to research papers, and academia prototyped and unsustainable projects. Software maturity is based in repeatability, reproducibility and sustainability, of process, from requirement through design, develop, test, deploy, test, deploy, measure and improve, requirements, e.g. why we must have a very well defined requirement. If you want to pay for a redundant peer review, and we can agree on a competent "peer" then I'm happy. Variability such as mentioned above, precludes the ability to make these warrantee's. I am quite certain ERAMET would prefer the flexibility to maximize variability in application, versus the rigidity of specific purpose. However, if you want rigidity, then I can conform but the level of detail will have to get much deeper.

I charge $500/travel day in continental US, $2500/day on site, $1000/day office time, plus expenses @ actual + 10%, due upon receipt. I know that the Furnace cycle is a costly thing to perform, how often is the furnace cycle repeated in each facility? Are we talking about a daily occurrence or multiple cycles in a day?

Consulting fees are time based and non-refundable. You would know how long we will need on site to observe the Furnace and MOR cycles enough to perform the definitions stipulated. I would hope we could do in three days and I would hope that could be next week. Perhaps you have already performed these definitions? However, if they were defined without respect the operation of a DCOT and specifically the Digital Opacity Compliance System Second Generation then we will need to revisit them.

Respectfully, I cannot answer this RFP as written, as you are asking me to price an unknown and undefined requirement and then to warrantee the unknown for compliance to an undefined. Yes, I'm a small business driven to achieve, but frankly any company that would fix bid a contract like this is not someone I would want to do business with. Lets please get a site survey completed determine what it will take to meet the objectives. Then Ill gladly price that requirement going forward in a turnkey manor as requested. However, I will not warrant for merchantability or fitness for any specific purpose other than to measure the opacity of visible emissions.

I need to be in Morenci on Saturday the 11th, and in Phoenix on Friday the 17th , could come to Ohio Sunday through Thursday if that is enough time to define the Cycle(s) and the Individual Opacity Readings and how they are defined as consecutive. The following week is better if we need a full week to get the definitions defined, e.g. we need to see the emissions from the cycles with respect to time from the point of emission to the point of externally visible emission, so will likely need to have some support staff, good radios and multiple timers.

Thank you, I do look very forward to meeting, and I thank you for your time and effort in this matter. Ill call ya in the morning to discuss in more detail. Sorry for the long email this detail is what I wanted to speak about previously. Until these concerns are defined nobody can move forward without risking disaster. I have avoided disaster for 30 years in this business by making certain we are all on the same page when we start and finish.

Shawn Dolan
801 309 3626

From: laure.guillot@erametgroup.com [mailto:laure.guillot@erametgroup.com]
Sent: Tuesday, March 7, 2017 5:43 PM
To: SHAWN DOLAN
Subject: DCOT Request for Proposal
Importance: High

Dear Shawn,

You will find enclosed Eramet Marietta Inc. Request for Proposal for DCOT.
We look forward to Virtual Technology llc. response not later than Friday March 17, 5pm EST
Best regards

==========
Laure Guillot
Chief Executive Officer
Eramet Marietta Inc.
Tel: +1(740) 376-5914
Mobile: +1 (740) 350-3798
e-mail: laure.guillot@erametgroup.com
==========

From: SHAWN DOLAN [mailto: (b) (6)
Sent: Friday, February 17, 2017 8:14 PM
To: Laure Guillot
Cc: SHAWN DOLAN
Subject: RE: DCOT

Thank you Laure, for the reply, sorry for delay was waiting to get an answer.

A lot of good has transpired since we spoke. We have implemented more systems around the world, updated all the standards, the World Bank set the best example of environmental stewardship ever, we got a republican president, my AZ senators got reelected. I was able to attend the inaugural ball…..

I reached out to you because I committed to you, we would make DOCS II work for you. If you want to talk I am open to making DOCS II work for ERAMET as I promised. July is not very far away, your notes certainly reflect the long lead time items.

With regards to your request, the worlds industrial complex and DOCS II subscribers were a little taken back by the propaganda that got published on regulations.gov. At this moment, association with your matter is not desired. Sorry, I understand their position, and my customers wish is my command. I have a green light to describe capability as we built/tuned it, over the last two years and a maybe, if we are on the same team.

I would never comment on the progress/status of any open environmental concern but as you know, a year is not long in that world. I can say things are better and more advanced today than a year ago.

If our discussions warrant, I will put you in contact with the security vendor (camera), stack testers, cloud/network service provider, we used. You likely already have favorite contractors in these areas and VT LLC (I) prefer to use local vendors for the onsite services. I have no idea what you desire so until I know that, I wouldn't want to involve others anyway.

I look forward to a meeting time and date. I'll be at the 4C conference in Austin next week (great Air conference be great if you could attend) and then to Mexico, I can meet the second week of March 12-19 at the moment. I am assuming DOCS II will belong to a multi-national soon, and I will no longer be in a position to offer any customer configuration.

In this acquisition process, I am trying to be sure to live up to any and all promises I made along the way. I do look forward to turning this technology over to one of the suitors.

Thank you for your time and effort in this matter. Have a great weekend hopefully we will speak soon. Ill try your cell Monday from the show.

Shawn Dolan
President
Virtual Technology LLC
801 309 3626

From: laure.guillot@erametgroup.com [mailto:laure.guillot@erametgroup.com]
Sent: Wednesday, February 15, 2017 10:16 AM
To: SHAWN DOLAN
Subject: RE: DCOT

Good afternoon Shawn,

Thank you for your mail.
I appreciate your desire to get satisfied customers and I will revert at a later stage regarding a potential meeting.
Looking back at my notes from our earlier contact in 2015, I remembered that you were in the process of deploying your technology at Maynard Steel in Wisconsin.
At the time we had asked you for a contact person that we could talk to for reference
If I am not mistaken, you did not consider a contact could be established yet due to the fact that this company had other priorities linked to environmental considerations.
I assume that after more than a year your technology is now in place at Maynard steel.
Could you provide me we a contact that we could approach to hear about their experience with implementation and operation of DCOT?

Best regards

==========
Laure Guillot
Chief Executive Officer
Eramet Marietta Inc.
Tel: +1(740) 376-5914
Mobile: +1 (740) 350-3798
e-mail: laure.guillot@erametgroup.com
==========

From: SHAWN DOLAN [(b) (6)
Sent: Tuesday, February 14, 2017 7:59 PM
To: Laure Guillot
Cc: SHAWN DOLAN
Subject: DCOT

Hello Laure, I pray your holidays where wonderful and your family is doing well.

As you likely know I am the owner of Virtual Technology LLC and the Digital Opacity Compliance System Second Generation. DOCS II is the only ASTM D7520/USEPA Alternative Method 082, Digital Camera Opacity Technique, commercially available.

I have been working in the visible emissions business for many years as we spoke during my web demonstration so long ago.

I would like to speak directly with you regarding options, as to how we can best achieve the cost effective implementation of DOCS II, for ERAMET. My desire is, how do we make a DCOT successful at ERAMET. Perhaps the best option might be that ERAMET purchase/license the DOCS II technology stack and implement it as desired.

I know there was a lot of "DOCS II only does XYZ" in this journey. However, I maintain my original remark, I want customers who get value from my products and services. They are my products and services and I am open to implementing them in whatever way meets my customers', requirements, goals and objectives.

I have customers who have embedded the technology into control systems, customers who do 24/7/365 monitoring and kick exceptions for analysis, replacing COM's and CEMS, customers who do their own analysis, and customers who are repurposing the technology into various other markets.

I feel if we meet in person, you tell me how you want this to work, I'll explain absolute capability and any restrictions or problems we may encounter to adapt to your vision, we decide a path forward that brings value to ERAMET and get this done.

I am truly open to any solution we can innovate, given it fits with standards, etal. The ASTM meeting is coming up in April and I still chair the technical committee.

Please reply with your direct phone contact or feel free to call my cell phone 801 309 3626.

Thank you so very much for the opportunity to offer you my finest service, and your time and effort in this matter.

Shawn Dolan
President
Virtual Technology LLC
801 309 3626

CONFIDENTIALITE
L'information contenue dans ce courrier électronique et ses pièces jointes est confidentielle, et est établie à l'intention exclusive de ses destinataires. Dans le cas où ce message ne vous serait pas destiné, nous vous remercions de bien vouloir en aviser immédiatement l'émetteur et de procéder à sa suppression. Toutes copies, diffusions ou accès non autorisés à ce message sont interdits à toutes personnes, autre que le(s) destinataire(s). Un courrier électronique est susceptible d'altération ou de falsification et peut entrainer des pertes et/ou la destruction de données. Le Groupe ERAMET et/ou ses filiales déclinent toute responsabilité en la matière. En conséquence ce courrier électronique ainsi que ses pièces jointes sont utilisés à votre propre risque.

CONFIDENTIALITY
The information contained in this e-mail and any accompanying documents is confidential or otherwise protected from disclosure. If you are not the intended recipient, please immediately alert the sender by reply e-mail and delete this message and any attachments. Any copy, dissemination or unauthorized access of the contents of this message by anyone other than the intended recipient is strictly prohibited. E-mails may be susceptible to falsification or alteration and cause data corruption

Exhibit 3

IN THE UNITED STATES DISTRICT COURT

FOR THE EASTERN DISTRICT OF WISCONSIN

UNITED STATES OF AMERICA,

Plaintiff

v. Civil Action No.: ____

MAYNARD STEEL CASTING COMPANY,

Defendant.

CONSENT DECREE

TABLE OF CONTENTS

Section		Page
I.	BACKGROUND	1
II.	JURISDICTION AND VENUE	3
III.	APPLICABILITY	4
IV.	DEFINITIONS	5
V.	CIVIL PENALTY	8
VI.	COMPLIANCE REQUIREMENTS	9
	Clean Air Act Requirements	9
	Resource Conservation and Recovery Act Requirements	23
VII.	APPROVAL OF DELIVERABLES	25
VIII.	PERMIT REQUIREMENTS	26
IX.	REPORTING REQUIREMENTS	28
X.	STIPULATED PENALTIES	30
XI.	FORCE MAJEURE	37
XII.	DISPUTE RESOLUTION	39
XIII.	INFORMATION COLLECTION AND RETENTION	42
XIV.	EFFECT OF THE SETTLEMENT/RESERVATION OF RIGHTS	44
XV.	CERTIFICATION	46
XVI.	COSTS	47
XVII.	NOTICES	47
XVIII.	EFFECTIVE DATE	49
XIX.	RETENTION OF JURISDICTION	49

TABLE OF CONTENTS

Section Page

XX. MODIFICATION 50

XXI. TERMINATION 50

XXII. PUBLIC PARTICIPATION 51

XXIII. SIGNATORIES/SERVICE 51

XXIV. APPENDICES 52

XXV. INTEGRATION 52

XXVI. FINAL JUDGMENT 53

LIST OF APPENDICES

Appendix A	Fume Collection System Study
Appendix B	Operations and Maintenance Plan
Appendix C	Electric Arc Furnace – Outdoor Fugitive Emissions Opacity Monitoring Protocol
Appendix D	List of Financial Information Submitted by Defendant for Ability to Pay Analysis
Appendix E	Diagram of RCRA Containment Structure

I. BACKGROUND

A. Plaintiff United States of America, acting on behalf of the United States Environmental Protection Agency ("EPA"), has filed a Complaint concurrently with this Consent Decree. The Complaint alleges that Defendant, Maynard Steel Casting Company ("Defendant" or "Maynard Steel"), violated Section 502 of the Clean Air Act ("CAA") (Title V permits), 42 U.S.C. § 7661a, and the federally approved and enforceable State Implementation Plan ("SIP") adopted by the State of Wisconsin and approved by EPA pursuant to Section 110 of the CAA, 42 U.S.C. § 7410;

B. The Complaint further alleges that Maynard Steel, as an owner and operator of its steel casting facility, violated various provisions of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act ("RCRA"), including Section 3004 (standards applicable to owners and operators of hazardous waste treatment, storage and disposal facilities), 42 U.S.C. § 6924; Section 3005(a) (permits for treatment, storage or disposal of hazardous waste), 42 U.S.C. § 6925(a); and the State of Wisconsin's hazardous waste program authorized by EPA pursuant to RCRA Section 3006, 42 U.S.C. § 6926;

C. On September 26, 2011, EPA issued a CAA Notice and Finding of Violation ("CAA NOV") to Defendant. EPA provided a copy of the CAA NOV to the State of Wisconsin as required by Section 113(a)(1) of the CAA, 42 U.S.C. § 7413(a)(1). On July 3, 2012, EPA issued a RCRA NOV to Defendant, and provided a copy of it to the State of Wisconsin as required by Section 3008(a) of the RCRA, 42 U.S.C. § 6928(a). The United States has provided notice of the commencement of this action to the State of Wisconsin as required by CAA Section 113(b), 42 U.S.C. § 7413(b), and RCRA Section 3008(a), 42 U.S.C. § 6928(a)(2);

D. In its Complaint, the United States alleges, among other things, that Defendant violated the CAA by operating four electric arc furnaces ("EAFs") at its steel foundry in Milwaukee, Wisconsin (the "Facility"), without installing and maintaining pollution control equipment adequate to control emissions of particulate matter within the limits of its federally-enforceable state permit, and as required by the CAA and applicable regulations, resulting in the release of particulate matter that exceeds permissible limits;

E. In its Complaint, the United States further alleges, among other things, that Defendant violated RCRA by: (1) failing to properly handle or dispose of dust containing high levels of chromium, a hazardous waste, produced by the EAFs at its Facility; (2) failing to determine whether the dust was a hazardous waste; and (3) sending the dust to landfills not authorized to accept hazardous waste;

F. The United States alleges claims upon which relief may be granted against Defendant under the CAA and RCRA;

G. In entering into this Consent Decree, Defendant does not admit any liability to the United States arising out of the transactions or occurrences alleged in the Complaint;

H. The United States has reviewed the Financial Information submitted by Defendant to determine whether Defendant is financially able to pay a civil penalty for the violations alleged in the Complaint. Based upon this Financial Information, the United States has determined that Defendant has limited financial ability to pay a civil penalty; and

I. The Parties recognize, and, by entering this Consent Decree, the Court finds that this Consent Decree has been negotiated by the Parties in good faith and will avoid litigation between the Parties and that this Consent Decree is fair, reasonable, and in the public interest.

NOW, THEREFORE, before the taking of any testimony, without the adjudication or admission of any issue of fact or law except as provided in Section II (Jurisdiction and Venue) below, and with the consent of the Parties, IT IS HEREBY ADJUDGED, ORDERED, AND DECREED as follows:

II. JURISDICTION AND VENUE

1. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331, 1345 and 1355; CAA § 113(b), 42 U.S.C. § 7413(b); and RCRA § 3008(a), 42 U.S.C. § 6928(a), and over the Parties. Venue is proper in this district pursuant to CAA § 113(b), 42 U.S.C. § 7413(b); RCRA § 3008(a), 42 U.S.C. §6928(a); and 28 U.S.C. §§ 1391(b) and (c), and 1395(a) because the violations alleged in the Complaint occurred and are occurring in this district, and because Defendant conducts business in this district. Solely for the purposes of this Consent Decree and the underlying Complaint, Defendant waives all objections and defenses that it may have to jurisdiction of this Court or to venue in this District. Defendant shall not challenge the entry of this Consent Decree, the terms of this Consent Decree, or this Court's jurisdiction to enter and enforce this Consent Decree.

2. Defendant agrees that the Complaint states claims upon which relief may be granted pursuant to CAA § 113(b) (CAA federal enforcement provision), 42 U.S.C. § 7413(b); CAA § 502 (Title V permit provision), 42 U.S.C. § 7661a; the federally approved and enforceable SIP adopted by the State of Wisconsin and approved by EPA pursuant to CAA § 110, 42 U.S.C. § 7410; RCRA § 3008 (RCRA federal enforcement provision), 42 U.SC. § 6928; RCRA § 3004 (standards applicable to owners and operators of hazardous waste treatment, storage, and disposal facilities), 42 U.S.C. § 6924; RCRA § 3005(a) (permits for treatment, storage or disposal of hazardous waste), 42 U.S.C. § 6925(a); RCRA § 3006 (authorized State

hazardous waste programs), 42 U.S.C. § 6926; and the State of Wisconsin's hazardous waste program authorized by EPA pursuant to RCRA Section 3006, 42 U.S.C. § 6926.

III. APPLICABILITY

3. The obligations of this Consent Decree apply to and are binding upon the United States and upon Defendant and any of its successors, assigns, or other entities or persons otherwise bound by law.

4. No transfer of ownership or operation of the Facility, whether in compliance with the procedures of this Paragraph or otherwise, shall relieve Defendant of its obligation to ensure that the terms of this Decree are implemented. At least thirty (30) Days prior to such transfer, Defendant shall provide a copy of this Decree to any proposed transferee and shall simultaneously provide written notice of the prospective transfer, together with a copy of the proposed written agreement, to EPA Region 5, the United States Attorney for the Eastern District of Wisconsin, and the United States Department of Justice, in accordance with Section XVII of this Decree (Notices). Any attempt to transfer ownership or operation of the Facility without complying with this Paragraph constitutes a violation of this Decree.

5. Defendant shall provide a copy of this Decree to all officers, directors, employees, and agents whose duties might reasonably include compliance with any provision of this Decree, as well as to any contractor retained to perform work required under this Consent Decree. Defendant shall condition any such contract upon performance of the work in conformity with the terms of this Consent Decree. Relative to Defendant personnel, this condition may be satisfied by posting, in a common area accessible to the personnel noted above, a copy of this Decree or a notice with instructions as to where a copy of this Decree can be obtained for review; and either electronic posting on a Defendant intranet site or distribution to such personnel via e-

mail. Relative to the contractors noted above, this condition may be satisfied by e-mailing a copy of this Decree to the contractor and obtaining an email confirming receipt from the contractor. This condition will terminate concurrent with the time frame established under Section XXI of this Decree.

6. In any action to enforce this Decree, Defendant shall not raise as a defense the failure by any of its officers, directors, employees, agents or contractors to take any actions necessary to comply with the provisions of this Decree.

IV. DEFINITIONS

7. Terms used in this Consent Decree that are defined in the CAA or RCRA, or in regulations promulgated pursuant to the CAA or authorized by RCRA, shall have the meaning assigned to them in the CAA, RCRA, or such regulations, unless otherwise provided in this Decree. Whenever the terms set forth below are used in this Consent Decree, the following definitions shall apply:

a. "Complaint" means the complaint filed by the United States in this action;

b. "Consent Decree" or "Decree" means this Decree and all appendices attached hereto, which are listed in Section XXVIII (Appendices);

c. "Day" means a calendar day unless expressly stated to be a business day. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next business day;

d. "Defendant" means Maynard Steel Casting Company;

e. "Delta Section" means the area where the three EAF electrodes penetrate a furnace cover, and in the case of EAF No. 4, also includes the fume collection system hood, which is the primary inlet to the fume collection system for EAF No. 4.

f. "EAF No. 4" means the EAF placed in service in 1945 and located in the Green Sand Foundry at the Facility;

g. "EAF No. 5" means the EAF placed in service in 1956 and located in the Green Sand Foundry at the Facility;

h. "EAF No. 6" means the EAF placed in service in 1962 and located in the Green Sand Foundry at the Facility;

i. "EAF No. 7" means the EAF placed in service in 1978 and located in the No Bake East End of the Facility;

j. "EPA" means the United States Environmental Protection Agency and any of its successor departments or agencies;

k. "Effective Date" has the definition provided in Section XXII (Effective Date);

l. "Facility" means Defendant's steel processing foundry located at 2856 South 27th Street, Milwaukee, Wisconsin;

m. "Financial Information" means the third-party audited financial statements, corporate tax returns, and other finance related documents that Defendant provided to the United States in support of the assessment of Defendant's limited ability to pay a civil penalty, which are listed in Appendix D of this Decree;

n. “Fume Collection System” or "FCS” means the exhaust ventilation control and capture system for each EAF. For EAF Nos. 5, 6 and 7, the FCS is comprised of a side-draft hood; a telescoping duct that allows the side-draft hood to remain engaged when the EAF tilts; ductwork to a baghouse; a baghouse; fan; and an exhaust stack. For EAF No. 4, the FCS is currently comprised of a furnace cover exhaust hood (with its primary inlet at the Delta Section); ductwork from the furnace cover exhaust hood to a baghouse (without telescoping capability to remain engaged when the EAF is tilted); a baghouse; fan; and an exhaust stack. Additionally, EAF No. 4 has a building roof canopy hood that is intended to capture emissions when the furnace is tilted, which emissions are then ducted to EAF No. 4’s baghouse.

o. “Melt Rate” means the rate at which metal charged to an EAF is turned from a solid to a liquid or molten state. Melt Rate shall be determined from the time an EAF is powered on and melting begins until removal of the electrodes and power off, and includes the refining, slagging and alloying processes associated with an EAF, but does not include time associated with equipment breakdown, delays requiring removal of the electrodes, and/or power off, so long as melting (i.e., active conversion of solid scrap metal to molten metal) does not continue.

p. “PM” means total particulate matter, including PM10 (meaning particulate matter smaller than 10 microns diameter) and PM2.5 (meaning particulate matter smaller than 2.5 microns diameter);

q. “Paragraph” means a portion of this Decree identified by an Arabic numeral.

r. “Parties” means the United States and the Defendant;

s. "Section" means a portion of this Decree identified by a Roman numeral;

t. "State" means the State of Wisconsin; and

u. "United States" means the United States of America, acting on behalf of EPA.

V. CIVIL PENALTY

8. Within thirty (30) Days after the Effective Date of this Consent Decree, Defendant shall pay the first of five (5) consecutive monthly sums of $5,000 each, as a civil penalty, together with interest accruing from the date on which this Consent Decree is lodged with the Court, at the rate specified in 28 U.S.C. § 1961 as of the date of lodging. Each subsequent monthly payment shall be submitted on or before the 15th day of the calendar month. This civil penalty has been determined based on an evaluation of the Financial Information provided by Defendant to the United States, concluding that Defendant has a limited ability to pay a civil penalty.

9. Defendant shall pay the civil penalty due by FedWire Electronic Funds Transfer ("EFT") to the U.S. Department of Justice in accordance with written instructions to be provided to Defendant, following lodging of this Decree, by the Financial Litigation Unit of the United States Attorney's Office for the Eastern District of Wisconsin, 517 E. Wisconsin Ave., Room 530, Milwaukee, Wisconsin, phone number: 414-297-1700. At the time of payment, Defendant shall send a copy of the EFT authorization form and the EFT transaction record, together with a transmittal letter that shall state that the payment is for the civil penalty owed pursuant to this Consent Decree in United States v. Maynard Steel Casting Company and reference the civil action number and DOJ case number 90-5-2-1-10613, to the United States in accordance with

Section XVII of this Decree (Notices); by email to acctsreceivable.CINWD@epa.gov; and by mail to:

EPA Cincinnati Finance Office
26 Martin Luther King Dr.
Cincinnati, Ohio 45268

10. Defendant shall not deduct any penalties paid under this Decree pursuant to this Section or Section X (Stipulated Penalties) in calculating its federal income tax.

VI. COMPLIANCE REQUIREMENTS

Clean Air Act Requirements

11. Defendant currently operates EAF Nos. 5, 6 and 7 at the Facility. As of the date of lodging of this Decree, EAF No. 4 is not operational. Prior to operating EAF No. 4, Defendant shall first inspect and repair as necessary the Delta Section of the associated FCS, and provide written notification to EPA of the results of the inspection and all repairs performed, pursuant to Section XVII (Notices). Once EAF No. 4 is operating, Defendant shall not conduct more than 12 heats in a rolling 12-month period. If Defendant elects to exceed this limit at EAF No. 4, then within one year of exceeding this limit, Defendant shall:

a. install telescoping ductwork to continuously capture emissions at the Delta Section on EAF No. 4 or replace the current local hood with a side-draft hood and telescoping duct to continuously capture emissions at the annular spaces between the electrodes and the furnace cover on EAF No. 4;

b. complete the Fume Collection System Study at EAF No. 4 as described in Paragraphs 28 through 31 of this Decree;

c. implement the compliance provisions in Paragraph 18 (installation of bag leak detection system), Paragraphs 26 and 27 (bag leak detection system monitoring plan), and Paragraph 69 (Permit Requirements Applicable to EAF No. 4) of this Decree; and

d. provide written notification to EPA, consistent with Section XVII (Notices), at least thirty (30) days prior to using EAF No. 4 to conduct more than 12-heats in a rolling 12-month period.

During this one year period, Defendant shall not conduct more than 24 total heats at EAF No. 4 starting from the date on which the 13th heat in the previous 12-month period is conducted.

12. Corrective Actions Completed Since EPA Issued the CAA NOV. As of the date of lodging of this Decree, Defendant has performed certain actions to address the violations alleged in the Complaint, including, but not limited to: (a) repairing and overhauling the EAF baghouses on EAF Nos. 4, 5, 6 and 7; (b) replacing damaged telescoping ductwork on EAF No. 5; (c) replacing the existing enclosing hood with a side-draft hood and telescoping duct on EAF No. 6; (d) rebuilding the slag door on EAF No. 6; (e) installing a telescoping duct on EAF No. 7; and (f) renovating the building roof canopy hood collection system currently in place at EAF No. 4.

13. Capture of EAF Emissions.

a. Defendant shall ensure, to the extent practicable, that the capture efficiency of each of its FCSs is sufficient to reduce or eliminate visible particulate matter ("PM") from the hood-furnace interface, the slag door and the annular spaces around the electrodes.

b. As set forth in Paragraph 7(n) above, the FCS for EAF No. 4 currently differs from that which is employed on EAF Nos. 5, 6 and 7. While EAF No. 4 is operating,

Defendant shall utilize the FCS beginning at the Delta Section as its primary means of capturing emissions from the furnace. Whenever the Delta Section is disconnected while EAF No. 4 is operating, and until such time as the modifications required by Paragraph 11(a) are implemented, Defendant shall, to the extent practicable and as described in the Operation and Maintenance Plan ("O&M Plan") (Appendix B), operate the building roof canopy hood currently in place for EAF No. 4.

14. Defendant shall ensure each FCS as defined under Paragraph 7(n) and as modified at EAF No. 4 under Paragraph 11(a), including related monitoring equipment, is maintained and continually operating while the associated EAF is operating. All leaks discovered in any FCS, shall be promptly repaired in accordance with the Defendant's O&M Plan (Appendix B).

15. Emission Limits for Defendant's Electric Arc Furnaces. When an EAF is operating, Defendant shall capture PM from that EAF and direct such PM to the EAF's associated baghouse. Unless modified by a future Title V Permit or CAA construction permit, emissions from the outlet stack for the EAF baghouse shall not exceed the following levels, as determined by the methodology specified in Paragraphs 33 and 34 below:

a. 1.90 pounds of PM per hour from the stack associated with EAF No. 4;

b. 1.75 pounds of PM per hour from the stack associated with EAF No. 5;

c. 2.38 pounds of PM per hour from the stack associated with EAF No. 6;

and

d. 4.39 pounds of PM per hour from the stack associated with EAF No. 7.

16. Opacity of Emissions from the Facility. Defendant shall not emit any un-captured PM (PM from an EAF not directly vented to its FCS) to the atmosphere from charging, melting, refining or tapping phases and/or PM from pouring operations that exhibit an average opacity

greater than 20 percent for any six minute period as determined using EPA Alternate Method 082 (77 Fed. Reg. 8865, February 15, 2012), or as calculated using EPA Method 9, 40 C.F.R. Pt. 60, Appendix A-4, or in accordance with the Electric Arc Furnace – Outdoor Fugitive Emissions Opacity Monitoring Protocol contained in Appendix C of this Decree.

17. Installation and Operation of Continuous Parametric Monitoring System. Within six (6) months of the Effective Date of this Decree, Defendant shall install, on each of EAF Nos. 5, 6 and 7, a continuous parametric monitoring system ("CPMS") to measure (a) pressure drop across each associated baghouse, and (b) hood static pressure. Within one-hundred eighty (180) days of resuming operations at EAF No. 4, Defendant shall install a CPMS. Defendant shall operate the CPMS at all times that its associated EAF is operating, except as otherwise provided in the O&M Plan.

18. Installation and Operation of Bag Leak Detection System. Within one (1) year of the Effective Date of this Decree, Defendant shall install, commission and calibrate a bag leak detection system with light scattering technology ("BLDS") located at the outlet of each baghouse associated with EAF Nos. 6 and 7. Within five (5) years of the Effective Date of this Decree, Defendant shall install, commission and calibrate a BLDS located at the outlet of the baghouse associated with EAF No. 5, and also with EAF No. 4, if EAF No. 4 is not permanently removed from service within five (5) years of the Effective Date of this Decree.

19. Within ninety (90) days of the Effective Date of this Decree, Defendant shall submit to EPA bid specifications for a scope of work to install a BLDS located at the outlet of each baghouse associated with EAF Nos. 6 and 7.

20. No later than one (1) year of the Effective Date of this Decree, or as otherwise approved in writing by EPA, Defendant shall complete installation of each BLDS associated with EAF Nos. 6 and 7.

21. Within four (4) years of the Effective Date of this Decree, Defendant shall submit to EPA bid specifications for a scope of work to install a BLDS located at the outlet of the baghouse associated with EAF No. 5, and also with EAF No. 4, if EAF No. 4 is not permanently removed from service within five (5) years of the Effective Date of this Decree.

22. No later than five (5) years from the Effective Date of this Decree, or as otherwise approved in writing by EPA, Defendant shall complete installation of the BLDS associated with EAF No. 5, and also with EAF No. 4, if EAF No. 4 is not permanently removed from service within five (5) years of the Effective Date of this Decree.

23. Defendant shall operate the BLDS at all times that its associated EAF is operating.

24. Within ninety (90) days of the Effective Date of this Decree, and consistent with Defendant's O&M Plan (Appendix B), Defendant shall conduct daily clean-side inspections of every operating EAF baghouse, and shall document observations of these inspections. Defendant shall properly repair and perform necessary maintenance noted as a result of each clean side inspection. Clean side inspections shall continue for each EAF until a dedicated BLDS system is installed on each operating EAF.

25. The installation and operation of each BLDS at the Facility shall comply with the requirements in 40 C.F.R. §§ 63.7710(b)(4) and (5), 63.7736(c), 63.7740(b), 63.7741(b) and 63.7743(c)(2).

26. BLDS Monitoring Plan. Defendant shall develop and maintain at the Facility a BLDS Monitoring Plan, the scope of which shall include each BLDS then-installed at the Facility. Within ninety (90) days of completing installation, commissioning and calibration of the BLDS, Defendant shall submit the BLDS Monitoring Plan to EPA for review and approval pursuant to Section VII (Approval of Deliverables) of this Decree. The approved BLDS Monitoring Plan shall be incorporated into the facility's O&M Plan (Appendix B) as required in Paragraphs 54 and 55 of this Decree.

27. Upon EPA's approval of the BLDS Monitoring Plan, Defendant shall operate and maintain each BLDS according to the approved BLDS Monitoring Plan.

28. Electric Arc Furnace Fume Collection System Study. Defendant shall complete testing pursuant to the EAF Fume Collection System Study ("FCS Study") to demonstrate that emissions capture performance for each EAF in operation can be maintained at all times during a heat, at or above an established capture hood static pressure that represents the minimum draw necessary to effectively capture visible PM from that EAF. The FCS Study is attached as Appendix A to this Decree and is divided into two primary components, the Cold Work and the Hot Work.

29. Defendant shall provide EPA written notice at least thirty (30) days prior to each performance monitoring date undertaken as part of the FCS Study, subject to a seven (7) day status and confirmation of the performance monitoring date, so that EPA may observe the performance monitoring, consistent with Section XIII (Information Collection and Retention) of this Decree.

30. Within ten (10) months of the Effective Date of this Decree, or such later date as is approved in writing by EPA based on practical or safety concerns related to seasonal or other

constraints, Defendant shall complete the Cold Work portion (Phase 2A) of the FCS Study for EAF Nos. 5, 6 and 7, and shall submit a written report of Cold Work Findings to EPA for review and approval as provided by Section VII (Approval of Deliverables) and in a manner consistent with Section XVII (Notices) of this Decree.

31. Within one-hundred twenty (120) days of EPA's approval of the Cold Work Findings report described in Paragraph 30, or such later date as is approved in writing by EPA based on the operating status of each EAF, practical, or safety concerns related to seasonal or other constraints, Defendant shall complete Phases 2B and 3 of the FCS Study in accordance with the requirements of Appendix A (FCS Study). Within sixty (60) days of completing Phase 3 of the FCS Study (Appendix A), Defendant shall submit the Final FCS Report, consistent with the reporting requirements identified in the FCS Study, to EPA for review and approval as provided by Section VII (Approval of Deliverables) and consistent with Section XVII (Notices) of this Decree.

32. Initial Performance Tests at the EAF Baghouse Stacks. At the stack associated with each EAF, Defendant shall conduct performance tests to demonstrate compliance with the emission limits in Paragraph 15 above.

33. Within sixty (60) days of its submission of the Final FCS Report, Defendant shall submit to EPA for review and approval a Performance Test Protocol for each operational EAF, pursuant to Section VII (Approval of Deliverables) and in a manner consistent with Section XVII (Notices) of this Decree. The Performance Test Protocol shall specify three (3) performance stack test runs for particulate matter of at least one-hour each using EPA Methods 5 (40 C.F.R. Part 60, App. A-3) and 202 (40 C.F.R. Part 51, Appendix M), unless an alternative or equivalent method is approved, in writing, by the EPA; identify planned production levels; and identify the

name and qualifications of the person conducting the performance test. Defendant shall simultaneously provide the Performance Test Protocol to the Bureau of Air Management, Wisconsin Department of Natural Resources (WDNR) as provided in Section XVII (Notices).

34. Defendant shall conduct each performance test required by this Decree with a minimum average melt rate (in terms of tons of metal per hour) as follows:

a. EAF No. 4: 3.4 tons/hr.

b. EAF No. 5: 3.05 tons/hr.

c. EAF No. 6: 4.6 tons/hr.

d. EAF No. 7: 9.0 tons/hr.

35. Within sixty (60) days following EPA's approval of the Performance Test Protocol, Defendant shall conduct the initial performance test at each EAF included in the Performance Test Protocol.

36. Defendant shall provide EPA and WDNR with written notice, consistent with Section XVII (Notices), at least ten (10) business days prior to the earliest scheduled date for a performance test.

37. Within sixty (60) days of completing the initial performance test for an EAF, Defendant shall submit to EPA and WDNR, consistent with Section XVII (Notices), a report of the performance test results. The report shall describe all steps taken to comply with the Performance Test Protocol, the conditions under which each performance test was carried out, the parameters that were tested, and all results of the performance test(s). The report shall include the EAF melting rates, all supporting heat sheets, and the EAF hood static pressure measurements and baghouse total differential pressure drops at which Defendant operated the EAF and its associated FCS during each performance test. If an initial performance test

demonstrates compliance with the emission limits set forth in Paragraph 15 above, Defendant shall conduct additional stack performance tests as set forth in Paragraphs 40 through 44 below.

38. If an initial performance test fails to demonstrate compliance with the emission limit for that EAF set forth in Paragraph 15, Defendant shall, within thirty (30) days of submitting the written report to EPA and WDNR: (a) determine and correct the cause of the failure and conduct a re-test in accordance with the procedures and requirements set forth in the Performance Test Protocol; and (b) submit to EPA and WDNR, consistent with Section XVII (Notices), a report of the performance test results. If a performance re-test demonstrates compliance with the emission limit for that EAF set forth in Paragraph 15 above, Defendant shall conduct additional stack performance tests as set forth in Paragraphs 40 through 44 below.

39. If a performance re-test fails to demonstrate compliance with the EAF's applicable emission limit set forth in Paragraph 15, then within thirty (30) days of failing the stack performance re-test, Defendant shall submit for review and approval as provided by Section VII (Approval of Deliverables), and consistent with Section XVII (Notices), a plan to achieve continuous compliance with the PM emissions limitation for that EAF. Such plan shall describe any proposed operational restrictions and/or upgrades to the FCS associated with that EAF; and shall include a schedule for achieving continuous compliance with the emission limit for that EAF set forth in Paragraph 15 above and a schedule for conducting a re-test in accordance with the procedures and requirements set forth in the Performance Test Protocol. Within thirty (30) Days of receipt of EPA's approval of this plan, Defendant shall implement the approved plan consistent with the schedules therein.

40. <u>Subsequent Periodic Performance Tests at the Electric Arc Furnace Baghouse Stacks</u>. Subsequent periodic performance tests shall be conducted within four (4) years of the

Effective date of this Decree, and every five (5) years thereafter pursuant to Defendant's permit, as amended pursuant to Paragraph 67 (EAF Nos. 5, 6 and 7) or 69 (EAF No. 4) of this Decree. Each subsequent performance test shall be conducted in accordance with a Performance Test Protocol submitted in accordance with Paragraph 33 above and submitted to EPA and WDNR ninety (90) days prior to the proposed performance test pursuant to Section VII (Approval of Deliverables) and consistent with Section XVII (Notices) of this Decree.

41. Within sixty (60) days of completing each subsequent periodic performance test described in Paragraph 40, Defendant shall submit to EPA and WDNR, consistent with Section XVII (Notices), a report of the performance test results that includes the components set forth in Paragraph 37 above.

42. If any subsequent periodic performance test fails to demonstrate compliance with the applicable emissions limit for that EAF set forth in Paragraph 15, Defendant shall, within thirty (30) days of issuance of the performance test report, determine and correct the cause of the failure, and then conduct a re-test in accordance with the procedures, schedule and requirements set forth in the Periodic Performance Test Protocol.

43. If any subsequent periodic performance re-test fails to demonstrate compliance with the emissions limit for that EAF set forth in Paragraph 15, then within thirty (30) days after the failed re-test, Defendant shall submit to EPA for review and approval a plan to achieve continuous compliance with the emissions limit for that EAF. Such plan shall include the components set forth in Paragraph 39 above. Within thirty (30) Days of receipt of EPA's approval of the plan, Defendant shall implement the approved plan consistent with the schedule therein.

44. Opacity Observations During Stack Performance Tests. During each stack performance test performed under this Decree, Defendant shall simultaneously conduct visible opacity observations as specified in Paragraph 46 below.

45. Outdoor Opacity Observations. Within six (6) months of the Effective Date of this Consent Decree, or such later date as is approved in writing by EPA based on practical or safety concerns related to seasonal or other constraints, including unforeseen equipment difficulties (*e.g.*, hardware/software breakdown, challenges with processing of captured images, etc.), Defendant shall commence conducting visual opacity observations to demonstrate compliance with the outdoor opacity limit in Paragraph 16, above. Outdoor opacity observations shall be conducted for fifteen (15) heats completed over the course of six (6) consecutive months at each of EAF Nos. 6 and 7, and twelve (12) consecutive months at EAF No. 5. Within six (6) months of bringing EAF No. 4 into operation, or such later date as is approved in writing by EPA based on practical or safety concerns related to seasonal or other constraints, including unforeseen equipment difficulties that prohibit obtaining a valid opacity observation (*e.g.*, hardware/ software breakdown, challenges with processing of captured images, etc.), Defendant shall commence conducting visual opacity observations for fifteen (15) heats to be completed over the course of twenty-four (24) consecutive months at EAF No. 4 to demonstrate compliance with the opacity limit in Paragraph 16, above. Thereafter, until termination of this Decree, the Defendant shall conduct one (1) opacity observation every six (6) months at each then-operating EAF.

46. All opacity observations shall be based on the methodology provided in Appendix C of this Decree, the EAF – Outdoor Fugitive Emissions Opacity Monitoring Protocol. As provided for in Appendix C of this Decree, Defendant shall obtain, install and operate at least

two remotely monitored cameras certified for opacity readings under EPA Alternate Method 082 that shall be used to record opacity from specified locations at the Facility. Each opacity observation conducted pursuant to this Decree shall be conducted at one or more of the locations specified in Appendix C for a minimum of six (6) consecutive minutes to include the entire tapping and refining phases of the heat, regardless of the length of each phase.

47. All opacity observations conducted pursuant to this Decree shall be conducted on consecutive heats, unless weather conditions are such that background lighting is insufficient to obtain an accurate observation, or other unforeseen equipment difficulties prohibit obtaining a valid opacity observation (*e.g.*, hardware/software breakdown, challenges with processing of captured images, etc.). Defendant shall document such qualifying weather and/or equipment conditions and provide this documentation within ten (10) Days of EPA's request. All successfully completed opacity observations shall be counted toward the minimum required total number of observations specified in Paragraph 45, even if the opacity observation was conducted during non-consecutive heats.

48. Nighttime Opacity Observations. When opacity observations are conducted at night (from sunset to sunrise), the Defendant shall use a certified camera (EPA Alternate Method 082) to conduct visual opacity observations for each nighttime heat to be observed, according to the requirements in Paragraphs 47. As a contingency in the event that a certified camera (EPA Alternate Method 082) is not functioning properly (*e.g.*, due to related hardware and/or software issues, backlighting issues and/or other unforeseen factors), an observer certified by the California Air Resources Board ("CARB") to conduct nighttime opacity observations may conduct the visual opacity observations. Within ninety (90) days of the Effective Date of this Consent Decree, Defendant shall provide EPA for review and approval site-specific lighting

plans for: (1) conducting nighttime opacity observations with a certified observer; and (2) conducting nighttime opacity readings using a certified camera.

49. Daytime Opacity Observations. When melting operations are conducted during daylight (after sunrise and prior to sunset), Defendant shall use a certified camera (EPA Alternate Method 082) to conduct visual opacity observations for each heat to be observed. Alternatively, in accordance with the protocol provided in Appendix C, a certified Method 9 observer may conduct the visual opacity observations consistent with Method 9.

50. Consequence for Opacity Exceedance. In the event of an opacity exceedance, Defendant shall determine and correct the cause of the exceedance in accordance with the O&M Plan (Appendix B of this Decree).

51. Air Quality Modeling. After completing the performance tests required for EAF Nos. 5, 6 and 7 under Paragraph 32, Defendant shall perform dispersion modeling of Defendant's PM10 emissions from the Facility using the AERMOD modeling system. AERMOD modeling shall be performed using the maximum emissions generating scenario for the Facility and the most recent performance test data for each EAF as obtained pursuant to this Decree.

52. Within thirty (30) days of completing the performance tests required under Paragraph 32, and prior to performing the AERMOD modeling required by Paragraph 51, Defendant shall submit a AERMOD Modeling Protocol ("Modeling Protocol") to EPA for review and approval pursuant to Section VII (Approval of Deliverables) and consistent with Section XVII (Notices) of this Decree. Defendant shall simultaneously submit the Modeling Protocol to Air Pollution Control, WDNR consistent with Section XVII (Notices). The Modeling Protocol shall describe in detail the proposed modeling methods and procedures, the

source types and release parameters, maximum emission rate calculations, associated methodology, and the schedule for conducting the modeling.

53. Defendant shall perform the dispersion modeling in accordance with the approved Protocol and approved schedule therein. Within thirty (30) days after the completion of the AERMOD modeling, Defendant shall submit a complete report of the results to EPA for review and approval pursuant to Section VII (Approval of Deliverables) and consistent with Section XVII (Notices) of this Decree.

54. Facility Operations and Maintenance Plan ("O&M Plan"). Concurrent with submittal of the Final FCS Report described in Paragraph 31, Defendant shall amend the O&M Plan as necessary and in accordance with 40 C.F.R. § 63.7710(b). Defendant shall submit the Final FCS Report, together with the O&M Plan, to EPA for review and approval pursuant to Section VII (Approval of Deliverables) of this Decree. Defendant shall submit any proposed changes to the O&M Plan to EPA for review and approval in accordance with Section VII (Approval of Deliverables) for the duration of this Decree.

55. Upon EPA's approval of the O&M Plan, Defendant shall, at all times, operate each FCS associated with EAF Nos. 5, 6 and 7 at its Facility in accordance with the O&M Plan. The FCS associated with EAF No. 4 shall also be operated in accordance with the O&M Plan if EAF No. 4 resumes operating.

56. Startup, Shutdown and Malfunction Plan. Defendant's Startup, Shutdown and Malfunction ("SSM Plan") is included as Appendix B to this Decree. Until the now-current SSM Plan is revised, Defendant shall operate its Facility at all times in accordance with this SSM Plan.

57. Concurrent with Defendant's submission of the Final FCS Report, Defendant shall revise as necessary the SSM Plan, in accordance with 40 C.F.R. § 63.6(e)(3), and submit the revised SSM Plan to EPA for review and approval pursuant to Section VII (Approval of Deliverables) and consistent with Section XVII (Notices) of this Decree. The revised SSM Plan shall be incorporated into Defendant's O&M Plan described in Paragraph 54 of this Decree upon EPA's approval of the revised SSM Plan. Defendant shall submit any changes to the SSM Plan to EPA for review and approval pursuant to Section VII (Approval of Deliverables) and consistent with Section XVII (Notices) for the duration of this Decree. If EPA does not respond to Defendant with comments or approval within forty-five (45) days, Defendant shall operate its Facility at all times in accordance with the most recent revised SSM Plan that was submitted to EPA.

Resource Conservation and Recovery Act

58. Defendant shall at all times comply with federal and state laws and regulations governing generation, treatment, storage, and disposal of hazardous wastes, including the land disposal of hazardous waste. Defendant shall comply with RCRA §§ 3002, 3004 and 3005, 42 U.S.C. §§ 6922, 6924 and 6925; and Wisconsin Administrative Code ("WAC") NR 662, 665, 668 and 670, 40 C.F.R. Parts 262, 265, 268 and 270.

59. Corrective Actions Completed Since EPA Issued the RCRA NOV. On November 12, 2013, Defendant submitted to WDNR a closure plan for five hazardous waste storage areas associated with EAF baghouse dust at the Facility ("Closure Plan"). The Closure Plan was prepared to meet the closure requirements of Wisconsin's authorized RCRA program at WAC NR 665, Subpart G, and 40 C.F.R. Part 265, Subpart G. WDNR gave preliminary approval to the Closure Plan, and Defendant subsequently submitted a closure report to WDNR documenting

the actions taken to complete closure of the EAF dust storage areas. The closure report stated that decontamination of the five hazardous waste storage areas was completed on November 26, 2013. On February 14, 2014, WDNR notified Defendant that it considers Defendant to have completed all actions concerning the EAF dust storage areas as required by the WDNR RCRA closure requirements.

60. Other Corrective Action Completed Since October 2009 When Analytical Results Showed that EAF Dust Is a Hazardous Waste. On July 30, 2012, Defendant submitted to EPA a letter addressing the violations alleged by EPA in its July 3, 2012 RCRA NOV. The letter describes the actions the Defendant has taken to comply with the standards applicable to generators of hazardous waste at WAC NR Part 662 (40 C.F.R. Part 262). Among other things, Defendant has performed the following actions: (a) conducted initial RCRA training for its employees; (b) prepared a hazardous waste contingency plan and distributed it to appropriate local authorities; (c) maintained and operated the Facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste; (d) accumulated the EAF dust in containers that satisfy the requirements of WAC NR 662.034(1)(a)(1) and Subpart I of WAC NR 665; (e) shipped and manifested EAF dust off-site within ninety (90) days of being generated; (f) provided a one-time notification to each treatment or storage facility receiving EAF dust originating from the Facility; and (g) implemented a policy to routinely re-analyze the Facility's EAF dust every two years, or sooner.

61. Containment of EAF Dust. The Defendant has completed construction of a steel containment structure to surround each of the supersacks that capture dust from the four (4) EAF baghouses at the Facility. The supersacks are connected to and located beneath the dust

collectors associated with EAF Nos. 4, 5, 6 and 7. Defendant shall at all times use and maintain each containment structure. A diagram of the containment structure is attached in Appendix E.

VII. APPROVAL OF DELIVERABLES

62. After review of any plan, report or other item that is required to be submitted pursuant to this Decree, EPA shall in writing: (a) approve the submission; (b) approve the submission upon specified conditions; (c) approve part of the submission and disapprove the remainder; or (d) disapprove the submission.

63. If the submission is approved pursuant to Section VII (Approval of Deliverables), Defendant shall take all actions required by the plan, report or other document, in accordance with the schedules and requirements of the plan, report or other document, as approved. If the submission is conditionally approved or approved only in part, pursuant to Section VII (Approval of Deliverables), Defendant shall, upon written direction from EPA, take all actions required by the approved plan, report or other item that EPA determines are technically severable from any disapproved portions, subject to Defendant's right to dispute only the specified conditions or the disapproved portions under Section XV of this Decree (Dispute Resolution).

64. If the submission is disapproved in whole or in part pursuant to Section VII (Approval of Deliverables), Defendant shall, within thirty (30) Days or such other time as the Parties agree to in writing, correct all deficiencies and resubmit the plan, report or other item, or disapproved portion thereof, for approval by EPA. If the resubmission is approved in whole or in part, Defendant shall proceed in accordance with the preceding Paragraph.

65. Any stipulated penalties applicable to the original submission, as provided in Section X (Stipulated Penalties) of this Decree, shall accrue during the 30 Day period or other specified period, but shall not be payable unless the resubmission is untimely or is disapproved

in whole or in part; provided that, if the original submission was so deficient as to constitute a material breach of Defendant's obligations under this Decree, the stipulated penalties applicable to the original submission shall be due and payable notwithstanding any subsequent resubmission. Any approval of a report by EPA before the Effective Date is effective and binding under this Decree upon entry.

66. If a resubmitted plan, report or other item, or portion thereof, is disapproved in whole or in part, EPA may again require Defendant to correct any deficiencies in accordance with the preceding Paragraphs in this Section, or may itself correct any deficiencies, subject to Defendant's right to invoke Dispute Resolution and the right of EPA to seek stipulated penalties as provided in the preceding Paragraphs in this Section.

VIII. PERMIT REQUIREMENTS

67. Within one-hundred twenty (120) days of the first compliant performance test at EAF Nos. 5, 6 and 7, Defendant shall submit to WDNR an application to incorporate into an applicable federally-enforceable minor or major construction permit, or other permit that will ensure that the following requirements apply to the Facility and survive the termination of this Consent Decree under Section XXV (Termination):

a. the operating limits for EAF No. 4 set forth in Paragraphs 11 and 13;

b. the emission limit for each EAF described in Paragraph 15;

c. the opacity limit described in Paragraph 16;

d. the CPMS operating requirements described in Paragraph 17;

e. the BLDS operating and monitoring requirements described in Paragraphs 23, 25 and 27;

f. the minimum melt rates for performance testing in Paragraph 34;

g. performance testing at each operating EAF once every five (5) years, beginning five (5) years from the date of the last performance test conducted under this Decree;

h. the approved opacity monitoring procedure described in Paragraph 46 and the requirement to conduct one (1) opacity observation every six (6) months at each then-operating EAF; and,

i. the O&M plan approved by EPA in Paragraph 55.

68. Following submission of the complete permit application, Defendant shall promptly submit to WDNR all available information that WDNR seeks following its receipt of the permit application. Promptly upon issuance of such permit or in conjunction with issuance of the permit, Defendant shall file any applications necessary to incorporate the requirements of those permits into any Title V Permit that may be required to operate the Facility.

69. Additional Permit Requirements Related to EAF No. 4.

a. Notwithstanding any required notice of startup of EAF No. 4 in Paragraph 11, Defendant shall obtain all applicable permits prior to operating EAF No. 4.

b. If at any time during the term of this Decree Defendant elects to permanently retire EAF No. 4, then Defendant shall amend its federally-enforceable minor or major construction permit and Title V operating permit to remove EAF No. 4 and shall no longer operate EAF No. 4.

c. If at any time during the term of this Decree Defendant elects to operate EAF No. 4 in a manner that exceeds the maximum operating constraints identified in Paragraph 11, then prior to such operation, Defendant shall upgrade the now-existing FCS as described in Paragraph 11, install a BLDS as provided in Paragraph 18, and amend its federally-enforceable minor or major construction permit and Title V operating permit to reflect these conditions.

d. If Defendant elects to maintain the operating constraints provided for EAF No. 4 in Paragraph 11 when it requests termination of this Decree, then Defendant shall apply to amend its permit to permanently establish these operational constraints.

70. Defendant shall submit a copy of any application for any air permit or air permit amendment required by this Decree (or any related correspondence) to EPA consistent with Section XVII (Notices) simultaneous with the application or correspondence submitted to WDNR. Within fifteen (15) Days of receipt of any draft or final air permit, Defendant shall provide a copy of the same to EPA consistent with Section XVII (Notices).

71. Defendant shall submit a copy of this Decree to WDNR with any applications for permits or permit amendments required by this Decree.

72. Where any compliance obligation under this Section requires Defendant to obtain a federal, state or local permit or approval, Defendant shall submit timely and complete applications and take all other actions necessary to obtain all such permits or approvals. Defendant may seek relief under the provisions of Section XIV of this Consent Decree (Force Majeure) for any delay in the performance of any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation, if Defendant has submitted timely and complete applications and has taken all other actions necessary to obtain all such permits or approvals.

IX. REPORTING REQUIREMENTS

73. Beginning six (6) months after the Effective Date of this Decree, and every six (6) months thereafter until termination of this Decree pursuant to Section XXV (Termination), Defendant shall submit to EPA a Semi-Annual Status Report describing the status of any construction or compliance measures required by this Decree. The Semi-Annual Status Report

shall include a description of any non-compliance with the requirements of this Decree and an explanation of the likely cause of the violation and of the remedial steps taken, or to be taken, to correct, prevent or minimize the future probability or adverse effects of such violation.

74. If Defendant violates, or has reason to believe that it may violate, any requirement of this Consent Decree, Defendant shall submit a Report of Non-Compliance and notify the United States of such violation and its likely duration, in writing, within fourteen (14) Days of the Day that Defendant first becomes aware of the violation or potential violation, with an explanation of the likely cause of the violation and of the remedial steps taken, or to be taken, to correct, prevent or minimize the future probability or adverse effects of such violation. If the cause of a violation cannot be fully explained at the time the report is due, Defendant shall so state in the Report. Defendant shall investigate the cause of the violation and shall then submit an amendment to the report, including a full explanation of the cause of the violation, within thirty (30) Days of the Day Defendant becomes aware of the cause of the violation. Nothing in this Paragraph or the following Paragraph relieves Defendant of its obligation to provide the notice required by Section XIV of this Decree (Force Majeure) if Defendant elects to invoke Force Majeure.

75. Whenever any violation of this Decree, or of any applicable permits, or any other event affecting Defendant's performance under this Decree, or the performance of its Facility, may pose an immediate threat to the public health or welfare or the environment, Defendant shall notify EPA via telephone or email as soon as possible, but no later than twenty-four (24) hours after Defendant first became aware of the violation or event. This procedure is in addition to the written reporting requirements set forth in the preceding Paragraph.

76. All reports submitted pursuant to the preceding three Paragraphs shall be submitted to the persons designated in Section XVII (Notices) of this Decree. Each report submitted by Defendant under this Section shall be signed by an official of the submitting party and include the following certification:

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

This certification requirement does not apply to emergency or similar notifications where compliance would be impractical.

77. The reporting requirements of this Consent Decree do not relieve Defendant of any reporting obligations required by the CAA or RCRA, or the implementing regulations of these Acts, or by any other federal, state or local law, regulation, permit or other requirement.

78. Any information provided pursuant to this Consent Decree may be used by the United States in any proceeding to enforce the provisions of this Decree and as otherwise permitted by law.

X. STIPULATED PENALTIES

79. Defendant shall be liable for stipulated penalties to the United States for violations of this Consent Decree as specified below, unless excused under Section XIV (Force Majeure). A violation includes failing to perform any obligation required by the terms of this Decree, including any work plan or schedule approved under this Decree, according to all applicable requirements of this Decree and within the specified time schedules established by or

approved under this Decree. Payment by Defendant of stipulated penalties shall not in and of itself constitute an admission of a violation of the Consent Decree.

80. The following stipulated penalty shall accrue per violation per Day for violation of the requirements identified in Paragraphs 15(a), 15(b), 15(c) and 15(d) related to the pounds per hour of PM that may be emitted from any EAF stack:

Penalty per Violation per Day	Period of Noncompliance
$500(x)	Day 1 through 50 after a failed stack test
$2,000(x)	Day 51 through 99 after a failed stack test
$3,000(x)	Day 100 and over after a failed stack test

a. where x derives from the degree of deviation from the emission limit at Paragraph 15(a), 1.90 pounds of PM per hour from the stack associated with EAF No. 4, consistent with Paragraph 15, as follows:

For emissions between 1.91 and 2.85 lbs./hr., x = 1

For emissions between 2.86 and 3.80 lbs./hr., x = 2

For emissions between 3.81 and 5.70 lbs./hr., x = 3

For emissions equal to or greater than 5.71 lbs./hr., x = 4

b. where x derives from the degree of deviation from the emission limit at Paragraph 15(b), 1.75 pounds of PM per hour from the stack associated with EAF No. 5 consistent with Paragraph 15, as follows:

For emissions between 1.76 and 2.63 lbs./hr., x = 1

For emissions between 2.64 and 3.50 lbs./hr., x = 2

For emissions between 3.51 and 5.25 lbs./hr., x = 3

For emissions equal to or greater than 5.26 lbs./hr., x = 4

c. where x derives from the degree of deviation from the emission limit at Paragraph 15(c), 2.38 pounds of PM per hour from the stack associated with EAF No. 6 consistent with Paragraph 15, as follows:

For emissions between 2.39 and 3.57 lbs./hr., x = 1

For emissions between 3.58 and 4.76 lbs./hr., x = 2

For emissions between 4.77 and 7.14 lbs./hr., x = 3

For emissions equal to or greater than 7.15 lbs./hr., x = 4

d. where x derives from the degree of deviation from the emission limit at Paragraph 15(d), 4.39 pounds of PM per hour from the stack associated with EAF No. 7 consistent with Paragraph 15, as follows:

For emissions between 4.40 and 6.59 lbs./hr., x = 1

For emissions between 6.60 and 8.78 lbs./hr., x = 2

For emissions between 8.79 and 13.17 lbs./hr., x = 3

For emissions equal to or greater than 13.18 lbs./hr., x = 4

e. For rounding, see Memorandum from William G. Laxton and John S. Seitz to New Source Performance Standards/National Emission Standards for Hazardous Pollutants Compliance Contacts "Performance Test Calculation Guidelines" (June 6, 1990).

f. Pursuant to CAA Section 113(e)(2), penalties shall accrue from the date of the failed stack test up to, but not including, the date on which Defendant demonstrates compliance with the emission limit in Paragraph 15 through a subsequent stack test, not including any day on which the non-compliant EAF is not operating or Defendant can prove by a preponderance of the evidence that there were intervening days during which no violation occurred or that the violation was not continuing in nature.

81. The following stipulated penalties shall accrue per violation per Day for a violation of the outside opacity standard identified in Paragraph 16:

Penalty per Violation per Day	Opacity Value
$250	21% - 30%
$1,000	31% - 40%
$1,500	≥ 41%

82. The following stipulated penalties shall accrue per violation per Day for any failure to meet any of the requirements identified in Paragraphs 17 (the provision on CPMS installation requirements only) 18, 19, 20, 21, 22, 24, 25 and 26 (BLDS requirements); Paragraphs 28 through 31 (EAF FCS Test requirements); Paragraphs 32 through 43 (performance test requirements); Paragraphs 44 through 49 (opacity observation requirements); Paragraph 50 (consequences of opacity exceedances); Paragraphs 51 through 53 (prepare and submit a modeling protocol, perform AERMOD modeling, and submit a final modeling report); Paragraph 54 (Submission of O&M Plan); and Paragraph 57 (Revision of SSM Plan):

Penalty per Violation per Day	Period of Noncompliance
$250	Day 1 through 15
$1,000	Day 16 through 30
$1,500	Day 31 and beyond

83. The following stipulated penalties shall accrue per violation per Day for any failure to meet any of the operating requirements identified in Paragraph 11 (EAF No. 4 operating requirements); Paragraph 17 (the provision on CPMS operating requirements only); Paragraphs 23 and 27 (BLDS operating requirements); Paragraph 55 (O&M Plan operating

requirements); Paragraphs 56-57 (SSM Plan operating requirements); and Paragraph 60 (containment of EAF dust):

Penalty per Violation per Day	Period of Noncompliance
$250	Day 1 through 15
$2,000	Day 16 through 30
$4,000	Day 31 and beyond

84. The following stipulated penalties shall accrue per violation per Day for each violation of the reporting requirements of Section IX (Reporting Requirements) of this Consent Decree:

Penalty per Violation per Day	Period of Noncompliance
$500	Day 1 through 15
$1,000	Day 16 through 30
$1,500	Day 31 and beyond

85. The following stipulated penalties shall be applicable for failing to meet any other requirement of this Consent Decree (aside from those specified by Paragraphs 80 through 84 above).

Penalty per Violation per Day	Period of Noncompliance
$250	Day 1 through 15
$500	Day 16 through 30
$1,000	Day 31 and beyond

86. Late Payment of Civil Penalty. If Defendant fails to pay the civil penalty required to be paid under Section V of this Decree (Civil Penalty) when due, Defendant shall pay a stipulated penalty of $1,000 per Day for each Day that the payment is late.

87. Stipulated penalties under this Section shall begin to accrue on the Day after performance is due or on the Day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the violation ceases. Stipulated penalties shall accrue simultaneously for separate violations of this Decree.

88. Defendant shall pay any stipulated penalty within thirty (30) Days of receiving the United States' written demand except to the extent that Defendant invokes dispute resolution for alleged violations. Any demand for the payment of stipulated penalties will identify the particular violation(s) to which the stipulated penalty relates, the dates of violation, the stipulated penalty amount the United States is demanding for each violation, the calculation method underlying the demand and the grounds upon which the demand is based.

89. The United States may, in the unreviewable exercise of its discretion, reduce or waive stipulated penalties otherwise due it under this Decree.

90. Stipulated penalties shall continue to accrue, as provided in Paragraphs 79-86, during any Dispute Resolution, but Defendant need not pay until the following:

a. If the dispute is resolved by concession of the Defendant, agreement of the Parties, or by a decision of EPA that is not appealed to the Court, Defendant shall pay the accrued penalties demanded, together with interest, to the United States within thirty (30) Days of the effective date of such concession, agreement or the receipt of EPA's decision or order.

b. If the dispute is appealed to the court and the United States prevails in whole or in part, Defendant shall pay all accrued penalties determined by the court to be owing,

together with interest, within sixty (60) days of the court's decision or order, except as provided in subparagraph c, below.

c. If any party appeals the court's decision, Defendant shall pay all accrued penalties as ordered by the court, together with interest, within fifteen (15) days of the date of final adjudication of the dispute.

d. If EPA issues a demand for stipulated penalties and defendant does not dispute a portion of the demand, or the parties resolve a portion of the demand, then defendant shall pay the accrued stipulated penalties associated with the undisputed or resolved portion, together with interest, to the United States, within thirty (30) days of the resolution.

91. Upon the Effective Date of this Consent Decree, the stipulated penalty provisions of this Decree shall be enforceable.

92. Defendant shall pay stipulated penalties owing to the United States in the manner set forth and with the confirmation notices required by Paragraph 9, except that the transmittal letter shall state that the payment is for stipulated penalties and shall identify the violation(s) for which the penalties are being paid. If Defendant fails to pay stipulated penalties according to the terms of this Decree, Defendant shall be liable for interest on such penalties, as provided for in 28 U.S.C. § 1961, accruing as of the date payment became due. Nothing in this Paragraph shall be construed to limit the United States from seeking any remedy otherwise provided by law for Defendant's failure to pay any stipulated penalties.

93. Subject to the provisions of Section XVIII of this Decree (Effect of Settlement/ Reservation of Rights), the stipulated penalties provided for in this Decree shall be in addition to any other rights, remedies or sanctions available to the United States for Defendant's violation of this Consent Decree or applicable law. Where a violation of this Decree is also a violation of the

CAA or RCRA, any of their implementing regulations, or any permit issued to Defendant pursuant to either the CAA or RCRA, Defendant shall be allowed a credit, for any stipulated penalties paid, against any statutory penalties imposed for such violation.

XI. FORCE MAJEURE

94. Force majeure, for purposes of this Decree, is defined as any event arising from causes beyond the control of Defendant, of any entity controlled by Defendant, or of Defendant's contractors, which delays or prevents the performance of any obligation under this Decree despite Defendant's best efforts to fulfill the obligation. The requirement that Defendant exercise best efforts to fulfill the obligation includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any such event (a) as it is occurring and (b) after it has occurred to "prevent or minimize any resulting delay to the greatest extent possible. "Force Majeure" does not include Defendant's financial inability to perform any obligation under this Decree.

95. If any event occurs or has occurred that may delay the performance of any obligation under this Decree, whether or not caused by a force majeure event, Defendant shall provide notice via telephone or email to Greg Gehrig, EPA Region 5 Air and Radiation Division, at 312-886-4434 or gehrig.greg@epa.gov within seventy-two (72) hours of when Defendant first knew that the event might cause a delay. Within five (5) days of providing such notice, Defendant shall provide in writing to EPA an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementing any measures to be taken to prevent or mitigate the delay or the effect of the delay; Defendant's rationale for attributing such delay to a force majeure event, if it intends to assert such a claim; and a statement as to whether, in the opinion of

Defendant, such event may cause or contribute to an endangerment to public health, welfare, or the environment. Defendant shall include with any notice all available documentation supporting the claim that the delay was attributable to a force majeure. Failure to comply with the above requirements shall preclude Defendant from asserting any claim of force majeure for that event for the period of time of such failure to comply, and for any additional delay caused by such failure. Defendant shall be deemed to know of any circumstance of which Defendant, any entity controlled by Defendant, or Defendant's contractors knew or should have known.

96. If EPA agrees that the delay or anticipated delay is attributable to a force majeure event, the time for performance of the obligations under this Decree that are affected by the force majeure event will be extended by EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the force majeure event shall not, of itself, extend the time for performance of any other obligation. EPA will notify Defendant in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure event.

97. If EPA does not agree that the delay or anticipated delay has been or will be caused by a force majeure event, EPA will notify Defendant in writing of its decision.

98. If Defendant elects to invoke the dispute resolution procedures set forth in Section XV (Dispute Resolution), it shall do so no later than ten (10) Days after receipt of EPA's notice of its decision regarding an extension related to a force majeure event. In any such proceeding, Defendant shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Defendant complied

with the requirements of Paragraph 94. If Defendant carries this burden, the delay at issue shall be deemed not to be a violation by Defendant of the affected obligation of this Decree identified to EPA and the Court.

XII. DISPUTE RESOLUTION

99. Except as otherwise expressly provided for in Section VIII (Permit Requirements) of this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Decree. Defendant's failure to seek resolution of a dispute under this Section shall preclude Defendant from raising any such issue as a defense to an action by the United States to enforce any obligation of Defendant arising under this Decree.

100. Informal Dispute Resolution. Any dispute subject to Dispute Resolution under this Consent Decree shall first be the subject of informal negotiations. The dispute shall be considered to have arisen when Defendant sends the United States a written Notice of Dispute. Such Notice of Dispute shall state clearly the matter in dispute. The period of informal negotiations shall not exceed twenty (20) Days from the date the dispute arises, unless that period is modified by written agreement. If the Parties cannot resolve a dispute by informal negotiations, then the position advanced by the United States shall be binding on Defendant unless, within five (5) Days after the conclusion of the informal negotiation period, Defendant invokes formal dispute resolution procedures as set forth below.

101. Formal Dispute Resolution. Defendant shall invoke formal dispute resolution procedures, within the time period provided in the preceding Paragraph, by serving on the United States a written Statement of Position regarding the matter in dispute. The Statement of Position

shall include, but need not be limited to, any factual data, analysis or opinion supporting Defendant's position and any supporting documentation relied upon by Defendant.

102. The United States shall serve its Statement of Position within thirty (30) Days of receipt of Defendant's Statement of Position. The United States' Statement of Position shall include, but need not be limited to, any factual data, analysis or opinion supporting that position and any supporting documentation relied upon by the United States. The United States' Statement of Position shall be binding on Defendant, unless Defendant files a motion for judicial review of the dispute in accordance with this Section.

103. An administrative record of the dispute shall be maintained by EPA and shall contain all Statements of Position, including supporting documentation, submitted pursuant to this Section. Where appropriate, EPA may allow submission of supplemental statements of position by the parties to the dispute.

104. Judicial Review. Defendant may seek judicial review of the dispute by filing with the Court and serving on the United States, consistent with Section XVII (Notices) of this Decree, a motion requesting judicial resolution of the dispute. The motion must be filed within twenty (20) Days of receipt of the United States' Statement of Position pursuant to the preceding Paragraph. The motion shall contain a written statement of Defendant's position on the matter in dispute, including any supporting factual data, analysis, opinion, or documentation, and shall set forth the relief requested and any schedule within which the dispute must be resolved for orderly implementation of this Decree.

105. The United States shall respond to Defendant's motion within the time period allowed by the Local Rules of this Court. Defendant may file a reply memorandum to the extent permitted by this Court's Local Rules.

106. Standard of Review For Disputes Concerning Matters Accorded Record Review. Except as otherwise provided in this Decree, in any dispute brought under Paragraph 101 (Formal Dispute Resolution) pertaining to the adequacy or appropriateness of plans, procedures to implement plans, schedules or any other items requiring EPA's approval under this Consent Decree, not to include Defendant's obligation to seek any modified or new air permits; the adequacy of the performance of work undertaken pursuant to this Decree; and all other disputes that are accorded review on the administrative record under applicable principles of administrative law, Defendant shall have the burden of demonstrating, based on the administrative record, that the position of the United States is arbitrary and capricious or otherwise not in accordance with law.

107. Standard of Review for Other Disputes. Except as otherwise provided in this Decree, in any other dispute brought under Paragraph 101 (Formal Dispute Resolution), Defendant shall bear the burden of demonstrating that its position complies with and furthers the objectives of this Decree.

108. The invocation of dispute resolution procedures under this Section shall not, by itself, extend, postpone or affect in any way any obligation of Defendant under this Decree, unless and until final resolution of the dispute so provides. Stipulated penalties with respect to the disputed matter shall continue to accrue from the first Day of noncompliance, but payment shall be stayed pending resolution of the dispute as provided in Section XV (Dispute Resolution). If Defendant does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section X (Stipulated Penalties).

XIII. INFORMATION COLLECTION AND RETENTION

109. The United States and its representatives, including attorneys, contractors and consultants, shall have the right of entry into the Facility covered by this Decree, at all reasonable times, upon presentation of credentials, to:

a. monitor the progress of activities required under this Decree;

b. verify any data or information submitted to the United States in accordance with the terms of this Decree;

c. obtain samples and, upon request, splits of any samples taken by Defendant or its representatives, contractors, or consultants;

d. obtain documentary evidence, including photographs and similar data; and

e. assess defendant's compliance with this decree

110. Upon request, Defendant shall provide to EPA, or its authorized representative, splits of any samples taken by Defendant. Upon request, EPA shall provide to Defendant splits of any samples taken by EPA.

111. Until three years after the termination of this Decree, Defendant shall retain, and shall instruct its contractors and agents to preserve, all non-identical copies of all documents, records or other information (including documents, records, or other information in electronic form) in its or its contractors' or agents' possession or control, or that come into its or its contractors' or agents' possession or control, that relate in any manner to Defendant's performance of its obligations under this Decree. This information retention requirement shall apply regardless of any contrary corporate or institutional policies or procedures. At any time during this information retention period, upon request by the United States, Defendant shall

provide copies of any documents, records, or other information required to be maintained under this Paragraph.

112. At the conclusion of the information retention period provided in the preceding Paragraph, Defendant shall notify the United States at least ninety (90) Days prior to the destruction of any documents, records or other information subject to the requirements of the preceding Paragraph, and, upon request by the United States, Defendant shall deliver any such documents, records or other information to EPA. Defendant may assert that certain documents, records or other information is privileged under the attorney-client privilege or any other privilege recognized by federal law. If Defendant asserts such a privilege, it shall provide to the United States the following: (a) the title of the document, record, or information; (b) the date of the document, record or information; (c) the name and title of each author of the document, record or information; (d) the name and title of each addressee and recipient; (e) a description of the subject of the document, record, or information; and (f) the privilege asserted by Defendant. However, no documents, records or other information created or generated pursuant to the requirements of this Decree shall be withheld on grounds of privilege.

113. Defendant may also assert that information required to be provided under this Section is protected as Confidential Business Information ("CBI") under 40 C.F.R. Part 2. As to any information that Defendant seeks to protect as CBI from disclosure to the public, Defendant shall follow the procedures set forth in 40 C.F.R. Part 2.

114. This Decree in no way limits or affects any right of entry and inspection, or any right to obtain information, held by the United States pursuant to applicable federal laws, regulations or permits, nor does it limit or affect any duty or obligation of Defendant to maintain

documents, records or other information imposed by applicable federal or state laws, regulations, or permits.

XIV. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS

115. Claims Resolved. This Consent Decree resolves the civil claims of the United States for the violations alleged in the CAA NOV, RCRA NOV and Complaint filed in this action through the date of lodging.

116. The resolution of claims in the Paragraph above is conditioned upon the veracity and completeness of the Financial Information provided to EPA by Defendant, and the financial, insurance and indemnity certification made by Defendant in Paragraph 123. If the Financial Information provided by Defendant, or the financial, insurance and indemnity certification made by Defendant in Paragraph 123, is subsequently determined by EPA to be false or, in any material respect, inaccurate, Defendant shall forfeit the civil penalty payment made pursuant to this Consent Decree, and this effect of settlement shall be null and void. Such forfeiture shall not constitute liquidated damages and shall not in any way foreclose the United States' right to pursue any other causes of action arising from Defendant's false or materially inaccurate information.

117. The United States reserves all legal and equitable remedies available to enforce the provisions of this Decree, except as expressly stated in Paragraph 115 (Claims Resolved). This Decree shall not be construed to limit the rights of the United States to obtain penalties or injunctive relief under the CAA or RCRA or their implementing regulations, or under other federal laws, regulations or permit conditions, except as expressly specified in Paragraph 115 (Claims Resolved). The United States further reserves all legal and equitable remedies to address any imminent and substantial endangerment to the public health or welfare or the

environmental arising at, or posed by, Defendant's Facility, whether related to the violations addressed in this Decree or otherwise.

118. In any subsequent administrative or judicial proceeding initiated by the United States for injunctive relief, civil penalties or other appropriate relief relating to CAA or RCRA violations at the Facility, Defendant shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim preclusion, claim-splitting or other defenses based upon any contention that the claims raised by the United States in the subsequent proceeding were or should have been brought in the instant case, except with respect to claims that have been specifically resolved pursuant to Paragraph 115 (Claims Resolved).

119. This Decree is not a permit, or a modification of any permit, under any federal, State or local laws or regulations. Defendant is responsible for achieving and maintaining complete compliance with all applicable federal, State and local laws, regulations and permits; and Defendant's compliance with this Decree shall be no defense to any action commenced pursuant to any such laws, regulations or permits, except as set forth herein. The United States does not, by its consent to the entry of this Consent Decree, warrant or aver in any manner that Defendant's compliance with any aspect of this Consent Decree will result in compliance with provisions of CAA § 112, 42 U.S.C. § 7412, or CAA § 502, 42 U.S.C. § 7661a, RCRA § 3005(a), 42 U.S.C. § 6925(a), or RCRA § 3004, 42 U.S.C. § 6924, or with any other provision of federal, State or local laws, regulations or permits.

120. This Consent Decree does not limit or affect the rights of Defendant or of the United States against any third parties, not party to this Decree, nor does it limit the rights of third parties, not party to this Decree, against Defendant, except as otherwise provided by law.

121. This Decree shall not be construed to create rights in, or grant any cause of action to, any third party not party to this Decree.

122. Notwithstanding any other provision of this Consent Decree, the United States reserves, and this Consent Decree is without prejudice to, the right to reinstitute or reopen this action, or to commence a new action seeking relief other than as provided in this Consent Decree, if the Financial Information provided by Defendant or the financial, insurance, or indemnity certification made by Defendant in Paragraph 123 is false or, in an material respect, inaccurate.

XV. CERTIFICATION

123. Defendant certifies that, to the best of its knowledge and belief, after thorough inquiry, it has:

a. not altered, mutilated, discarded, destroyed or otherwise disposed of any records, reports or other information relating to: (i) its potential CAA liability regarding the Facility since its receipt of the CAA NOV; and (ii) its potential RCRA liability regarding the Facility since its receipt of the RCRA NOV;

b. fully complied with any and all EPA requests for information regarding the Facility and Defendant's financial circumstances;

c. submitted to the United States financial information that fairly, accurately and materially sets forth Defendant's financial circumstances, and that those circumstances have not materially changed between the time the financial information was submitted to the United States and the time Defendant executes this Consent Decree; and

d. fully disclosed any information regarding the existence of any insurance policies or indemnity agreements that may cover claims relating to the Facility, and submitted to EPA and DOJ upon request such insurance policies, indemnity agreements, and information.

XVI. COSTS

124. The Parties shall bear their own costs of this action, including attorneys' fees, except that the United States shall be entitled to collect the costs (including attorneys' fees) incurred in any action necessary to collect any portion of the civil penalty or any stipulated penalties due but not paid by Defendant.

XVII. NOTICES

125. Unless otherwise specified herein, whenever notifications, submissions or communications are required by this Consent Decree, they shall be made in writing and addressed as follows:

To the United States:

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
Box 7611 Ben Franklin Station
Washington, D.C. 20044-7611
Re: DOJ No. 90-5-2-1-10613

and

Chief, Civil Division
United States Attorney's Office
Eastern District of Wisconsin
517 East Wisconsin Avenue, Room 530
Milwaukee, WI 53202

To EPA:

Air and Radiation Division
U.S. Environmental Protection Agency
Region 5

77 W. Jackson Blvd. (AE-17J)
Chicago, IL 60604
Attn: Compliance Tracker

and

Office of Regional Counsel
U.S. Environmental Protection Agency
Region 5
77 W. Jackson Blvd. (C-14J)
Chicago, IL 60604

To WDNR:

Bill Baumann
Acting Director
Bureau of Air Management
Wisconsin Department of Natural Resources
101 S. Webster St.
PO Box 7921 (AM/7)
Madison, WI 53702

and

Daniel Schramm
Air Management Supervisor
Wisconsin Department of Natural Resources
Bureau of Air Management
2300 N. Martin Luther King Jr. Dr.
Milwaukee, WI 53212

To Defendant:

Michael Wabiszewski
President and CEO
Maynard Steel Casting Company
2856 South 27th Street
Milwaukee, Wisconsin 53215

and

Steven M. Biskupic
Biskupic & Jacobs, S.C.
1045 W. Glen Oaks Lane, Suite 106
Mequon, WI 53092

and

Todd Palmer
Michael, Best and Friedrich LLP
100 E. Wisconsin Ave., Ste. 3300
Milwaukee, WI 53202

Any Party may, by written notice to the other Parties, change its designated notice recipient or notice address provided above.

126. Notices submitted pursuant to this Section shall be deemed submitted upon mailing, unless otherwise provided in this Decree or by mutual agreement of the Parties in writing.

XVIII. EFFECTIVE DATE

127. The Effective Date of this Decree shall be the date upon which this Decree is entered by the Court or a motion to enter this Decree is granted, whichever occurs first, as recorded on the Court's docket; provided, however, that Defendant hereby agrees that it shall be bound to perform duties scheduled to occur prior to the Effective Date. In the event the United States withdraws or withholds consent to this Decree before entry, or the Court declines to enter this Decree, then the preceding requirement to perform duties scheduled to occur before the Effective Date shall terminate.

XIX. RETENTION OF JURISDICTION

128. The Court shall retain jurisdiction over this case until termination of this Decree, for the purpose of resolving disputes arising under this Decree or entering orders modifying this Decree, pursuant to Sections XV (Dispute Resolution) and XXV (Modification), or effectuating or enforcing compliance with the terms of this Decree.

XX. MODIFICATION

129. The terms of this Consent Decree, including any attached appendices, may be modified only by a subsequent written agreement signed by all the Parties. Where the modification constitutes a material change to this Decree, it shall be effective only upon approval by the Court.

130. Any disputes concerning modification of this Decree shall be resolved pursuant to Section XV of this Decree (Dispute Resolution), provided, however, that, instead of the burden of proof provided by Paragraphs 106 and 107 (Standard of Review), the Party seeking the modification bears the burden of demonstrating that it is entitled to the requested modification in accordance with Federal Rule of Civil Procedure 60(b).

XXI. TERMINATION

131. After Defendant has: (a) satisfactorily completed performance of the requirements of Section VI (Compliance Requirements) of this Decree as determined by EPA; (b) has thereafter maintained continuous satisfactory compliance with this Decree and Defendant's CAA permit for a period of twelve (12) consecutive months; and (c) paid the civil penalty and any accrued stipulated penalties as required by this Decree, Defendant may serve upon the United States a Request for Termination, stating that Defendant has satisfied those requirements, together with all necessary supporting documentation.

132. Following receipt by the United States of Defendant's Request for Termination, the Parties shall confer informally concerning the Request and any disagreement that the Parties may have as to whether Defendant has satisfactorily complied with the requirements for termination of this Decree. If the United States agrees that this Decree may be terminated, the Parties shall submit, for the Court's approval, a joint stipulation terminating this Decree.

133. If the United States does not agree that this Decree may be terminated, Defendant may invoke Dispute Resolution under Section XV of this Decree. However, Defendant shall not seek Dispute Resolution of any dispute regarding termination, under Section XV, until sixty (60) Days after service of its Request for Termination.

XXII. PUBLIC PARTICIPATION

134. This Decree shall be lodged with the Court for a period of not less than thirty (30) Days for public notice and comment in accordance with 28 C.F.R. § 50.7. The United States reserves the right to withdraw or withhold its consent if the comments regarding this Decree disclose facts or considerations indicating that this Decree is inappropriate, improper or inadequate. Defendant consents to entry of this Decree without further notice and agrees not to withdraw from or oppose entry of this Decree by the Court or to challenge any provision of this Decree, unless the United States has notified Defendant in writing that it no longer supports entry of this Decree.

XXIII. SIGNATORIES/SERVICE

135. Each undersigned representative of Defendant and the Assistant Attorney General for the Environment and Natural Resources Division of the United States Department of Justice certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind the Party he or she represents to this document.

136. This Decree may be signed in counterparts, and its validity shall not be challenged on that basis. Defendant agrees to accept service of process by mail with respect to all matters arising under or relating to this Decree and to waive the formal service requirements set forth in Rules 4 and 5 of the Federal Rules of Civil Procedure and any applicable Local Rules of this Court including, but not limited to, service of a summons.

XXIV. APPENDICES

137. The following appendices are attached to and part of this Consent Decree:

a. Appendix A is the Fume Collection System Study.

b. Appendix B is the O&M Plan.

c. Appendix C is the Electric Arc Furnace – Outdoor Fugitive Emissions Opacity Monitoring Protocol.

d. Appendix D is the List of Financial Information Submitted by Defendant for the Ability to Pay Analysis.

e. Appendix E is the Diagram of RCRA Containment Structure.

XXV. INTEGRATION

138. This Consent Decree constitutes the final, complete and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Decree and supersedes all prior agreements and understandings, whether oral or written, concerning the settlement embodied herein. Other than deliverables that are subsequently submitted and approved pursuant to this Decree, no other document, nor any representation, inducement, agreement, understanding or promise constitutes any part of this Decree or the settlement it represents, nor shall it be used in construing the terms of this Decree.

XXVI. FINAL JUDGMENT

139. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment of the Court as to the United States and Defendant.

Dated and entered this ____ day of _____, _____.

_____

[_____]

UNITED STATES DISTRICT JUDGE

Eastern District of Wisconsin

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States v. Maynard Steel Casting Company* (E.D. Wis.).

FOR THE UNITED STATES OF AMERICA

DATE: 02-28-2017

THOMAS A. MARIANI, JR.
Section Chief
Environmental Enforcement Section
Environment & Natural Resources Division
U.S. Department of Justice
Washington, DC 20530

DATE: 03/01/2017

JENNIFER A. LUKAS-JACKSON
Senior Attorney
Environmental Enforcement Section
Environment & Natural Resources Division
U.S. Department of Justice
P.O. Box 7611, Ben Franklin Station
Washington, DC 20044
(202) 305-2332
jennifer.lukas-jackson@usdoj.gov

DATE: 3-1-2017

CHRIS R. LARSEN
Assistant United States Attorney
Eastern District of Wisconsin
517 East Wisconsin Avenue, Room 530
Milwaukee, WI 53202

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v. Maynard Steel Casting Company (E.D. Wis.).

DATE: 8/24/16

ROBERT A. KAPLAN
Acting Regional Administrator
U.S. Environmental Protection Agency
Region 5

DATE: 7/15/2016

T. LEVERETT NELSON
Regional Counsel
U.S. Environmental Protection Agency
Region 5

DATE: 7/11/16

CATHERINE GARYPIE
Associate Regional Counsel
U.S. Environmental Protection Agency
Region 5
77 W. Jackson Blvd.
Chicago, IL 60604

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States v. Maynard Steel Casting Company* (E.D. Wis.).

FOR MAYNARD STEEL CASTING COMPANY

DATE: 8/5/16

MICHAEL WABISZEWSKI
President and CEO
Maynard Steel Casting Company
2856 South 27th Street
Milwaukee, WI 53215

DATE: 8/12/16

STEVEN M. BISKUPIC
Biskupic & Jacobs, S.C.
1045 W. Glen Oaks Lane, Suite 106
Mequon, WI 53092

Exhibit 4

Consent Decree in

United States of America v.
Maynard Steel Casting Co. (E.D. Wis.)

<u>Appendix C</u>

Electric Arc Furnace – Outdoor Fugitive Emissions Opacity Monitoring Protocol

Appendix C
Electric Arc Furnace - Outdoor Fugitive Emissions Opacity Monitoring Protocol

1.0 Purpose

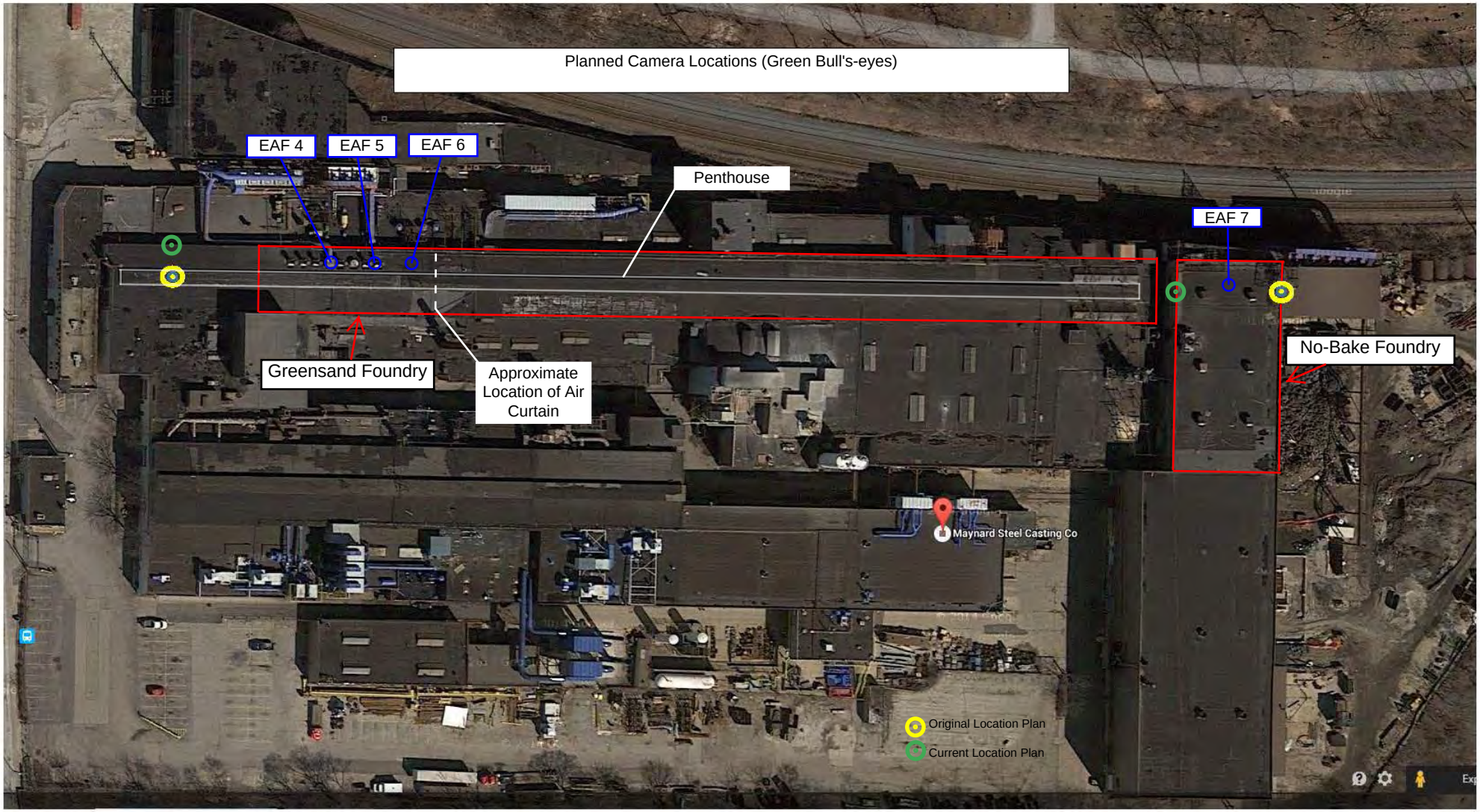
Uncaptured particulate matter ("PM") emissions from electric arc furnace ("EAF") charging, melting, refining, and tapping operations that are not directly or secondarily captured by an EAF Fume Collection System ("FCS"), generally may not be emitted to the atmosphere if they exhibit an opacity greater than 20 percent for a 6-minute interval, pursuant to s. NR 431.05, Wisconsin Administrative Code, and as specified under Paragraph 16 of the Consent Decree. This Protocol serves to detail the compliance monitoring approach that will be employed, when required, to measure the outdoor opacity associated with any fugitive emissions attributed to EAF operations that may emanate from the melt department of the Maynard Steel Casting Company ("Maynard") foundry and into the ambient atmosphere.

1.1 Background

Maynard currently has four EAFs, which are designated as EAF Nos. 4, 5, 6, and 7—each of which is equipped with a FCS that includes a shaker—type baghouse. Maynard's internal nomenclature refers to the foundry operations in the East End building (approximately the northern-most third of which physically houses EAF No. 7) as the "No-Bake Foundry" – See Figure 1. The portion of the facility that houses the balance of the foundry operations, including EAF Nos. 4, 5, and 6, is referred to as the "Greensand Foundry", which spans a continuous area along the north side of the facility that runs from west to east – See Figure 1. Although the "Greensand Foundry" ends at the East End building, there is no physical internal wall that separates the "Greensand Foundry" from the "No-Bake Foundry". While these names describe the majority of foundry operations that are typically performed in the respective areas, the descriptions are not to be interpreted as exclusive – *e.g.,* no-bake molds can be poured & cooled in the "Greensand Foundry".

EAF Nos. 4, 5, and 6 are located in the west portion of the "Greensand Foundry". These furnaces are arranged in order of increasing numeric identifier (4-5-6) from west to east. A north-south air curtain that bisects the bay is positioned to the immediate east of EAF No. 6, and is intended to retain the majority of the fugitive indoor emissions from these three furnaces in the west end of the "Greensand Foundry" to provide opportunities for secondary capture of such emissions via the local capture hoods of the associated FCSs. The approximate locations of the air curtain and of each of the EAFs are depicted on Figure 1.

The vertical temperature gradient within the foundry tends to increase from floor to ceiling, which contributes to a prevailing air movement from floor to ceiling due to the thermal buoyancy of the air. Ordinarily, the source of energy that causes air to rise above a hot process and expand into a thermal plume is caused by natural (*i.e.*, not forced) convective heat transfer off of hot surfaces. In the case of an EAF, natural convection is accompanied by another significant source of thermal energy that is not convective, namely the high thermal gradient between the furnace interior and the surrounding air, coupled with the



MAYNARD STEEL CASTING COMPANY
EAF Opacity Monitoring Protocol
Figure 1. General Layout [2015-09-21]

expansion of compressed air within the furnace, which pushes air upward via buoyant forces in a jet stream that exits the EAF through the annular spaces around the electrodes. Consequently, the velocity of the rising air within the foundry varies from area to area, depending on various factors, including ambient temperature, the nature of hot processes (*e.g.*, temperature, heated surface area, etc.), thermal energy inputs, and local exhaust hood capture efficiency, etc. In particular, the velocity is expected to be higher in areas immediately above an operating EAF due to the associated localized acute thermal energy.

The intensity of the thermal rise in air masses decreases as air cools and the thermal energy dissipates. Additionally, when the rising air mass contacts the underside of the roof, it tends to roll and, in so doing, loses energy and changes air flow direction; thereby providing opportunities for local capture hoods associated with powered FCSs to secondarily capture the air along with any entrained PM emissions. If the rising and/or rolling air mass encounters an opening in the building (*e.g.*, windows, pedestrian doors, vents, windows, etc.), then a portion of the air – along with any uncaptured PM contained therein – has the potential to migrate out of the building and into the atmosphere as fugitive emissions.

As detailed in a May 1, 2013, transmittal to the USEPA from Maynard, which is hereby incorporated by reference, there are limited areas in the roofs of the melt department of the foundry through which uncaptured emissions have the potential to migrate out of the building, to the extent that such areas are not otherwise closed or sealed. The areas include, but are not necessarily limited to gaps in steel panels on the roof, pedestrian doors, and rotary roof exhaust vents (non-operating). Notably, a penthouse runs along the approximate east-west centerline axis of the "Greensand Foundry", as depicted on Figure 1, which is flanked on both the north and the south sides by hinged, 4' x 8' windowed panels. Natural draft openings associated with these panels are possible if they are not completely closed, or if windows are damaged or are otherwise misaligned. Such openings are reasonably anticipated to be the most likely path for concentrated fugitive emissions from EAF operations to exit the building (particularly in the area immediately above an operating EAF) due two primary factors:

1. <u>Proximity to the Source of PM Emissions</u>: Uncaptured emissions tend to dissipate the further they migrate from the source and as the plume expands; therefore, fugitive emissions may reasonably be more concentrated when leaving the building via openings that are closest to the EAF.

2. <u>Intensity & Redirection of Air Mass</u>: The intensity of the thermal rise tends to decrease as thermal energy dissipates with increasing distance from the source of the thermal energy. The higher the intensity, the greater the likelihood for uncaptured PM emissions entrained in the air mass to more forcibly exit the building via available openings. Moreover, as the rising air mass encounters the underside of the penthouse roof, it begins to roll, thereby changing direction from vertical to horizontal and then down again. Within the penthouse, the roll initially redirects the air mass towards the windowed panels on the north and south sides of the foundry.

2.0 Methods and Approach

The EAF melting operations normally take place during off-peak hours, between 8:00 p.m. and 8:00 a.m. Understanding that the majority of the EAF operations take place after sunset and before sunrise, compliance with the applicable opacity requirement must be demonstrated using methods that use available natural or artificial lighting. The primary method that will be used for opacity monitoring during both nighttime and daytime hours is discussed under Section 2.1, while alternate methods for nighttime and daytime monitoring are discussed in Sections 2.2 and 2.3, respectively.

2.1 Opacity Monitoring – Primary Approach

The primary method that Maynard will use to measure opacity from its EAF operations during both nighttime and daytime hours is EPA Alternate Method 082 (ASTM D7520) - *Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere*[1]. In accordance with this method, digital imagery and associated hardware and software are used to determine the opacity of a plume. Opacity is determined by applying a Digital Camera Opacity Technique ("DCOT") that consists of a digital still camera, analysis software, and the output functions[2] content to obtain and interpret digital images of a plume.

This method uses a digital camera to capture a set of images against a contrasting background. Then analysis software is used to determine the plume opacity of each image by comparing a selected portion of the plume image where opacity is being measured to the background providing the contrasting values. The analysis software averages the opacities from a series of digital images taken over a fixed period of time.

2.1.1 Digital Still Camera

Maynard has purchased two VIVOTEK SD8363E Speed Dome Network Cameras with 1080p full HD resolution and a 20x optical zoom lens (specifications provided in Attachment 1). Each camera is enclosed in a IP66- and NEMA 4X-rated housing that protects the camera body against rain, dust, and corrosion within a wide temperature range of between -40°C to 55°C. According to the manufacturer (VIVOTEK Inc.), this camera is especially suited for monitoring wide open outdoor spaces such as airports, highways, and parking lots where high-level reliability and precision are required. This camera model is equipped with a pan/tilt mechanism that provides precise movement with continuous 360-degree pan and 220-degree tilt. The lens position can be controlled via a mouse or a joystick to track an object of interest, and to set up to 256 preset positions. This camera model was DCOT certified in accordance with Section 9, ASTM D7520, by Virtual Technology, LLC on June 22, 2015, and June 25, 2015, to capture daytime and nighttime images, respectively.

---

[1] Although Section 6.2 of ASTM D7520-13 states that this method shall only be used during daytime conditions, USEPA Region 5, during a January 27, 2015, meeting with Maynard, specifically identified this method as being acceptable for use in nighttime opacity monitoring. Virtual Technology, LLC affirmed the acceptability of this method by USEPA Region 5 for nighttime opacity monitoring during a meeting with Maynard on February 23, 2015.

[2] Defined under Section 3.2.9 of ASTM D7520-13 as "human readable information documenting the image being analyzed and configuration of the Analysis Software used, the opacity measurement and the other required environment variables defined (for example, view angle, wind direction)."

These digital cameras are capable of continuous digital motion image recording from which digital still images can be extracted for analysis. Such images are in JPEG format that adheres to the Exchangeable Image File (EXIF) 2.1 (or higher) format standard required under Section 4.2.1, ASTM D7520. Images captured for analysis are required to use the camera's auto-focus and auto-exposure settings, and may use the optical zoom feature. However, any flash, optical filters, digital zoom, and image stabilization of the camera may not be used when recording digital images of the plumes.

This Protocol has been developed to include two stationary, roof-mounted cameras for redundancy, and to provide flexibility in selecting an appropriate camera position for use in obtaining images for analysis (*e.g.*, considering factors such as prevailing air flow direction). The approximate locations for the two cameras are planned for opposite ends of the melt department along its east-west axis, as illustrated on Figure 1. At each location, the camera will be mounted above the roof surface. The west location will be positioned so that is can look east from atop the north wall of the Greensand Foundry (*i.e.*, above the crane level windows), thereby providing views of fugitive emissions from north-facing openings along the melt department in the immediate vicinity of EAFs 4, 5, and 6 (*i.e.*, looking down along the crane level windows, and along the north-facing penthouse windows). This position is also intended to provide a view of fugitive emissions from EAF 7 that may emanate from the roof of the East End Building. For the east end location, the camera will be positioned atop the west side of the roof of the East End building so that it can look east across the roof of the East End building, and also rotate to look west along the approximate east-west centerline of the penthouse of the Greensand Foundry. From this vantage point, fugitive emissions can be monitored from the roof of the East End building and along the length of the Greensand Foundry.

The cameras will be initially located at the planned locations described above to obtain test images that will be submitted to Virtual Technology, LLC. These test images will be used to determine if the locations and relative positioning of the cameras yield adequate images for opacity determination via its analysis software, which is discussed in Section 2.1.3 of this Protocol. If so, then the camera locations will be established as describe above. Otherwise, alternate locations will be investigated as directed by Virtual Technology, LLC in consultation with appropriate Maynard representatives with appropriate knowledge related to the technical feasibility associated with potential alternate locations (*e.g.*, in due consideration of access to power, obstructions, etc.).

2.1.2 Ambient Lighting

A plume is most visible and presents the greatest apparent opacity when it is viewed against a contrasting background. In accordance with Section 4.2.4 of ASTM D7520, ambient light must be sufficient to show a clear contrast between the plume and its background. According to Mr. Shawn Dolan, President - Virtual Technology, LLC (*i.e.*, the company that certified the above-noted camera), the nighttime certification of the camera model discussed in Section 2.1.1 (above) was completed with a clear sky and approximately half a moon without any supplemental backlighting. Based on a September 2015, review by Virtual Technology of test nighttime images with overcast

skies, supplemental backlighting is expected to be necessary for nighttime opacity monitoring. To do this, supplemental artificial lighting will be provided to wash the roof-top areas in the immediate vicinity of the EAFs with sufficient artificial lighting to provide an adequate contrasting background against which opacity will be measured. Maynard will provide USEPA, for review and approval, site-specific lighting plans for: (1) conducting nighttime opacity observations with a certified observer; and (2) conducting nighttime opacity readings using a certified camera, in accordance with Paragraph 48 of the Consent Decree.

If opacity monitoring is conducted during daylight hours (*i.e.*, after sunrise and before sunset), then natural lighting will serve as the ambient lighting in lieu of the artificial lighting described above.

2.1.3 Analysis Software

The opacity from the digital images captured via the cameras, which are digitally time and date stamped, will be evaluated using Digital Optical Compliance System II (DOCS II) software, which is commercially available only from Virtual Technology, LLC. Meteorological information (*e.g.*, wind speed & direction) used in the assessment is obtained via National Oceanic and Atmospheric Administration (NOAA) resources that are representative of Maynard's location. The portion of the plume selected for opacity determination will represent the part of the plume with the highest apparent opacity, excluding water vapor, as determined by the DCOT operator[3], and will be centered in the digital image (Sections 4.2.5 through 4.2.8, ASTM D7520).

In brief, the software compares selected "in the plume" areas to selected "background" areas adjacent to the plume. The difference between "in the plume" values and "out of the plume" values is correlated to opacity by the DOCS II software. This software is capable of assessing images in either simple or complex analysis modes. The simple mode may be used for homogenous (but not gray) backgrounds, such as black or white smoke on a blue background. In this mode, "in plume" and "out of plume" sticks (boxes) are positioned on corresponding areas of the image, as illustrated in Figure 2. The software then estimates the opacity between the two selected image areas.

The complex mode may be used on heterogeneous backgrounds (*e.g.*, wooded area) and gray backgrounds. When using the complex mode, a zero opacity image, which is effectively a duplicate of the image to be assessed before emissions are generated, typically needs to be selected for use as the background. "In plume" and "out of plume" sticks (boxes) are iteratively positioned on the background image until obtaining a green or yellow light to proceed (see Figure 3). The software is then used to superimpose the zero opacity/background image on each image to be analyzed before proceeding to determine the opacity measurement.

Maynard will obtain and use the software to analyze the opacity assessments, or electronically submit the images to be analyzed to Virtual Technology, LLC for assessment as part of its Software as a Service ("SaaS") service offering.

[3] *DCOT operator* is defined as the individual operating the DCOT system that records the digital still images with the Digital Still Camera and then determines plume opacity with the analysis software.

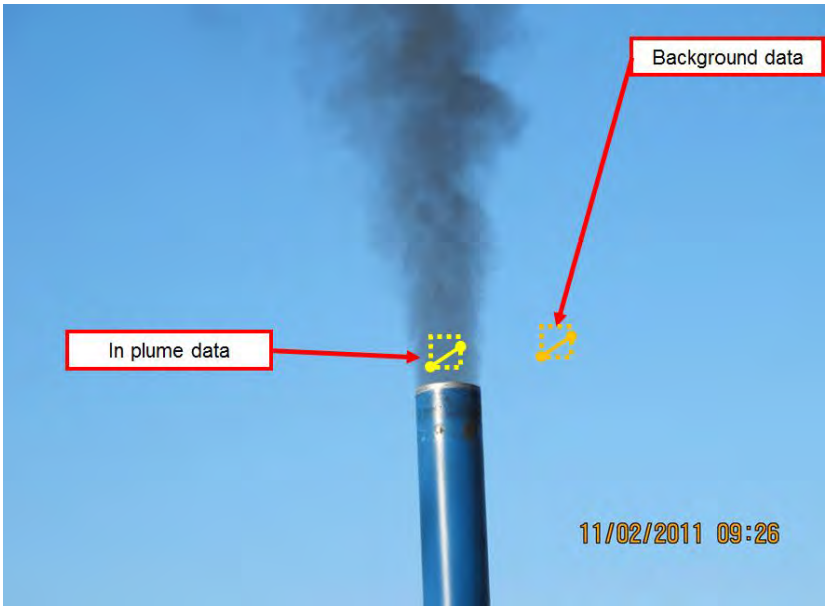


Figure 2. Simple Mode Example Image
[Source: "An Evaluation of a Digital Camera System for Measuring Smoke Plume Opacity", presented by Mr. Bill Gillespie, Virginia Department of Environmental Quality, at the *EPA Measurement Technology Workshop*, January 29, 2013]

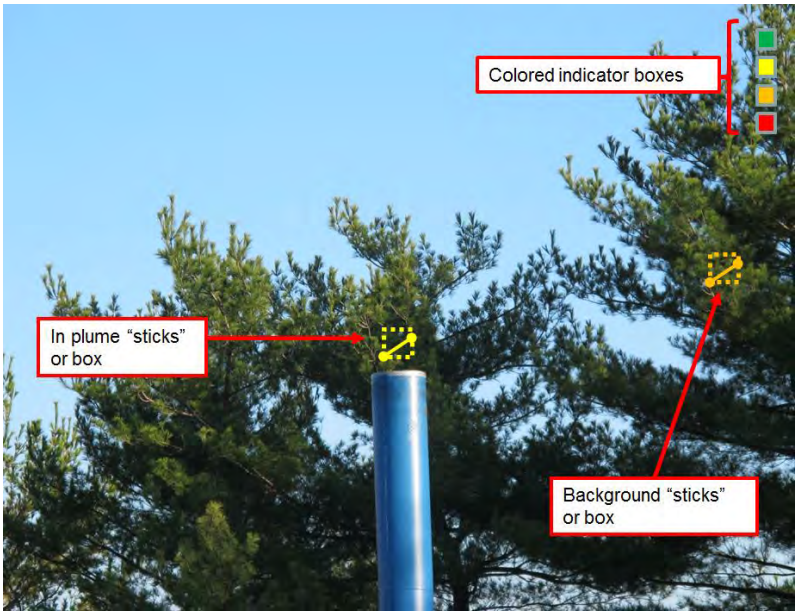


Figure 3. Complex Mode Example Image
[Source: "An Evaluation of a Digital Camera System for Measuring Smoke Plume Opacity", presented by Mr. Bill Gillespie, Virginia Department of Environmental Quality, at the *EPA Measurement Technology Workshop*, January 29, 2013]

2.1.4 Operator Training

Implementing this Protocol relies, in part, on the DCOT operator and the Digital Still Camera operator. Although these operators may be one and the same person, the functions of each job are different – each with its own competency requirements. In addition to meeting the following requirements, the DCOT operator is required to be certified as a Digital Still Camera Operator in accordance with ASTM D7520, Annex A1.10, as described below:

1. To acquire digital images from the Digital Still Camera to determine plume opacity by meeting the requirements specified by the training course for the specified DCOT system.

2. To use and be knowledgeable of the content described in "Principles of Visual Emissions Measurements and Procedures to Evaluate those Emissions Using Digital Camera Optical Technique (DCOT)", as provided in Annex A1, ASTM D7520-13.

3. To perform analysis with the DCOT system by attending a smoke school, acquiring images, and successfully performing analysis on smoke school imagery with the DCOT system.

   NOTE: Maynard personnel will only be required to obtain this certification if Maynard elects not to have Virtual Technology, LLC assess the opacity of the images as part of its SaaS service offering.

As part of its contract with Virtual Technology, LLC, Maynard shall ensure that items 1 and 2 are included in the DCOT system training that is required to be provided by Virtual Technology, which is its DCOT vendor.

The DCOT operator and any other individual that is designated to operate the Digital Still Camera for the purpose of obtaining images for opacity assessment, need to be certified to capture plume and related field data in accordance with Annex A-1.10, ASTM D7520-13, which requires that the candidate demonstrate a mastery of the following:

1. Rules associated with the operation of a Digital Still Camera;
2. Rules associated with plume observations;
3. Required field data supportive of a valid defensible observation; and
4. Expertise in utilizing field equipment.

The required certification will be obtained by successfully completing the respective training offered by Virtual Technology, LLC. The Digital Still Camera operator certification will last no longer than 3.5 years. At or before the expiration of the certification, the operator(s) will be retrained and recertified.

2.2 Night-time Opacity Monitoring – Alternate Approach

Rather than use the primary approach for nighttime opacity monitoring, as detailed in Section 2.1 of this Protocol, Maynard may elect to use an observer who has a then-current certification from the California Air Resources Board for nighttime visible emission evaluation as a contingency in the event that the primary approach is not functioning properly (*e.g.*, due to related hardware and/or software issues, backlighting issues and/or other unforeseen inhibiting factors). This method relies on direct visual observation by a human observer. The observer may either be Maynard personnel or an outside contractor that is properly trained and certified by the California Air Resources Board in conducting nighttime opacity monitoring.

2.3 Day-time Opacity Monitoring – Alternate Approach

Rather than use the primary approach for daytime opacity monitoring, as detailed in Section 2.1 of this Protocol, Maynard may use EPA Method 9 (40 CFR 60, Appendix A-4), which relies on direct visual observation by a qualified observer.

3.0 Modification of Protocol

This Protocol may be modified as a non-material change by written agreement between Maynard and the EPA, as provided under Paragraph 129 of the Consent Decree.

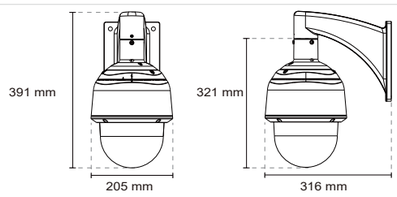
ATTACHMENT 1
DIGITAL CAMERA SPECIFICATIONS

Technical Specifications

Models	SD8363E SD8363E-M (electronic dehumidifier)
System Information	
CPU	Multimedia SoC (System-on-Chip)
Flash	128 MB
RAM	256 MB
Camera Features	
Image Sensor	1/2.8" Progressive CMOS
Maximum Resolution	1920x1080
Lens Type	20x optical zoom, auto focus
Focal Length	f = 4.7 ~ 94 mm
Aperture	F1.6 (wide) ~ F3.5 (tele)
Auto-iris	DC-iris
Field of View	3° ~ 55° (horizontal) 2° ~ 32° (vertical) 3° ~ 64° (diagonal)
Shutter Time	1/1 sec. to 1/10,000 sec.
WDR Technology	WDR Pro
Day/Night	Removable IR-cut filter for day & night function
Minimum Illumination	0.02 Lux @ F1.6, 50 IRE (Color) 0.001 Lux @ F1.6, 50 IRE (B/W)
Pan Speed	0.05° ~ 450° / sec.
Pan Range	360 endless
Tilt Speed	0.05° ~ 450° / sec.
Tilt Range	220° (-110° ~ +110°)
Preset Locations	256 preset locations, 40 presets per tour
Pan/tilt/zoom Functionalities	48x digital zoom (4x on IE plug-in, 12x built-in) Auto pan mode Auto patrol mode
On-board Storage	SD/SDHC/SDXC card slot
Video	
Compression	H.264, MJPEG & MPEG-4
Maximum Frame Rate	H.264: 30 fps @ 1920x1080 60 fps @ 1280x720 MPEG-4: 30 fps @ 1920x1080 60 fps @ 1280x720 MJPEG: 30 fps @ 1920x1080 60 fps @ 1280x720 (Up to 30/15 fps in WDR mode)
Maximum Streams	4 simultaneous streams
S/N Ratio	Above 60 dB
Dynamic Range	108 dB
Video Streaming	Adjustable resolution, quality and bitrate Zoom enhacement for better image quality under limited bandwidth
Image Settings	Adjustable image size, quality and bit rate Time stamp, text overlay, flip & mirror Configurable brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks (Up to 24) Scheduled profile settings
Audio	
Audio Capability	Audio input/output (full duplex)
Compression	GSM-AMR, AAC, G.711, G.726
Interface	External microphone input External line output
Network	
Users	Live viewing for up to 10 clients
Protocols	IPv4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, IGMP, SMTP, FTP, DHCP, NTP, DNS, DDNS, PPPoE, CoS, QoS, SNMP, 802.1X, UDP, ICMP
Interface	10Base-T/100 BaseTX Ethernet (RJ-45)
ONVIF	Supported, specification available at www.onvif.org
Intelligent Video	
Video Motion Detection	Triple-window video motion detection
Auto-Tracking	Auto-tracking on moving object

Alarm and Event	
Alarm Triggers	Video motion detection, manual trigger, periodical trigger, system boot, recording notification, audio detection
Alarm Events	Event notification using digital output, HTTP, SMTP, FTP and NAS server File upload via HTTP, SMTP, FTP and NAS server
General	
Connectors	RJ-45 cable connector for Network/PoE connection Audio input Audio output AC 24V power input Digital input*4 Digital output*2 RS-485 for PTZ control (PelcoD protocol, Baud rate 2400)
LED Indicator	System power and status indicator
Power Input	PoE plus (IEEE 802.3at compliant) High Power PoE AC 24V
Power Consumption	PoE plus: Max. 19W AC 24V: Max. 48W (heater on) Max. 19W (heater off) High Power PoE: Max. 48W (heater on) Max. 19W (heater off)
Dimensions	Ø: 205 mm x 321 mm
Weight	Net: 3,660 g
Casing	Weather-proof IP66- and NEMA 4X-rated metal housing Built-in electrical dehumidifier device (SD8363E-M)
Safety Certifications	CE, FCC Class A, VCCI, C-Tick, NEMA 4X
Operating Temperature	-5°C ~ 55°C (PoE Plus) -40°C ~ 55°C (AC 24V / High Power PoE)
Warranty	36 months
System Requirements	
Operating System	Microsoft Windows 7/Vista/XP/2000
Web Browser	Mozilla Firefox 7~10 (Streaming only) Internet Explorer 7.x or 8.x
Other Players	VLC: 1.1.11 or above Quicktime: 7 or above
Included Accessories	
CD	User's manual, quick installation guide, Installation Wizard 2, ST7501 32-channel recording software
Others	Wall mount bracket, screws, waterproof connectors, terminal blocks, RJ45 coupler, ethernet cable, quick installation guide, warranty card, alignment sticker, T25 stardriver, seal ring, software CD

Dimensions



Compatible Accessories

Mounting Kits

AM-116
20 cm pendant pipe

AM-231
Parapet mounting kit

AM-519
1.5" PT adapter

AM-117
40 cm pendant pipe

AM-221
Goose neck mounting kit

AM-118
Indoor pendant head

AM-103
Recessed kit

PoE Kits

AP3001
PoE plus injector

AP-331
High power PoE injector

Power Adapter

AA-341
AC 24V power adapter

Others

AC-212
Smoked cover

AC-111
Vandal-proof transparent cover

AO-001
Combo cable

All specifications are subject to change without notice. Copyright © VIVOTEK INC. All rights reserved.

Distributed by:

Ver 1.5

VIVOTEK INC.
6F, No.192, Lien-Cheng Rd., Chung-Ho,
New Taipei City, 235, Taiwan, R.O.C.
T: +886-2-82455282 F: +886-2-82455532
E: sales@vivotek.com

VIVOTEK USA
2050 Ringwood Avenue,
San Jose, CA 95131
T: 408-773-8686 F: 408-773-8298
E: salesusa@vivotek.com

VIVOTEK Europe
Randstad 22-133, 1316BW Almere,
The Netherlands
T: +31(0)36-5298-434
E: salesnoneu@vivotek.com

VIVOTEK
BUILT WITH RELIABILITY

Speed Dome Network Camera

SD8363E/63E-M

1080p Full HD • 20x Zoom • NEMA 4X • IP66 • Extreme Weatherproof • PoE Plus

VIVOTEK SD8363E is part of the SUPREME series product line offering 1080p Full HD resolution with superb image quality. Adopting a 20x optical zoom lens, the SD8363E is able to capture details at top-notch quality. The IP66- and NEMA 4X-rated housing protects the camera body against rain, dust, and corrosion within a wide temperature range of between -40°C to 55°C. This feature ensures operation under extreme weather conditions and hazardous environments. It is especially suitable for monitoring wide open indoor/outdoor spaces such as airports, highways and parking lots where high-level reliability and precision are always required.

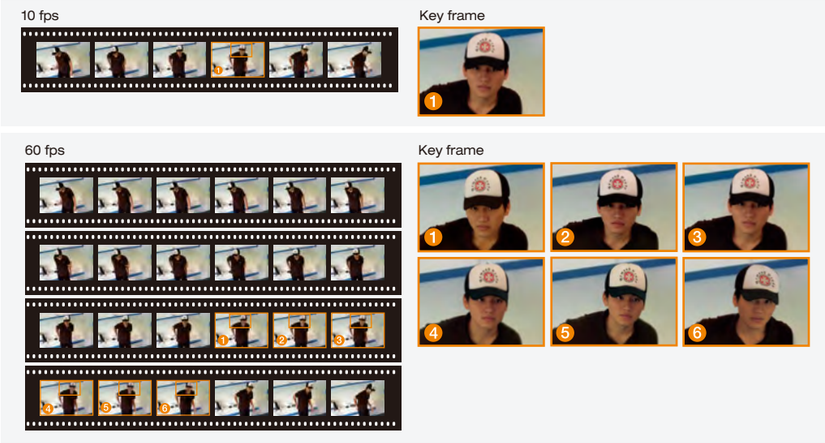
The SD8363E supports high-performance H.264/MPEG-4/MJPEG compression technology and offers extra smooth video quality with resolution up to 30 fps @ 1080p. Boasting WDR Pro technology, the SD8363E can also cope with challenging lighting conditions and generate image quality close to the capabilities of the human eye. With a sophisticated pan/tilt mechanism, the camera provides fast, precise movement with continuous 360-degree pan and 220-degree tilt. Users can also easily control the lens position via a mouse or a joystick to track the object of interest and set up to 256 preset positions. With the built-in auto tracking feature, the SD8363E provides instantaneous reaction to suspicious moving objects in wide area locations before operators are aware of activity.

As with all VIVOTEK true day/night cameras, the SD8363E features a removable IR-cut filter, maintaining clear images 24 hours a day. With audio detection, by recognizing increases or decreases in sound volume, an additional layer of intrusion detection is ensured. Zoom enhancement provides 60x optical zoom at 640x360 resolution by which VGA-level bandwidth is used to obtain image details as high as 1080p resolution. With other advanced features such as SD/SDHC/SDXC card slot, 802.3at compliant PoE Plus and 60 fps high quality video, the SD8363E is the best choice for the most demanding outdoor surveillance applications.

SUPREME

60 fps Raises Recognition Accuracy

The VIVOTEK SD8363E is able to transmit 60 fps @ 720p resolution with H.264 compression, whereas a conventional megapixel camera can generally only achieve 10 to 15 fps due to hardware limitations. 60 fps provides a significant advantage as it enables viewing and recording footage at an exceptional frame rate. This feature provides a more complete record of an event and ensures accurate target identification. The more images or frames that can be captured and delivered to a facial recognition database, the more forensic evidence is available for biometric pairing, significantly increasing the level of accuracy.

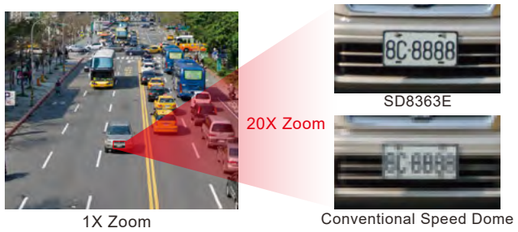


Advanced Mechanism

SD8363E has a pan range of 360° and tilt range of 220°. With the additional 20° tilt range, the SD8363E is able to expand the viewing range to the field above the normal horizontal view. Additionally, the SD8363E is built with QuickPan technology, allowing for 360° endless panning at a speed of 450° per second.
This allows users to quickly direct the camera lens to catch any object of interest in the field of view surrounding the camera.

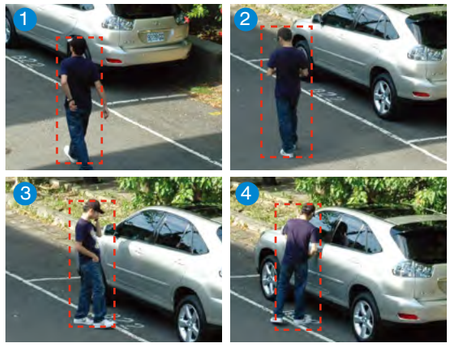
Zoom Enhancement

Utilizing a 20x optical zoom lens, the SD8363E provides close-up images with 1080p detail and effectively extends the user's viewing distance. Even under limited bandwidth environments, users can take advantage of the VIVOTEK Zoom enhancement feature to obtain image detail as high as 1080p resolution using VGA-level bandwidth.



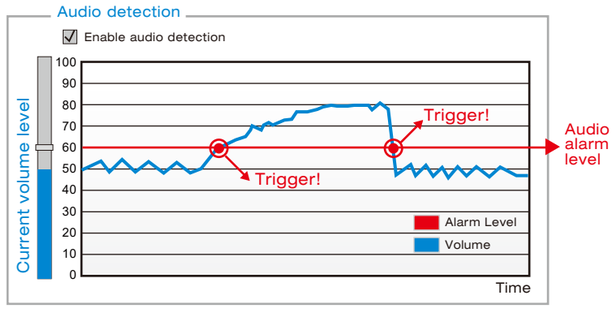
Auto Tracking for Moving Objects

The auto tracking feature provides instantaneous reaction to suspicious moving objects over a wide area before an operator may be aware of activity. Users are able to define the target object size in order to render auto tracking more effectively.



Audio Detection for Instant Alerts

The audio detection feature enables an event trigger when a sudden, unexpected increase or decrease in sound volume occurs so as to alert users of a possible emergency situation.



Unparalleled Visibility in High Contrast Environments

When a camera is used in a high contrast, backlight, glare or light reflective environment, such as a building entrance, ATM or window, an object may appear dark and unrecognizable. WDR (Wide Dynamic Range) technology compensates for the unbalanced lighting, restoring the details throughout the field of view. With this feature, the SD8363E is able to maintain image quality even under challenging light conditions.

• WDR Pro

WDR Pro works by capturing alternate frames using different exposure times. An image signal processor (ISP) then uses a sophisticated algorithm to seamlessly combine the optimal portions of these two complementary frames to create a composite frame that retains details in both the dark and bright areas of the field of view.

A single high-contrast frame is created by combining the two frames using an advanced image signal processor.

(Note: Frame rate drops by half when using WDR Pro.)

Extreme Weatherproof

• Wide Temperature Range

The wide temperature range (-40°C ~ 55°C) enhances the SD8363E's performance and reliability under extremely harsh weather conditions.

• IP66-rated and NEMA 4X Housing

The weather-proof IP66- and NEMA 4X-rated housing protects the SD8363E from rain, dust, and corrosion, allowing the device to operate outdoors under a multitude of weather conditions.

SD8363E/63E-M | Speed Dome Network Camera

- 1080p Full HD SONY CMOS Sensor
- 30 fps @ 1080p Full HD
  60 fps @ 720p HD
- 20x Zoom Lens
- Removable IR-cut Filter for Day & Night Function
- 360° Continuous Pan and 220° Tilt
- Real-time H.264, MPEG-4 and MJPEG Compression (Triple Codec)
- WDR Pro for Unparalleled Visibility in High Contrast Environments
- Weather-proof IP66-rated and NEMA 4X Housing
- -40°C ~ 55°C Wide Temperature Range for Extreme Weather Conditions
- Audio Detection for Instant Alerts
- Auto Tracking for Moving Objects
- Built-in 802.3at Compliant PoE Plus
- 3D Privacy Masks for Additional Protection
- Built-in SD/SDHC/SDXC Card Slot for On-board Storage

ONVIF

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

MAR 22 2017

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

Mr. John A. Rego
Jones Day
North Point, 901 Lakeside Avenue
Cleveland, Ohio 44114-1190

Dear Mr. Rego:

Thank you for your letter of March 17, 2017, on behalf of Eramet Marietta Inc., to U.S. Environmental Protection Agency Administrator Scott Pruitt, petitioning for reconsideration and stay of the National Emission Standards for Hazardous Air Pollutants for Ferroalloys Production. The Administrator asked that I respond on his behalf.

We acknowledge receipt of your petition. The petition is still under review and upon completion of the review, the EPA will determine the appropriate response.

If you have any questions, please contact Mr. Chuck French of this office at (919) 541-7912.

Sincerely,

Jennifer Moser Edmiston
for
Stephen D. Page
Director
Office of Air Quality Planning
and Standards

cc: Erica Zilioli, Department of Justice
Chuck French, EPA
Jonathan Averback, EPA

JONES DAY

NORTH POINT • 901 LAKESIDE AVENUE • CLEVELAND, OHIO 44114.1190
TELEPHONE: +1.216.586.3939 • FACSIMILE: +1.216.579.0212

Direct Number: (216) 586-7542
jrego@JonesDay.com

JP858259:kah/1500432393
139357-600002

March 17, 2017

RECEIVED
2017 MAR 21 PM 1:20
OFFICE OF THE
EXECUTIVE SECRETARIAT

VIA OVERNIGHT MAIL AND EMAIL

Honorable Scott Pruitt, Administrator
Environmental Protection Agency
USEPA Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
Room 3000
Washington, DC 20004
Pruitt.Scott@EPA.gov

Re: Petition for Reconsideration of EPA Action and Request for Stay, National Emission Standards for Hazardous Air Pollutants: Ferroalloys Production, 82 Fed. Reg. 5401 (January 18, 2017)

Dear Administrator Pruitt:

Pursuant to Section 307(d)(7)(B) of the Clean Air Act, 42 U.S.C. §7607(d)(7)(B), and Section 4(e) of the Administrative Procedure Act, 5 U.S.C. §533(e), Eramet Marietta Inc. hereby petitions for reconsideration regarding the above-referenced final action, hereinafter referred to as the "Ferroalloys NESHAP Reconsideration," and for a stay of the effective date of that action for up to three months, pending completion of the reconsideration proceeding. The Ferroalloys NESHAP Reconsideration amends the Administrator's final action entitled "National Emission Standards for Hazardous Air Pollutants: Ferroalloys Production," 80 Fed. Reg. (June 30, 2015), hereinafter referred to as the "Ferroalloys NESHAP."

Since publication of the Ferroalloys NESHAP Reconsideration, but within the time specified for judicial review, grounds for additional objections of central relevance to this rulemaking have arisen. In particular, EMI objects to, and hereby seeks reconsideration of the final requirement to demonstrate compliance with shop building opacity standards using digital camera opacity technique ("DCOT") in accordance with ASTM D7520-13 (40 C.F.R. §63.1625(d)), as promulgated in the Ferroalloys NESHAP, as amended by the Ferroalloys NESHAP Reconsideration.

I. Background

EPA has long recognized that the emissions standards the Agency promulgates under the Clean Air Act are only credible and effective when they are enforced via reliable, accurate compliance test methods. To that end, the Agency has established stringent processes through which potential test methods will be evaluated and approved for use by regulated facilities to demonstrate legal compliance. EPA has employed that process to codify a set of approved test

AR-17-000-6503

methods that facilities throughout the United States may use to demonstrate compliance with applicable standards, including EPA Method 9 to demonstrate compliance with visible emissions (or "opacity") standards. As a result, Method 9 training and testing is widely accessible to the regulated community through a broad network of EPA-approved vendors.

The Ferroalloys NESHAP does not amend in any way the existing EPA policies and regulations that underlie Method 9's ongoing use by thousands of non-ferroalloy facilities – as well as by state and local regulators – throughout the United States. Nor has EPA ever suggested that Method 9 would be an unreliable method for measuring compliance with the opacity standards established in the Ferroalloys NESHAP.

As originally proposed by EPA, and as supplementally proposed by EPA, the Ferroalloys NESHAP provided that the ferroalloys facilities could measure compliance with fugitive particulate opacity standards using either the longstanding EPA Method 9 or DCOT, provided that facilities obtained certifications of their DCOT systems in accordance with the ASTM standard. However, in the final Ferroalloys NESHAP, EPA unexpectedly eliminated the option of using EPA Method 9 and instead required the use of DCOT to measure fugitive opacity. Given the lack of advance notice that EPA was considering the unprecedented step of denying a single industry the right to use an established EPA test method currently in use at 1000s of facilities across the United States (including EMI and Felman Production, the other company covered by the Ferroalloys NESHAP), both EMI and Felman filed petitions for reconsideration with Administrator Gina McCarthy.

Administrator McCarthy granted reconsideration on DCOT and several other issues on July 12, 2016, *see* 81 Fed. Reg. 45089, and established a 45-day public comment period ending on August 26, 2016. EMI submitted timely comments to the Administrator via regulations.gov. *See* Docket ID EPA-HQ-OAR-2010-0895-0326. Those comments requested that EPA reinstate EMI's right to use Method 9 to demonstrate compliance with the Ferroalloys NESHAP and raised the following objections:

- DCOT is scientifically unproven for the use specified in the Ferroalloys NESHAP
  - The method has not been demonstrated to reliably measure fugitive emissions from long passive roof monitors, like those at EMI, as opposed to stack emissions
  - The method has not been demonstrated to reliably measure fugitive emissions over the course of a 90-minute furnace cycle, like those that occur at EMI
  - EPA relied on invalid statistical comparisons of DCOT to Method 9 to conclude that DCOT was capable of accurately measuring EMI's fugitive emissions

- EPA did not adopt DCOT through proper procedures
  - EPA did not follow its own procedures for evaluating and approving alternate compliance test methods
  - EPA failed to account for the upward bias of DCOT opacity measurements
  - EPA failed to properly consider the disproportionate costs of DCOT testing versus EPA Method 9 testing
- EPA should not have used its regulatory power to subject EMI to the monopolistic pricing power of a sole source vendor as a condition of remaining in operation
  - DCOT will cost much more than Method 9 to use
  - It was unfair and unlawful for EPA to deny a single industry the right to use EPA Method 9

The Ohio Environmental Protection Agency and the representatives of a broad cross-section of U.S. industry also filed comments objecting to EPA's requirement that DCOT be used as the sole method of demonstrating compliance with the Ferroalloys NESHAP, including the American Iron and Steel Institute, the American Petroleum Institute, the Portland Cement Association, and the Utility Air Regulatory Group, and Felman Production. These commenters provided additional information supporting the conclusion that DCOT has not been technically demonstrated to provide reliable measurements of fugitive emissions from roof vents, that EPA did not properly evaluate DCOT before requiring its use, that it would DCOT far more costly to implement than Method 9, and that EPA should not require the use of a test method available from a single commercial vendor who can exercise monopolistic pricing practices. These commenters uniformly urged Administrator McCarthy to reinstate the option of using Method 9 to demonstrate compliance with the Ferroalloys NESHAP in addition to DCOT.

On January 18, 2017, Administrator McCarthy issued her final action on EMI's petition for reconsideration. *See* 82 Fed. Reg. 5401. In that action, the Administrator denied EMI's request for the right to use EPA Method 9 to demonstrate compliance with the Ferroalloys NESHAP. *Id.* at 5405. EPA amended the DCOT provision in the Ferroalloys NESHAP slightly to reference the 2016 version of the applicable ASTM standard. Id. at 5407-08.

In EPA's "Summary of Public Comments and Responses on the Proposed Reconsideration," ID: EPA-HQ-OAR-2010-0895-0341, EPA expanded on the reasoning presented in its Federal Register notice. In response to comments from EMI and others that use of fixed DCOT cameras to measure fugitive emissions could be unreliable due to the need to account for changes in sun angle and wind direction, EPA agreed with the validity of such concerns, but considered them addressed by the option of mounting the DCOT camera on a

tripod and moving the camera as necessary to achieve the proper orientation to the fugitive plume. *See id.* at 14 (sun angle) and 21 (wind direction).

In response comments from EMI and others that DCOT would be much more expensive than use of Method 9 and that the sole-source DCOT vendor could use is EPA-granted monopoly to charge whatever the vendor wished, EPA responded in part that it considered the costs of DCOT reasonable, based on estimates provided by the vendor and costs posted on the vendor's website. *See id.* at 25. Moreover, EPA noted that a covered facility "also has the option [of] doing the opacity determinations in-house by having one of their employees trained and certified to be a DCOT analyst." *Id.; see also id.* at 18 (same).

II. Grounds for Reconsideration

Since the Reconsideration Decision was published, EMI has become aware of additional information that casts doubt on the Administrator's stated reasoning in support of the Ferroalloys NESHAP Reconsideration. First, EMI has been in contact with the sole DCOT vendor, seeking a proposal for the implementation of DCOT at EMI's facility as necessary to demonstrate compliance with the opacity standards in the Ferroalloys NESHAP. The vendor's responsive communications with EMI have demonstrated circumstances are not as EPA believed when it issued the Ferroalloys NESHAP Reconsideration.

Second, EMI has become aware of a consent decree lodged on March 1, 2017 by the United States in the federal district court for Eastern District of Wisconsin in an enforcement case involving Maynard Steel Casting Company. That decree, which is in response to the respondent's violations of opacity standards established pursuant to the Clean Air Act, includes the use of the same sole-source DCOT technology required in the Ferroalloys NESHAP, but explicitly recognizes the risk of technological difficulties and authorizes the respondent to conduct required opacity monitoring using Method 9 in lieu of DCOT.

A. Vendor Communications

As noted above, EMI has been in contact with the DCOT vendor to whom EPA granted a monopoly to be the exclusive source of opacity compliance testing required by the Ferroalloys NESHAP. The vendor's responsive communications with EMI cast doubt on whether DCOT can be successfully and cost-effectively implemented at EMI. In particular, these communications indicate:

1. The sole-source DCOT vendor does not currently have an ASTM-certified product capable of generating the data required by the Ferroalloys NESHAP;

2. The sole-source vendor will not provide a proposal to EMI unless EMI first hires the vendor as a "consultant" and commits to pay well over $10,000;

3. The sole-source vendor has already abandoned the pricing relied upon by EPA and now sets pricing on a case-by-case basis;

4. The sole-source vendor does not consider moveable tripod-mounted DCOT cameras a viable option;

5. Contrary to EPA's belief, the sole-source vendor will not license a customer to analyze its own images using the vendor's software; and

6. The sole-source vendor may not provide the certification required under the Ferroalloys NESHAP.

Each of these factors undermines EPA's conclusion that DCOT should be the sole available option for demonstrating compliance with the opacity standards in the Ferroalloys NESHAP. These issues relate directly to EMI's ability to rely on DCOT and, therefore, are of central relevance to the Ferroalloys NESHAP rulemaking. Each of these issues is addressed in greater detail below.

1. The sole-source DCOT vendor does not currently have an ASTM-certified product capable of generating the data required by the Ferroalloys NESHAP.

In response to EMI's request for a proposal ("RFP") from the sole-source DCOT vendor, which is attached hereto as Exhibit 1, the vendor has corresponded with EMI by email. That dialogue is attached hereto as Exhibit 2. Over the course of that dialogue, the vendor informed EMI that he does not currently have an ASTM-certified product that will comply with the Ferroalloys NESHAP, because each customer's service must be custom-built to provide the necessary output:

> VT LLC's product, DOCS II is an ASTM D7520-16 certified DCOT as required in the Ferro Alloy NESHAP. The specific application of DOCS II to the Ferro Alloy NESHAP requirements is custom to the facilities that require compliance to the Ferro Alloy NESHAP.VT LLC does not sell a product specifically for the Ferro Alloy NESHAP as your RFP implies. Thus the modifications required to automate the requirements of the Ferro Alloy NESHAP must be created for the specific customers.

Exhibit 2 at 6. Moreover, the vendor has expressed uncertainty regarding the opacity measurements required by the Ferroalloys NESHAP and how they would be averaged to meet the rule's opacity standards:

> It seems to me, the step of "Pouring the molten metal into casting beds" should be excluded from the "Furnace Cycle" if possible, in defining the length of the observations in CF1 and CF2. It appears the MOR is fixed at 60 min. but from when? Further, the definition of an i) "Individual Opacity Reading" and the selection of the ii) "24 Consecutive Images", particularly with respect to iv) whereby any 2 consecutive "Individual Opacity Readings" shall not be more that 20% needs detail. The difference between a rolling 24, versus a specific 24, when compared consecutively is significant. Both your RFP and the NESHAP are silent on this requirement. This is the level of logic that is required, quoted previously as a long lead time item. This logic is also likely the greatest overall project cost, and time driver. However, this is also the logic that will define pass or fail. Thus critical to get it correctly defined and sustainable.

Id. at 10; see also id. at 7 ("At the moment nobody is paying me to interpret this NESHAP, for implementation and automation at a facility. However without this definition, software cannot be written to generate the reports.") In contrast to EPA's statements in the Ferroalloys NESHAP and the Reconsideration Decision, which implicitly assume that the sole-source vendor and the vendor's software were capable of collecting and analyzing the opacity data necessary to demonstrate compliance, the vendor himself has indicated that he is unsure of what is required and does not explain how that uncertainty will be eliminated, but does label the issue "a long lead time item."

Based on the this information, the Administrator should reconsider his assumption that the DCOT technology has been perfected to the degree necessary to provide a reliable alternative to Method 9 for demonstrating compliance with the Ferroalloys NESHAP.

2. The sole-source vendor will not provide a proposal to EMI unless EMI first hires the vendor as a "consultant" and commits to pay well over $10,000.

In comments submitted in connection with the Reconsideration Decision process, EMI and numerous other commenters, expressed concern that EPA was conferring a legal monopoly on the sole-source DCOT vendor by requiring ferroalloys producers to contract with that vendor at whatever cost the vendor chose to impose as a condition of remaining in operation. EPA dismissed these concerns as unfounded. However, in response to EMI's RFP, the sole-source vendor informed EMI that he would require a multiday visit to EMI before he would supply a proposal and that EMI would be required to fund that visit by hiring him as a "consultant" and agreeing to pay $8,500, plus his expenses (with a 10% markup), plus $1000 per day for an unknown number of "office" days:

> Please contract me to come review your facility with you.
>
> * * * *
>
> I charge $500/travel day in continental US, $2500/day on site, $1000/day office time, plus expenses @ actual + 10%, due upon receipt.
>
> * * * *
>
> Consulting fees are time based and non-refundable. You would know how long we will need on site to observe the Furnace and MOR cycles enough to perform the definitions stipulated. I would hope we could do in three days and I would hope that could be next week.

Exhibit 2 at 10-11. The vendor later expanded this estimate from a three-day visit to a five-day visit. Id. at 9. "Each installation of DOCS II is specific to the customer's needs and the definition of the customer's needs is the effort you are asking me to do. VT LLC will gladly perform this definition task, as we are very qualified to do it, but I do not do this work for free." Id. at 6.

The vendor's demand is clear demonstration that the sole-source vendor intends to use his government-conferred monopoly status to extract fees far in excess of what would be available in a competitive market, such as the market for Method 9 training and testing. Since such services are available from a wide range of vendors, no Method 9 vendor would ever consider demanding an upfront, non-refundable consulting fee (much less a fee that would $10,000) just to provide a "free" proposal.

Clearly, the sole-source DCOT vendor realizes that he will not be forced to compete for EMI's business, and therefore intends to maximize revenue. Moreover, if it will cost EMI over $10,000 just to find out how much DCOT will cost, actual services and technology can be expected to cost many times more. As EMI could certify two employees to conduct Method 9 readings to meet the opacity testing requirements of the Ferroalloys NESHAP for less than the cost of obtaining the vendor's proposal, the Administrator should reconsider his conclusion that DCOT is a cost-effective option for monitoring opacity.

3. The sole-source vendor has already abandoned the pricing relied upon by EPA and now sets pricing on a case-by-case basis.

The vendor has also abandoned the very pricing information that EPA used to conclude that the cost of implementing DCOT would be reasonable. See Exhibit 2 at 3 ("Note old pricing was quoted by rule"), id. at 4 ("VT LLC no longer prices in this manor [*i.e.*, price list posted on

website], picture variation is too high. All DOCS II customers now have site surveys that establish the picture quality, repeatability, output, cycle timing"). As predicted by EMI and other commenters, once granted a monopoly, the sole-source vendor would lose all need to provide transparent, competitive pricing. The vendor's new case-by-case approach eliminates all of the constraints that the competitive market for Method 9 training and testing provides. As it is now clear that the pricing assumptions relied upon by EPA to assure the public that DCOT would be reasonably priced have disappeared, the Administrator should reconsider his conclusion that DCOT is a cost-effective option for monitoring opacity.

4. The sole-source vendor does not consider moveable tripod-mounted DCOT cameras a viable option.

While EPA expressly relied upon the ability to reposition DCOT cameras in concluding that DCOT could be as flexible as a Method 9 reader in responding to variations in sun angle and plume orientation, the sole-source vendor now says, "I personally do not believe this approach is an option today," Exhibit 2 at 5, because he considers not all DCOT operators are capable of obtaining good images using a moveable camera. *See id.* Since EPA acknowledged the necessity of such operational flexibility in concluding that DCOT could equal Method 9 in reliability, the Administrator must reconsider that conclusion in light of the vendor's stated experience.

5. Contrary to EPA's belief, the sole-source vendor will not license a customer to analyze its own images using the vendor's software.

Contrary to EPA's repeated assertions that customers need not be dependent upon the sole-source vendor, but instead will have the option of having in-house personnel utilize the sole-source vendor's software to conduct the necessary opacity analyses, the vendor declined to provide EMI with this option, when requested. Instead, he expressed concern that such a user would not provide comparable quality, concluding: "We would have to develop a way to assure quality. I am interested in exploring this option, but not for free." Exhibit 2 at 4.

Thus, the option assumed by EPA is not currently available to EMI and, given multiple lines of evidence that the sole-source vendor intends to use his EPA-conferred monopoly to extract maximum revenue, it certainly can't be assumed that such an option will ever be offered at a reasonable price. Accordingly, there is yet more reason for the Administrator to reconsider EPA's prior conclusion that DCOT will be provided at reasonable cost to the regulated parties that will be captive customers.

6. The sole-source vendor may not provide the certification required under the Ferroalloys NESHAP.

The Ferroalloys NESHAP requires that the DCOT testing at EMI be validated and certified in accordance with 63 C.F.R. § 1625(b)(9). In addition, the Ferroalloys NESHAP

makes clear that such EPA's selection of DCOT and EPA's requirement that EMI use the method to demonstrate compliance "does not provide or imply certification or validation" of the vendor's technology; such certification is the responsibility of the EMI, the DCOT operator (who would be an EMI employee), or the vendor. *Id.* Since EMI does not believe the DCOT method is reliable and, in any event, lacks the technical expertise to validate the technology, Section 1.02(F) of EMI's RPF requested that the sole-source vendor's proposal "provide all documentation to guaranty that the supplied DCOT equipment meet all criteria in NESHAP, '§ 63.1625 (b) test methods (9)'. . . ." Exhibit 1 at 4.

The vendor's response indicates that he does not intend to offer any warrantees with respect to his technology:

> The idea of a warrantee of all this for fitness of a particular purpose? My license agreement, as does every software license agreement I have ever signed, specifically disclaims warrantee for merchantability and fitness for any particular purpose. I believe the international standard of operations specifically disclaims warrantee for merchantability or fitness for any specific purpose, unless the purpose is very specifically and narrowly defined. The ASTM D7520 requirement is IEEE 12207 like, not peer review.

Exhibit 2 at 11. The net result of the vendor's unwillingness to provide such assurances is that the two parties that claim DCOT will provide reliable results – EPA and the vendor to whom EPA has granted a monopoly – have expressly refused to accept responsibility for this claim, and the one party that does not believe that DCOT will be reliable – EMI – would be forced to provide such certification just to remain in operation.

In light of the vendor's refusal to stand behind its suitability for meeting the Ferroalloys NESHAP's requirements, the Administrator should reconsider his conclusion that DCOT will provide reliable results under the Ferroalloys NESHAP.

B. United States v. Maynard Steel Casting Company (E.D. Wisc.)

On March 1, 2017, the United States filed a complaint and proposed consent decree (Exhibit 3) with the U.S. District Court for the Eastern District of Wisconsin. The proposed decree is currently undergoing public review and comment. Paragraph I.A. of the decree alleges that the respondent had violated the Clean Air Act by operating four electric arc furnaces at its steel foundry "without installing and maintaining pollution control equipment adequate to control emissions of particulate matter within the limits of its federally-enforceable state permit."

Section 1.1 of Appendix C to the consent decree (Exhibit 4), describes the respondent's main shop building, including a rooftop "penthouse" that runs along the centerline of the roof for the length of the building. The penthouse appears similar in configuration to the open roof vents

that run along the centerline axis of EMI's shop buildings, with one significant difference: the sides of the "penthouse" are covered on both sides by hinged window panels, while EMI's roof vents are completely open on both sides. Thus, while fugitive particulate emissions from the "penthouse" will be localized at window panels that are partially open, damaged or misaligned, emissions from the EMI roof vents are unrestricted along their entire length. As EMI has pointed out to EPA in the past, the locations from which visible emissions will exit the open roof vents is highly variable, based on changing external wind and weather conditions, as well changing thermodynamic effects within the shop building.

The consent decree provides for the respondent to conduct fugitive opacity measurements using the same DCOT technology required under the Ferroalloys NESHAP (see Exhibit 3 at ¶¶ 45-49 and Exhibit 4 at § 2.1). However, in contrast to EPA's approach to DCOT in the Ferroalloys NESHAP rulemaking, including the Ferroalloys NESHAP Reconsideration, in the Maynard Steel consent decree, EPA (1) repeatedly acknowledges and provides accommodations for the risk of "unforeseen equipment difficulties that prohibit obtaining a valid opacity observation (*e.g.*, hardware/software breakdown, challenges with processing captured images, etc.)," (Exhibit 3 at ¶ 45; see also ¶¶ 47, 48), and (2) expressly provides the respondent with the option of using Method 9 in lieu of DCOT (see Exhibit 4 at § 2.2). "Rather than use the primary approach for daytime opacity monitoring, as detailed in Section 2.1 of this Protocol, Maynard may use EPA Method 9 (40 C.F.R., Appendix A-4), which relies on direct visual observation by a qualified observer." *Id.*

Despite the obvious similarities between the operations addressed in the Maynard Steel consent decree and the Ferroalloys NESHAP, EMI understands that enforcement orders and rulemakings are different legal processes, with different legal significance and focused on different policy objectives. However, the functionality and reliability of a specific test method, in this case DCOT, that is common to both actions is a technical constant and does not change depending upon why the method is being used at a particular site.

In the proposed consent decree, EPA acknowledges the implementation uncertainties raised by EPA and other commenters in the Ferroalloys NESHAP rulemaking process. In the proposed consent decree, EPA provides the alleged violator with the flexibility to use Method 9 in lieu of DCOT, as EMI and Felman Production requested in the Ferroalloys NESHAP rulemaking process. In light of the Agency's inconsistent approach to the technical reliability of DCOT, the Administrator should reconsider the Ferroalloys NESHAP Reconsideration's conclusion that ferroalloys producers should be denied the right to use Method 9 to demonstrate compliance with fugitive opacity standards.

Moreover, the Administrator should explicitly address the timing of EPA's release of the proposed consent decree in relation to the timing of its action on prior petitions for reconsideration of the DCOT requirement in the Ferroalloys NESHAP rulemaking. The Ferroalloys NESHAP Reconsideration public comment period ran from July 12 through August 26, 2016, almost exactly as EPA was executing the proposed consent decree between July 11 and

August 24, 2016. However, the United States did not publicly disclose the consent decree until March 1, 2017, long after both the public comment period and EPA's release of the Ferroalloys NESHAP Reconsideration.

III. Request for Reconsideration and Stay Pending Reconsideration

In the absence of a timely knowledge of the matters raised in this petition, it was impracticable for EMI and other members of the public to comment fully or present all relevant objections for inclusion in the rulemaking record prior to promulgation of the Ferroalloys NESHAP Reconsideration. Accordingly, EMI requests that you reopen the public comment period for forty-five (45) days to provide EMI and other members of the public with a fair opportunity to comment on these new matters of central relevance.

EMI also requests that you stay the effectiveness of 40 C.F.R. §63.1625(d), to the extent that it requires the use of DCOT to demonstrate compliance with the Ferroalloys NESHAP, for up to three months while the Agency receives, considers and addresses public comments with respect to such matter. EMI has expended millions of dollars in capital investments in implementation of the Ferroalloys NESHAP. However, EPA's decision to determine EMI's compliance with opacity limits using a monitoring technology unsuited to the task makes it highly uncertain what conditions EPA ultimately will deem "compliant" with the new shop building opacity standards.

For these reasons, EMI respectfully requests that you grant this petition for reconsideration and stay.

Sincerely

John A. Rego
On Behalf of Eramet Marietta Inc.

Enclosure

cc: Ms. Laure Guillot
Chief Executive Officer
Eramet Marietta Inc.
(w/encl.)

Exhibit 1

Request for Proposal – DCOT

Eramet Marietta Inc. ("EMI"), located at 16705 State Route 7, Marietta, OH 45750-0299 is requesting a proposal for the purchase, installation and maintenance of a Digital Camera Opacity Technique ("DCOT") for opacity reading, measuring and reporting to demonstrate compliance with the new National Emissions Standards for Hazardous Air Pollutants: Ferroalloys Production effective from July 1, 2017 ("NESHAP").

NESHAP 'Final Rule' and 'Final Rule notice of final action on reconsideration' are available in the Federal Register under references: [EPA-HQ-OAR-2010-0895; FRL-9928-66-OAR] RIM 2060-AQ11 and [EPA-HQ-OAR-2010-0895; 9958-01-OAR] RIM 2060-AS90.

1.01 Background information

EMI operates a manganese alloys production facility through pyro-metallurgical process. The production process takes place in 3 separate process buildings: C1F where the electric arc furnace #1 is located ("F1"), C2F where the electric arc furnace #12 is located ("F12") and C3F where the metal oxygen refining unit is located ("MOR").

Process gas and fumes are collected by mean of capture systems. In order to comply with NESHAP, EMI must measure opacity of residual fugitive emissions at roof line by mean of **DCOT** and **ASTM D7520-16**.

Process fugitive emission sources

EMI produces different types of manganese alloys: ferromanganese including refined and silicomanganese.

In buildings C1F and C2F the following process steps take place that can be the source of process fugitive emissions: raw material feeding and smelting, furnace taping into ladles, ladles slag raking, molten metal pouring into casting beds for metal cooling. A furnace process cycle is the period in which a furnace is tapped to the time the furnace is tapped again and includes periods of charging, smelting, tapping, casting and ladle raking.

In building C3F the following process steps take place that can be the source of process fugitive emissions: metal transfer by pouring metal from a ladle to a convertor, oxygen blowing into convertor, molten metal pouring into casting beds for metal cooling.

The molten metal temperature varies depending on the type of alloys and with the different process steps. This among other factors, influences the formation of plumes.

Process fugitive emission to be monitored at roofline

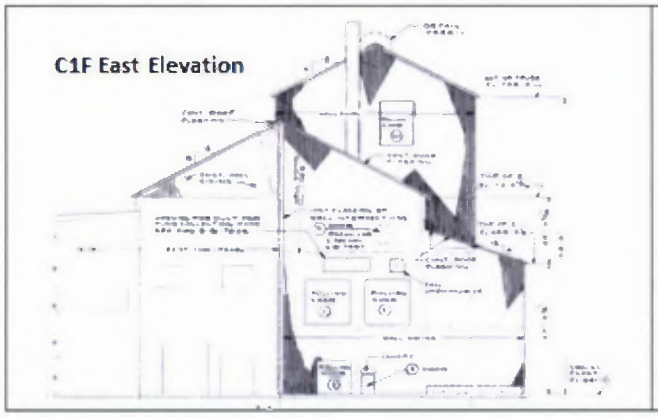
Plumes from process residual fugitive emissions do not follow a homogeneous draft like stack emissions do. Rather they follow a variable pattern before they reach the roofline and exit each building.

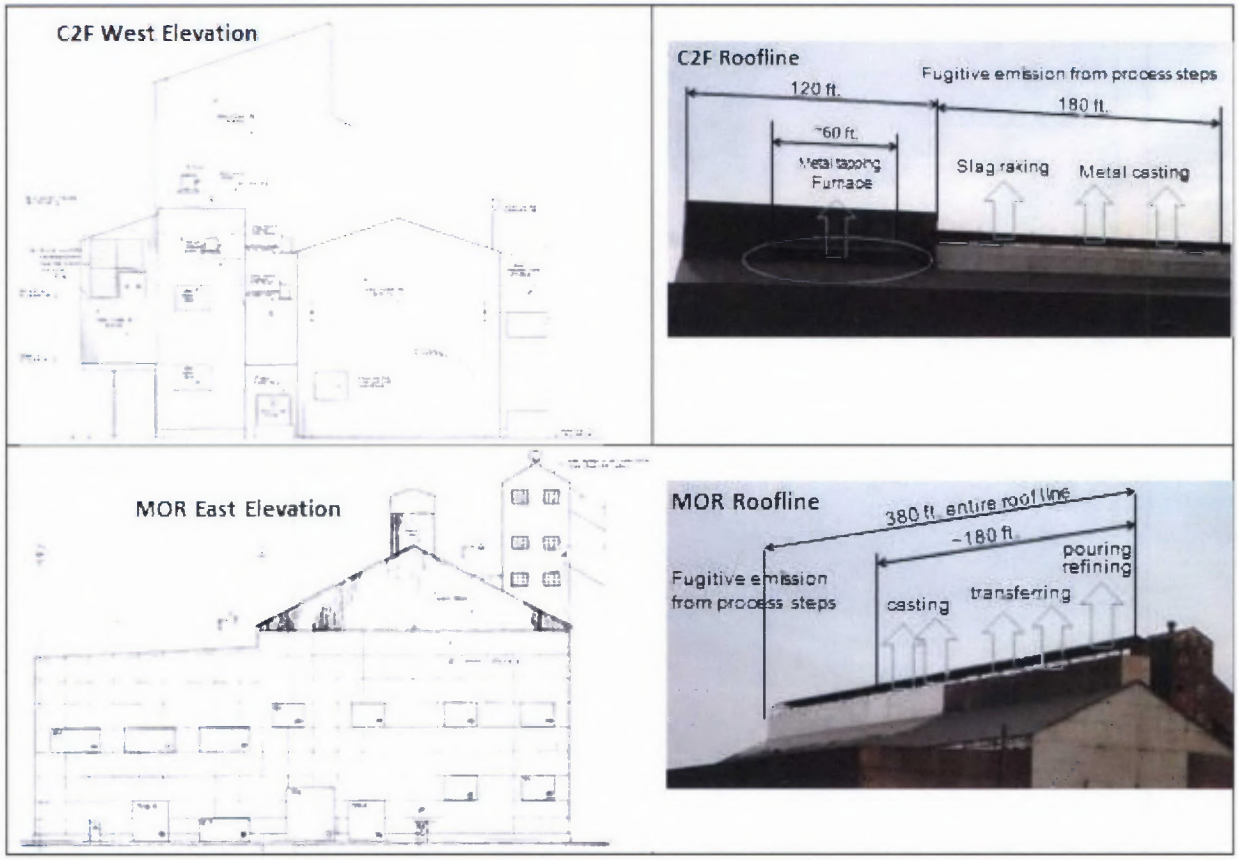
Each process step described above produces different fugitive emissions in terms of temperature and density. Throughout a 365 day period, plumes flow rate and path will vary significantly with differences in temperature and pressure inside and outside the building; cross drafts inside the building generated by indoor activities also play a role.

Plumes must climb between approximately 80 to 100ft. depending on the process steps, before they reach the roof top and exit the buildings.

The shape and height of a plume from fugitive emissions, once it exits the building roofline is likely to be significantly abated and spread close and across the roof line by external wind as the flow velocity changes with the above mentioned parameters.

Plant Flyover Photo





Opacity readings NESHAP "§ 63.1625 (d)"

Opacity readings are to be made at least once a week. Monitoring frequency may be reduced to once per month after 26 weeks subject to certain conditions.

For C1F and C2F the readings must be collected over a complete furnace process cycle. A complete furnace process cycle typically lasts between 90 and 120 minutes tap to tap. The readings must in any event, be collected for a minimum of 60 minutes.

For C3F the readings must be collected over a MOR process cycle. A MOR process cycle is defined as a fixed 60 minutes period; it must include at least one pouring.

Opacity limits NESHAP "§ 63.1623 (b)(3)"

Process fugitive emissions opacity requirement is described as follows in NESHAP:

"(3) Unless you meet the criteria of §63.1623(b)(3)(iii), you must not cause the emissions exiting from a shop building to exceed an average of 8 percent opacity over a furnace or MOR process cycle.

(i) *This 8 percent opacity requirement is determined by averaging the individual opacity readings observed during the furnace or MOR process cycle.*

(ii) *An individual opacity reading shall be determined as the average of 24 consecutive images recorded at 15-second intervals with the opacity values from each individual digital image rounded to the nearest 5 percent.*

(iii) *If the average opacity from the shop building is greater than 8 percent opacity during an observed furnace process cycle, the opacity of two more furnace process cycles must be observed within 7 days and the average of the individual opacity readings during the three observation periods must be less than 8 percent opacity.*

(iv) *At no time during operation may the average of any two consecutive individual opacity readings be greater than 20 percent opacity."*

1.02 Scope of Work

A-Review of EMI's process fugitive emissions to guaranty that the DCOT equipment offered complies with the NESHAP requirement.

******* *Supplier acknowledges that it has the necessary equipment knowledge to complete this project. Supplier is responsible to thoroughly review the plant conditions at EMI and certifies that the equipment is able to function properly in the plant conditions and other conditions which are present on site as is known, or should be known, by Supplier that either will or has potential to impede the DCOT operation to include reading, calculating average and peak opacity and reporting.*

B-Selection of the necessary equipment (hardware and software) that complies with EMI's conditions and is able to record opacity in the range set in NESHAP including ASTM D7520-16 requirements as they are incorporated in NESHAP by reference.

The proposal shall describe all necessary hardware equipment to perform the task including type of camera, camera stand, computer (size, memory, display, etc...) and computer interfaces including type of connection (fiber-optic cables, wireless, etc...).

The proposal shall describe all software required for data collection, data storage and retrieving, pictures analysis, statistical calculations and reporting as well as hardware specifications (computer or other devices) to guaranty software performance and data storage to comply with NESHAP.

C-Installation of all equipment including but not limited to cameras, software, hardware necessary for DCOT to operate.

D-Testing of all equipment once installed, to ensure that they meet the necessary requirements.

E-Training of designated DCOT users: It is expected that a minimum of 3 EMI employees or contractors will have to be trained.

F-Documentation: provide all documentation to guaranty that the supplied DCOT equipment meet all criteria in NESHAP, "§ 63.1625 (b)*test methods*(9)"

******* *Supplier acknowledges that where independent technology users certification is required, Supplier shall provide written declaration of independence from said qualified users.*

******* *Supplier acknowledges that its technology (including analytical process where human intervention is needed) has been peer-reviewed and shall provide certification of the said reviews.*

1.03 Outcome and Performance Standards

Inspection: At any reasonable time, EMI, or its representatives, shall have the right, but not the obligation, to witness, inspect, or test the provided Services to verify Supplier's compliance with its obligations. If EMI deems that any Services do not conform to the requirements, Supplier shall immediately take effective measures to satisfactorily correct such condition within a reasonable time.

EMI's presence, observation, inspection, or testing shall not relieve Supplier from any of its obligations or responsibilities.

Performance testing, test method and compliance demonstration: the supplier performance shall meet the requirement in NESHAP, "§ 63.1656" for determining opacity

1.04 Deliverables

Time frame for Completion: Within 3 months from the date the order is placed, the DCOT will be operational. The supplier shall commit to meeting the deadline.

Cost estimate: Supplier is expected to provide, as part of this Request for Proposal, a detailed cost sheet including:

CapEx Costs:

a. cost of review of EMI's process fugitive emissions
b. cost of equipment including required spare equipment and spare parts,
c. cost of license fees, subscription fees,
d. cost of installation and start up,
e. cost of initial training

Yearly Operating Costs:

f. cost for weekly reading, analysis and reporting
g. maintenance program fees,
h. helpdesk fees,
i. cost for compulsory re-training,
j. cost of equipment maintenance,
k. cost of periodic calibration,
l. cost of consumables

Note that f. must be detailed to allow EMI to evaluate costs per building and change in costs should the frequency of reading be greater than a week or less than a week

Points of attention:

Supplier is expected to provide detailed information for the following:

- Camera make and model with certification and requirement for recertification
- Opacity reading and analysis: Software version reference, evidence of quality control of software readiness, integrity and reliability
- Opacity compliance calculation and reporting: Software version reference, evidence of quality control of software readiness, integrity and reliability
- Evidence of quality assurance and quality control system for software upgrades
- Evidence of compliance with slant angle, distance and still images requirements when analyzing images collected over a furnace process cycle (typically 90 to 120 minutes) and a MOR process cycle (by definition 60 minutes); evidence of an all seasons readings reliability over a process cycle (as sun angle changes at different speed from summer to winter)
- Consideration on precision and bias in ASTM D7520-16 and how this may impact on the reliability of the requirement in NESHAP "§ 63.1623 (b)(3)(iv)" (see above in paragraph Opacity readings)

- Training: training requirement such as "Method 9" training or other regulatory trainings involving certification must be addressed if applicable, including training provider and references
- If DCOT is sold as a SaaS (Software as a Service),
    - evidence of SaaS security
    - if human intervention is required for the software to read opacity, evidence of any DCOT operator training and qualification throughout the term of the SaaS contract
    - guaranteed maximum turnaround time for the result of an individual reading to be obtained
    - guaranteed maximum turnaround time for the result of an average two consecutive readings and process cycle opacity average to be obtained
    - draft Service Level Agreement including the above guarantees.

1.05 Term of the Contract

The term of this contract will be until final acceptance; however EMI shall have the right to terminate for material breach, or bankruptcy, of Supplier.

EMI may terminate for reasons other than material breach of Supplier upon thirty (30) days prior written notice to Supplier and upon the written election of EMI, Supplier shall thereafter cease providing Services.

A separate service and maintenance contract may be executed for the ongoing service and maintenance program, if accepted by EMI.

1.06 Contractual Terms and Conditions

Warranties: Supplier represents and warrants to EMI that all equipment and materials provided under this Agreement will be new; of good quality; free of defects; fully suitable for their intended purpose and work environment; and satisfactory to complete the Services. EMI shall notify Supplier of any non-conforming goods or services, and the items shall, at the election of EMI, either be replaced by Supplier or be rejected as non-conforming and removed from EMI's premises by Supplier.

In addition to the specific guarantees required, Supplier guarantees that all work to be performed and all materials to be furnished by Supplier are in strict compliance with all conditions of this request. Supplier further warrants and guarantees the work to be performed and materials to be furnished against defects in materials or workmanship for a period of three years from the date of written acceptance. Supplier shall, within a reasonable time after receipt of written notice thereof, make good any defects in materials or workmanship, including replacement of any equipment or materials that are not functioning according to specifications, which may develop during said three year period, and any damage to other work caused by the repairing of such defects, at its own expense and without cost to EMI, including replacement.

Confidentiality: EMI may disclose, and may continue to make available to Supplier confidential and proprietary materials and information ("Confidential Information"). "Confidential Information" shall mean and include information disclosed by EMI or known by Supplier through performance of the Services, which is not known to the general public, including, but not limited to, EMI's internal operations and business methods, business opportunities, finances, financial data, accounting methods, customer names and lists, customer files, customer prospects, business plans, purchasing information, sales information, marketing information, formulas, software, technology, databases, manuals,

procedures, reports, products, processes, services, inventions, research and development information, data retrieved through DCOT monitoring or provided for DCOT monitoring. Supplier agrees to consider all such information highly confidential whether or not the information is so marked.

Supplier shall maintain the confidentiality of EMI's Confidential Information and will not disclose such Confidential Information without the prior written consent of EMI. The obligation not to disclose Confidential Information shall survive the termination of any Agreement.

Supplier is not authorized to use any empirical data obtained on the DCOT for its own commercial purposes.

Subcontractor and Contractor Employees: Supplier assumes full responsibility and liability for acts, negligence, or omissions of all of (i) Contractor's employees on the project, (ii) Supplier's subcontractors and their employees, and (iii) all other persons doing work relating to the Services under any contract with Supplier.

Compliance with Laws: Supplier shall comply with all federal, state, and local laws, ordinances, rules, regulations, and orders of all governmental authorities relating to the performance of the Services (collectively referred to as "Laws"). Supplier shall give all notices required under any Law. If any of the Services requested are at variance with any Law, Supplier shall notify EMI promptly of such variance. If Supplier performs any Service knowing or having reason to know that it is contrary to any Laws, Supplier shall bear all claims, costs, losses, and damages caused by, arising out of, or resulting therefrom. Except where otherwise expressly required by any Law, EMI is not responsible for monitoring Supplier's compliance with any Laws.

Independent Contractor: EMI and Supplier shall at all times act as independent parties and nothing shall be construed or implied to create an agency or partnership between these two separate entities.

Supplier will be required to comply with all EMI Liability and Insurance Policies.

Supplier will be required to comply with all EMI Safety Procedures and Policies.

EMI reserves it right to audit supplier's facility during the warranty period.

1.07 Payment, Incentives and Penalties

Payment: EMI payment structure to Supplier would be as follows:

1.) The first 30% of total purchase price when DCOT is ordered,
2.) The second 30% of total purchase price when DCOT is installed,
3.) 30 % when DCOT runs continuously for 3 consecutive months without any problems ("EMI final acceptance"); and
4.) The remaining 10% after DCOT has been working without any interruptions, of whatever reason, for a period of 12 consecutive months and the reporting requirements in NESHAP "§ 63.1656"for opacity readings have been met without malfunction.

Penalties: If Supplier breaches the warranties, in full or in part, as indicated above, especially warranty of fitness for a particular purpose, EMI, at its sole discretion shall have the right to rescind the contract, revoke the services AND recover any and all direct, incidental and consequential damages; including, but not limited to, a full refund of the purchase price.

1.08 Supplier's responsibility

Each proposal should address each point of this request and fully answer all requirements. **The proposals should be submitted by March 17, 2017 at 5:00 pm EST.**

The supplier shall make its proposal as comprehensive as possible so that EMI may make a definitive and final evaluation of the proposal benefits without delay.

EMI shall not be liable for any expenses incurred in connection with the preparation and submission of a proposal in response to the RFP. EMI shall not reimburse suppliers for their expenses under any circumstances, regardless of whether the RFP process proceeds to a successful conclusion or is abandoned by EMI at its sole discretion.

1.09 Evaluation and Award Process

This inquiry is not a commitment to purchase and shall not bind EMI in any manner.

All proposals received will be evaluated internally and all parties will be notified of the decision within fifteen days from the submission date.

The supplier is invited to provide customers references to support its proposal.

1.10 Points of Contact for future communications

Laure.guillot@erametgroup.com
Tel: +1(740)376.5914

Paul.castle@erametgroup.com
Tel: +1(740)376-5921

Exhibit 2

Laure Guillot

From: SHAWN DOLAN <[redacted]>
Sent: Wednesday, March 15, 2017 10:40 AM
To: Laure Guillot
Cc: SHAWN DOLAN
Subject: RE: DCOT Request for Proposal

Laure,

Thank you, see inline as well as:
A set is composed of any 24 consecutive images with the opacity values from each digital image rounded to the closest 5%. Sets need **not be** consecutive in time.

217 possible 6 minutes averages in one hour, is a rolling 6 minute average, very hard to comply to, corresponds to the CA Method 9 rule. E.g. if I have 26 images, 15 seconds apart you get (3) 6 minute averages, 1-24, 2-25, 3-26, each being a "consecutive 6 minute opacity" so if your high for 1 minute you will exceed the 2 consecutive readings……

In your case you have a set of sets to work with "individual opacity readings" in sets of 24, with the AVERAGE of the set being the opacity value, and no two consecutive sets may be over ……. If you do not define this it will be interpreted as a rolling average "EPA Preferred", e.g. you interpreted it this way. If we define the set, your 8% limit is the "average of the averages" this is good for you. For instance what if the MOR cycle was 66 minutes, or even 62, what would that do to the consecutive average when the highs that occur in the pour are averaged with the lows that occur before and after.

Laure, please let me help. Your friend is the phrase "in no instance shall to sets overlap"

Thank you.
Shawn Dolan

From: laure.guillot@erametgroup.com [mailto:laure.guillot@erametgroup.com]
Sent: Wednesday, March 15, 2017 6:42 AM
To: SHAWN DOLAN
Subject: RE: DCOT Request for Proposal

Shawn

In 1 (first -)
Please can you explain what is the difference between:

ASTM7520-16

"8.4 A minimum of 24 consecutive opacity images shall be taken at 15-second intervals. These 24 images constitute a record set. Each image taken shall be deemed to represent the average opacity of emissions for a 15-second period"

"8.4.5 Opacity shall be determined as an average of 24 consecutive images recorded at 15-second intervals. Divide the recorded images into sets of 24 consecutive images. A set is composed of any 24 consecutive images with the opacity values from each digital image rounded to the closest 5%. Sets need not be consecutive in time and in no case shall two sets overlap. For each set of 24 images calculate the average by summing the opacity of the 24 observations and dividing this sum by 24.

NESHAP

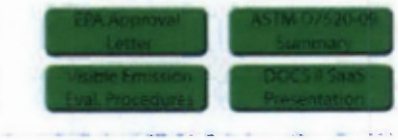
"§ 63.1623 (b)(3) (ii) An individual opacity reading shall be determined as the average of 24 consecutive images recorded at 15-second intervals with the opacity values from each individual digital image rounded to the nearest 5 percent.

In 1(second-)

Please can you explain why you say that you do not agree that A1.5.30.2 in ASTM D7520-16 does not correspond to a MOR process cycle. The text says that there are 217 possible 6 minutes averages in one hour, is that why you say that you do not agree and hope that I am wrong?

Are you therefore considering that the NESHAP rule can be interpreted such that the calculation is made on successive 6 minutes averages and not "rolling average"? YES, where do I send my bill, lol

I am confused as at the same time your documentation on your website makes reference to Method 9 and reads in Visible Emission Eval. Procedures (linked document on page 5-19): Note the APTI 325 course is not Method 9. As I explained people get certified as Visible Emission Observers (VEO's) and VEO's perform Method 9 which is a specific averaging methodology (specific equation). You have a "set of sets rule" Laure, that is as good as it gets, if defined correctly for the process being measured, e.g. what I do for a living.



Data Reduction

The method states:

> Opacity shall be determined as an average of 24 consecutive observations recorded at 15-second intervals. Divide the observations recorded on the record sheet into sets of 24 consecutive observations.

Taken out of context, this section has been used by defense attorneys to claim that the observer must take the first 6 minutes and average them, then the next 6 minutes and average them, and so on. This is not the case.

Best regards

==========
Laure Guillot
Chief Executive Officer
Eramet Marietta Inc.
Tel: +1(740) 376-5914
Mobile: +1 (740) 350-3798
e-mail: laure.guillot@erametgroup.com
==========

From: SHAWN DOLAN [mailto:sdolan50@msn.com]
Sent: Wednesday, March 15, 2017 3:31 AM
To: Laure Guillot
Cc: SHAWN DOLAN
Subject: RE: DCOT Request for Proposal

Laure, I answered as possible in-line below.

From: laure.guillot@erametgroup.com [mailto:laure.guillot@erametgroup.com]
Sent: Tuesday, March 14, 2017 7:09 PM
To: SHAWN DOLAN
Subject: RE: DCOT Request for Proposal
Importance: High

Shawn,

Before Eramet Marietta makes any decision I need some more clarifications:

1///Computing built in your software

From our exchange of mails, I understand that your product is not ready to meet the calculation requirements set in NESHAP § 63.1623 (b)(3) (copied in the RFP under opacity limits) I strongly disagree with this statement. "No NESHAP output exists in a certified version of DOCS II is a correct statement" but not ready to meet the calculation requirements is a big stretch given the calculation requirements are not complete.

- Can you confirm that your software is already built to calculate and report data reduction as described in 8.4, 8.5 in ASTM D7520-16 YES, (rule out the last sentence in 8.5) : This corresponds to a reading in NESHAP § 63.1623 (b)(3)(ii)? Do not agree
- Can you confirm that your software is already built to calculate and report data reduction for a one hour data set as per A1.5.30.2 in ASTM D7520-16 YES; one hour corresponds to a MOR Process cycle per the NESHAP rules? Do not agree and really hope you are wrong on this one.
- Can one extract from the analysis software that is calculating the opacity for each single image, a table with each single opacity value associated to one image (after the image has been quality checked by the DCOT operator) - table in a readable format to calculate averages ???? YES/NO, can extract into excel but averages calculated outside of DOCS II are not DCOT Output and violate certification, e.g. "Output" as defined in ASTM D7520-16, 7.1.3.
- Can you confirm that the software meets the requirement in 4.1 of ASTM D7520-16 YES, exemplifies last statement

2///Software as a Service (SaaS) versus software

- SaaS turnaround time: How fast can the opacity of an image be transmitted to the DCOT operator for QA/QC and corrective action, a few seconds, but most customers want much slower than that. Best is remote alert so the Ferro Alloy operator gets the alert and can immediately take corrective action.
    - Does the cost change with the response time? YES
    - What is the minimum guaranteed response time and the cost per image associated with it? Depends on the image, but DCOT's are not developed, certified or priced, to do anything on a "per image" anything. DCOT's do "Sets" and rules to create output which is part of the DCOT.....
        - There is no way I can say how much it would cost to analyze an image unless I completely controlled the image and the capture environment. Were the pictures taken by the accountant, the engineer, the technician, most important how far did they vary from the training. Or one does remote cameras, in fixed places with fixed time and the image quality is consistent and thus the cost is consistent.
        - Analysis Cost is all about the framing quality, image stabilization, variation between images in the sets, consistency with DCOT rule, e.g. Method 9, CA Method 9,, Method 9n, Dust.....as explained in previous email. Note old pricing was quoted by rule, and one

day hopefully there will be a FerroAlloy NESHAP rule that will provide the output agreed upon.

  - What is the maximum guaranteed response time and the cost per image associated with it? Only quoted after the consistency and quality of the image sets can be validated.
  - What is the typical response time? Every observation (set of images) is unique, contractual is now the methodology by account based on customer requirement.

- SaaS estimated running costs: can you update your tariffs (attached is the table) VT LLC no longer prices in this manor, picture variation is too high. All DOCS II customers now have site surveys that establish the picture quality, repeatability, output, cycle timing.....per last email.

- The DCOT operator can immediately interact with production operators for corrective actions should consecutive images show a trend towards an excess in opacity limit. The Virtual Technology software operator in Sri Lanka cannot interact with our production operators for corrective actions. Therefore it seems to be more efficient that the DCOT operator is trained to operate the analysis software rather than depending on a SaaS solution. What would be the annual license fee in that case? Why again can't the DOCS II Analyst from Sri Lanka, more likely Utah, AZ, NC, interact with the production operators? We are talking about a broadcast trend number? The production operators certainly get support from control equipment vendors, abb, GE, Koyo, etc who have call centers all over the globe handling support just like VT LLC. VT LLC is today in a position to license a DOCS II ERAMET, I have been thinking what we would need to do to go back to this approach. Quality Assurance, was the reason DOCS II was moved to SaaS. The VA DEQ proved it was not practical to assume a casual user (1 time every 6 months) could remember enough from training to perform a satisfactory job, (VT LLC's analyst passed the smoke school VA DEQ could not in the evaluation so mis-quoted in the record). Therefore, a QA oversite to insure PICTURE quality, and thus SaaS. We would have to develop a way to assure quality. I am interested in exploring this option but not for free.

3///Camera on a tripod versus fixed camera remotely controlled

- As the DCOS II requires a DCOT operator to check every single image for QA/QC, I see only limited time saving if any at all in a solution with fixed cameras remotely controlled. (DISAGREE, one assumes all operators are equal in this and that is not true.) At the same time I anticipate a costly implementation especially when being charged 2500$/day, I DISAGREE strongly: ALL software development standards (IEEE 12207, CMMI Level X, JAD, RAD, Agile etc., and configuration control standards and change management standards quote) the sustainability is a function of the quality of the requirement. Once the requirement is defined to the zeros and ones the rest is very inexpensive and sustainable. Poor requirements will definitely bring higher costs, that is documented all over the software world, e.g. why 8 of 10 software projects fail. I have done this for 30 years. all of my software project continue today, and are projected into the 2020's because they are built on a solid foundation and eliminated variation.
- I am seriously considering a camera on a tripod as the most cost effective option. Can you confirm that in that case the software and camera delivered "of the shelf" meet the requirement of 3.2.3 and 3.2.5. (YES if referring to ASTM D7520) and that Virtual Technology will certify it? Depends on IT?, are we referring to the camera? YES, or the Operator, YES, but only to the rules "image sets" certified in DOCS II. In that case my understanding is that only the training would need to be added (DCOT operator(s)/DCOT camera operator(s)) to get a solution ready to operate (safe for the points 1 and 2 above). Please confirm? As you said "attached is the quote you provided in 2015", this was the best approach then no doubt, Two years' worth of using this VERY Affordable approach, (Less than a day of DC lobbyist) would have ERAMET personel understanding all of what I am trying to convey. All the definition would be flushed out,

reduced to output and the baseline recertified. Per above I personally do not believe this approach is an option today. As I told Russ "we are talking a couple of thousand dollars to get a camera and start measuring the process. Pictures are very valuable in negotiating and there is a lot of gray areas to be addressed over the NESHAP implementation". Today there is less gray but its still there, e.g. I really hope you are wrong on A1.5.30.2 in ASTM D7520-16 representing a MOR cycle. That would be the most restrictive way to do it. You have a set of sets, which is the best for you. I still do not understand why Russ did not buy a subscription and use it to negotiate the NESHAP in 2012. This is why I went direct to you this time.

Thank you for the opportunity to again address your questions and concerns. Likely in April, you will have another point person to work with and yet another way of pricing. Maybe ASTM will change the standard in 2019, to allow single images and a spreadsheet, but that would have to go through big resistance, especially with all the limits gone. Do you really want to explore a ERAMET copy? If so we need to get down to talks sooner. I kind of like the idea, always have, as I believe in embedded controls and eliminating human error in the process.

However, I cannot have another VA DEQ reporting that DOCS is not good enough on black. Only 1 of 5 people who analyzed those horrible quality images, captured 6 months after VT LLC certified all of the trainees, could not get the right answers. That (1), Bill just got in a hurry and forgot to peer review his paper, to use your words. Good news is, when you get trained to be a Digital Camera Operator you will see the sets of VA DEQ pictures and analysis of that study. We use it our training to exemplify what not to do when taking a picture from a tripod, e.g. when VT LLC analyst (☺ in Sri Lanka I use that one tomorrow☺) see pictures like this (Pictures from VA DEQ), they are going to get rejected, because they are not: zoomed in tight enough; the sun is in the wrong place; the contrast selection is horrible; the shadows are right were the boxes need to go, no horizontal line of light, the foliage used is not a good background as it moves, ... Now follow the training and move the camera like this, frame the picture like this, use the foliage in an advantageous way, and they will look like this (VA DEQ certification pictures) at the same park, same smoke generator, same general position, 6 months earlier. There is a VERY noticeable difference, all DCOT operators are not the same.

If we can find a way to solve this risk for DCOT's I'm game, until April 10th.

Thank you
Shawn Dolan

Best regards

==========
Laure Guillot
Chief Executive Officer
Eramet Marietta Inc.
Tel: +1(740) 376-5914
Mobile: +1 (740) 350-3798
e-mail: laure.guillot@erametgroup.com
==========

From: SHAWN DOLAN [mailto: (b) (6)]
Sent: Sunday, March 12, 2017 6:27 PM
To: Laure Guillot
Cc: SHAWN DOLAN
Subject: RE: DCOT Request for Proposal

Laure thank you, I am sorry for the confusion. VT LLC would NEVER asked to be paid to response to a request for proposal.

VT LLC's product, DOCS II is an ASTM D7520-16 certified DCOT as required in the Ferro Alloy NESHAP. The specific application of DOCS II to the Ferro Alloy NESHAP requirements is custom to the facilities that require compliance to the Ferro Alloy NESHAP.VT LLC does not sell a product specifically for the Ferro Alloy NESHAP as your RFP implies. Thus the modifications required to automate the requirements of the Ferro Alloy NESHAP must be created for the specific customers.

Having invested over 10 million in the last decade to bring this product to market, along with the standards and testing required to support its use. DOCS II is a DCOT as defined by ASTM D7520-16 and is certified to the performance based requirements of ASTM D7520-16.

DOCS II has lots of options for implementation. Shoot from the hip, Method 9 like, with a hand held camera, or very sophisticated like the automated FlareWatch for the Gas and Oil sector. Each installation of DOCS II is specific to the customer's needs and the definition of the customer's needs is the effort you are asking me to do. VT LLC will gladly perform this definition task, as we are very qualified to do it, but I do not do this work for free. Bottom-line until the definition is good enough to apply it to a DCOT, (logic detailed enough to program a computer to do it), I cannot be expected to provide an accurate cost. With this said the answers to your questions/statements are in line below as possible.

Shawn
801 309 3626

From: laure.guillot@erametgroup.com [mailto:laure.guillot@erametgroup.com]
Sent: Thursday, March 9, 2017 7:25 PM
To: SHAWN DOLAN
Subject: RE: DCOT Request for Proposal

Dear Shawn,

I was somewhat taken aback by your business approach.
We have never entered into business with a potential supplier by paying consulting fee for a response to a request for proposal.

I have the following questions, comments on your mail below:

- The RFP does not specify that our furnaces and MOR operate typically 24/7, 360 days a year, I thought it could be a useful information:

  I need to physically see a furnace/MOR cycle before I would make any recommendation on appropriate equipment, or positions from which to monitor the event. I asked how often they occur from a scheduling perspective. I see in your reply these are running all the time, do emissions vary a lot by alloy? Would be another variable and possible schedule constraint.

- A furnace process cycle is defined in NESHAP §63.1622. it is not a matter of interpretation or adjustment.

  My stock in trade is the ability to form the level of interpretation and adjustment you are about to experience. I do feel there is a significant differences in very small adjustments that may be your best interest, and I only act in the best interest of my customers. E.g. Tapping to Tapping, if you run consecutive tapping's does one always finish before the other begins? If not, do you monitor both or do you end one and begin the next?, can both ends be monitored by a single camera at the same time? Where would we place that camera, or is it better to have cameras? Where would we measure in the frame?, what triggers the recording be started and stopped?....

- A MOR process cycle is per NESHAP §63.1625(d)(iv) a one hour period that includes one pouring. The process can start anytime as long as it includes one pouring.

  "Including a pouring" when the molten metal begins to pour?, or when it hits the cast?, and end when the cast is full? or when it sets, e.g. x minutes after the pour? Seems we could go longer than an hour? Start at the pour and average 50 min after?. Again this is NOT a recommendation as I have not seen the process, but I am trying to exemplify the ever so slight interpretations on start and stop times that make a difference.

- As written in the RFP, NESHAP §63.1623 (b)(3) specifies the limits for average opacity and peak opacity . I would expect the data reduction and calculation of opacity to be derived from method 9, I do not see what other means of calculation or data reduction could be used. therefore I am not quite sure why you are asking more details. Neither do I understand your comment on what you call "rolling 24" and "specific 24". I would expect that you have a good familiarity with Method 9 since your promote your solution as a substitute to Method 9. The explicit reference to Method 9 is to be found in ASTM D7520-16 which is incorporated in NESHAP by reference.

  Yes, I am very familiar, I am the technical POC for ASTM D7520-16 and have been for the past 6 years, Method 9 certified for years and years, so I am very familiar with the different "Method 9's". My stock in trade is, explaining the difference in accepted averaging methods aka rolling 24 and a specific 24, and in your case even more flexible a "set of sets". At the moment nobody is paying me to interpret this NESHAP, for implementation and automation at a facility. However without this definition, software cannot be written to generate the reports. Now if you want to say its rolling24 then the calculations can be done, or one could infer that the reference to Method 9 implies a specific 24. However, if specific 24 is to be used, then the next definition "consecutive", is required to calculate the average and peaks. Yes we do generic data reduction in DOCS II per the most common interpretations of "Method 9". However, your request is data reduction specific to the Ferro Alloy NESHAP and more specifically to ERAMET process. Thus it needs to be defined in accordance with what is best for you accepting the boundary constraints. and maximizing the flexibility of site specific automation.

- You mention that "*the level of logic is quoted previously as a long lead time item*". Could you be more specific? What is exactly available in your DCOT solution in terms of data reduction and calculation of opacity? (please refer to page 5 in 8.4 and 8.5 as well as page 15 in ASTM D7520-16 A1.5.29 and A1.5.30)

  Per our demonstration and my last proposal, we do Method 9 specific, Method 9 rolling, CA Method 9, AZ Instantaneous Survey, 203A and 203B, and total average. Since the demonstration we have added TX Method 9 and 22 survey, NWCAA Method 9n, FlareWatch per the G&O MACT, ooooa, CA Dust, AZ Dust. US EPA Method 9, ASTM D7520-16 defines a way of calculating an opacity for 24 readings in an observation, with exceptions and exclusion. However, Every one of the National Association of Clean Air Agencies (NACAA), has defined one or more ways of using opacity readings (images), how to collect them and reduce the data. Some every 5 sec. some every 15 sec. some wanting each set of 24 in the 240 (1 hour) reading set to be averaged, others looking for only the high count in the 240 set. Some looking for time out of compliance while others look for time in compliance and so on. You are very fortunate to have the definition you do to work with. Now its just a matter of how you decide to make that work for you. I believe a key phrase to you is what I wrote in ASTM D7520-16, A1.5.29.2 and specifically

"A1.5.29.3 The method continues:

"A set is composed of any 24 consecutive observations. Sets need not be consecutive in time and in no case shall two sets overlap." A1.5.30.2 is something you need to stay away from.

Knowing the difference in the data reduction is VT LLC's value add.

- When it comes to the guarantees, your company is the expert in your field, we have no expertise in DCOT. As DCOT is to be used to determine compliance with EPA regulations we must have guarantees (please refer to NESHAP §63.1656, §63.1657 §63.1659 §63.1660). Please specify exactly what guarantees you will provide.

  VT LLC guarantee's that DOCS II is compliant with and certified per the performance criteria of ASTM D7520-16. Further, the certification is specific to the camera used and images acquired. Images must be captured using a certified camera and in accordance with VT LLC's certified camera operator training, by a certified camera operator. Yes we are the expert in this field. We are in business to help industry comply with regulations. We have a DCOT that ideally is embedded into the customers process such that visible emission compliance is routine, defendable and sustainable. VT LLC's "product" is helping customers comply with specific visible emission regulations that effect their facilities. VT LLC sells consulting services, and the DOCS II family of products. VT LLC is familiar with the NESHAP you reference, as well as many other regulatory initiatives through the world associated with the measurement of Opacity. The final "Standard Operating Procedure" regarding how DOCS II is implemented into the ERAMET operations in a sustainable fashion to comply with the NESHAP is our expertise. One could assume it won't make a difference, I firmly believe it will, and VT LLC's stock in trade is helping you understand the options and risk such that you can make an informed decision.

- I do not understand your sentences "*Variability such as mentioned above, precludes the ability to make these warrantee's. I am quite certain ERAMET would prefer the flexibility to maximize variability in application, versus the rigidity of specific purpose. However, if you want rigidity, then I can conform but the level of detail will have to get much deeper*". Can you explain what that means?

Please read ASTM D7520-16 A1.5.29.2, there is a reason we wrote that in the standard. VT LLC's stock in trade is defining how things like that specific reference could be very beneficial when applied to the NESHAP in question. In summary to your question, for VT LLC to guarantee fitness for a specific purpose, we must have a means to determine compliance with the specific purpose, testable and verifiable, and independent of site specific variation (operators and emissions) . VT LLC can guarantee compliance with and certification to D7520-16 because there is a specifically defined certification test with a clear pass fail criteria, that is not dependent on site operations or emissions. VT LLC would never guarantee compliance with a NESHAP in operation as that is dependent on the clients operation's and emissions, two things VT LLC has no control over.

- I do not understand your sentences "*Perhaps you have already performed these definitions? However, if they were defined without respect the operation of a DCOT and specifically the Digital Opacity Compliance System Second Generation then we will need to revisit them.*" Can you explain what that means?

  Humans doing visible emission and cameras doing visible emission while very similar in many ways are different. Cameras are much more precise which is very good for start and end times, and repeatability. Humans not so much on ether score, e.g. ASTM D7520-16 A1.5.29.2. Thus if you have someone who is supposedly an expert in visible emissions but does not operate a DCOT help you define the definitions required, they will likely not be DCOT friendly. Please understand, I am a believer in visible emissions performed both with eyes and cameras and I know both very well. Your questions here tell me these definitions have not been performed, but they need to be in order for a computer to produce the desired results. Computers only know Zero and One, computers have to be told everything else, that is VT LLC's stock in trade.

Regarding a visit to our site, this can be arranged as long as the time is well spent. For that you have to be more specific on:

- How you intend to organize the day or days (furnaces and MOR operate 24/7, a typical furnace process cycle is 90 to 120 minutes there are 2 buildings hosting a furnace, a MOR process cycle is by definition 1 hour)

I would like to witness a day of each, and review the current SOP's used to perform the processes within the "cycle", I need to know what a valid stop and start to each process is, in the context of the cycle and the emission process time. We need to know, time from visible at the "process point" to visible at the roof exit..... I will need an facility guide, who knows the fastest most efficient way to make Ferro-Alloy, as I ask a lot of questions about process e.g. I'm a Six Sigma person. In addition to your best process/operations person an environmental compliance representative who can explain how Visible emissions have been monitored in the past and knows this NESHAP will be helpful. In the three days I would have on-site, I need know your process well enough to make a list of options and risks for implementing a DCOT to monitor these process. I need to understand the process value chain and the variables and most important the timing of the value chain.

- what you will need to do on site for each of the building, (observe and watch the process end to end and repeat).
- what equipment, material, support you would need to collect the information required for you to develop a response to our RFP.

We need the definitions explained above, and determination as to the boundary we can reliably operate in. Basically I need to observe the process and determine the variability of the process within the value chain to be monitored. We need to define the very finite of the rules to use to generate the observation reports desired, and the best positions for the camera(s), to include the ambient environments they must withstand. I will need timers and the ability to communicate inside and outside of the building at the same time (radio's/Cell phones).

I believe in a day we could agree on an observation plan, execute the plan over the next three days 1 per building, and then generate an options and risks brief for the 5th day. The options brief will enable informed decisions be made, allowing the RFP to be regenerated to include the specifics of the selected option. Then VT LLC would provide a you a response free of charge.

Note that

- you will have to go through a safety training for visitor (count 30min), we will provide PPE, no visitors are allowed alone on site, you will have a guide with you. Great and proper, assume I need steal toes?
- you will have to sign a Non-Disclosure Agreement (per the language in our RFP) Not sure I understand the per the language of the RFP but I have no issue with a standard Non-Disclosure agreement, have signed one for all customers to date.

Regarding costs to review our process fugitive emissions, if a visit to our site is agreed:

- 2500$ per day on site is high I would expect a commercial effort to enter in business, Not sure I understand commercial effort....VT LLC's daily rate is a lower rate than most attorneys and professional engineers, e.g. $250/hour on a normal 10 hour on-site day, e.g. 8 onsite and two making notes and action lists for the following day.
- we do not pay travel time, (I cannot travel for free, takes me out of billing my time all day to get from AZ to OH) so we need to agree on how to compensate for the time lost in travel, could do $250/hr door to door given that while on travel your project is all I will work on. Or we can bundle the trip at 7 days).
- we do not pay for the development of the response to the RFP. (I agree, that cost is on VT LLC)
- travel and accommodation expenses will be reimbursed at cost with copy of invoices (estimated cost to be agreed before travel). (VT LLC has never done this before, all VT LLC customers pay GSA Per Diem rates plus 10% overhead rate, to cover the administrative cost of making payment prior to being reimbursed by the customer, invoicing and collections, if VT LLC makes the arrangements. If ERAMET wants to make the arrangements and pay for the airfare, hotel, rental car, and M&IE direct that would eliminate the 10% surcharge).
- Payment will be made upon receiving your complete response to our RFP, (Payment for the consulting services that need to be performed, cannot be tied to a reply to your RFP. VT LLC will reply to the RFP when it is reissued with the content this consulting engagement adds to the definitions. Payment upon creation and briefing of the

"critical decisions required brief that will be prepared and briefed on the final on-site day as the exit consulting deliverable.)

- VT LLC is happy to pay the cost to propose to your RFP given we address the definitions required, in this consulting engagement.

Shawn
Best regards

==========

Laure Guillot
Chief Executive Officer
Eramet Marietta Inc.
Tel: +1(740) 376-5914
Mobile: +1 (740) 350-3798
e-mail: laure.guillot@erametgroup.com

==========

From: SHAWN DOLAN [mailto: (b) (6)]
Sent: Wednesday, March 08, 2017 12:58 AM
To: Laure Guillot
Cc: SHAWN DOLAN
Subject: RE: DCOT Request for Proposal

Thank you Laure,

I gave this a look through. Obviously I cannot present an accurate fixed price, without first visiting your facility and observing the "Furnace" and "MOR" process cycles, to include the transport operations, as the "Cycle" processes. It seems to me, the step of "Pouring the molten metal into casting beds" should be excluded from the "Furnace Cycle" if possible, in defining the length of the observations in CF1 and CF2. It appears the MOR is fixed at 60 min. but from when? Further, the definition of an i) "Individual Opacity Reading" and the selection of the ii) "24 Consecutive Images", particularly with respect to iv) whereby any 2 consecutive "Individual Opacity Readings" shall not be more that 20% needs detail. The difference between a rolling 24, versus a specific 24, when compared consecutively is significant. Both your RFP and the NESHAP are silent on this requirement. This is the level of logic that is required, quoted previously as a long lead time item. This logic is also likely the greatest overall project cost, and time driver. However, this is also the logic that will define pass or fail. Thus critical to get it correctly defined and sustainable.

Please contract me to come review your facility with you. Please lets work together as we watch these "cycles" and decide what it takes to meet the objective. The final definition of how to start and stop a "cycle" is critical to success. One or two images, (30 sec.) could be a very big difference, if pouring alloy is like pouring copper? We will then figure out how do we keep the parameters in balance and IF that can be achieved, a Six Sigma Failure Mode Analysis so to speak. Then we can determine the equipment that will withstand the heat, the power requirements, the maintenance, the security, the storage, the provisioning and spares, etc. But first we must define the "Individual Opacity Reading" as it relates to the "Furnace" and "MOR" "Cycle". If this can best be achieved with a single output definition that would be less expensive. However, the objective may best be achieved if the cycles differ particularly with respect to the roof line exit vents and the plume "rise" characteristics. It may be better to have a specific report for each "cycle", and multiple different types of cycles perhaps specific to alloy? But again you know the alloy business not me. Then I can formulate a cost to certify the output report(s). I don't know Ferro Alloy but I do know DCOT's and fugitive emissions.

In short, until I better understand what it will take to achieve the objective! Im not going to be recommending/providing any equipment/software/security/reporting/etal. The idea of a warrantee of all this for fitness of a particular purpose? My license agreement, as does every software license agreement I have ever signed, specifically disclaims warrantee for merchantability and fitness for any particular purpose. I believe the international standard of operations specifically disclaims warrantee for merchantability or fitness for any specific purpose, unless the purpose is very specifically and narrowly defined. The ASTM D7520 requirement is IEEE 12207 like, not peer review. Peer review is usually applied to research papers, and academia prototyped and unsustainable projects. Software maturity is based in repeatability, reproducibility and sustainability, of process, from requirement through design, develop, test, deploy, test, deploy, measure and improve, requirements, e.g. why we must have a very well defined requirement. If you want to pay for a redundant peer review, and we can agree on a competent "peer" then I'm happy. Variability such as mentioned above, precludes the ability to make these warrantee's. I am quite certain ERAMET would prefer the flexibility to maximize variability in application, versus the rigidity of specific purpose. However, if you want rigidity, then I can conform but the level of detail will have to get much deeper.

I charge $500/travel day in continental US, $2500/day on site, $1000/day office time, plus expenses @ actual + 10%, due upon receipt. I know that the Furnace cycle is a costly thing to perform, how often is the furnace cycle repeated in each facility? Are we talking about a daily occurrence or multiple cycles in a day?

Consulting fees are time based and non-refundable. You would know how long we will need on site to observe the Furnace and MOR cycles enough to perform the definitions stipulated. I would hope we could do in three days and I would hope that could be next week. Perhaps you have already performed these definitions? However, if they were defined without respect the operation of a DCOT and specifically the Digital Opacity Compliance System Second Generation then we will need to revisit them.

Respectfully, I cannot answer this RFP as written, as you are asking me to price an unknown and undefined requirement and then to warrantee the unknown for compliance to an undefined. Yes, I'm a small business driven to achieve, but frankly any company that would fix bid a contract like this is not someone I would want to do business with. Lets please get a site survey completed determine what it will take to meet the objectives. Then Ill gladly price that requirement going forward in a turnkey manor as requested. However, I will not warrant for merchantability or fitness for any specific purpose other than to measure the opacity of visible emissions.

I need to be in Morenci on Saturday the 11th, and in Phoenix on Friday the 17th , could come to Ohio Sunday through Thursday if that is enough time to define the Cycle(s) and the Individual Opacity Readings and how they are defined as consecutive. The following week is better if we need a full week to get the definitions defined, e.g. we need to see the emissions from the cycles with respect to time from the point of emission to the point of externally visible emission, so will likely need to have some support staff, good radios and multiple timers.

Thank you, I do look very forward to meeting, and I thank you for your time and effort in this matter. Ill call ya in the morning to discuss in more detail. Sorry for the long email this detail is what I wanted to speak about previously. Until these concerns are defined nobody can move forward without risking disaster. I have avoided disaster for 30 years in this business by making certain we are all on the same page when we start and finish.

Shawn Dolan
801 309 3626

From: laure.guillot@erametgroup.com [mailto:laure.guillot@erametgroup.com]
Sent: Tuesday, March 7, 2017 5:43 PM
To: SHAWN DOLAN
Subject: DCOT Request for Proposal
Importance: High

Dear Shawn,

You will find enclosed Eramet Marietta Inc. Request for Proposal for DCOT.
We look forward to Virtual Technology llc. response not later than Friday March 17, 5pm EST
Best regards

==========
Laure Guillot
Chief Executive Officer
Eramet Marietta Inc.
Tel: +1(740) 376-5914
Mobile: +1 (740) 350-3798
e-mail: laure.guillot@erametgroup.com
==========

From: SHAWN DOLAN [mailto:sdolan50@msn.com]
Sent: Friday, February 17, 2017 8:14 PM
To: Laure Guillot
Cc: SHAWN DOLAN
Subject: RE: DCOT

Thank you Laure, for the reply, sorry for delay was waiting to get an answer.

A lot of good has transpired since we spoke. We have implemented more systems around the world, updated all the standards, the World Bank set the best example of environmental stewardship ever, we got a republican president, my AZ senators got reelected. I was able to attend the inaugural ball.....

I reached out to you because I committed to you, we would make DOCS II work for you. If you want to talk I am open to making DOCS II work for ERAMET as I promised. July is not very far away, your notes certainly reflect the long lead time items.

With regards to your request, the worlds industrial complex and DOCS II subscribers were a little taken back by the propaganda that got published on regulations.gov. At this moment, association with your matter is not desired. Sorry, I understand their position, and my customers wish is my command. I have a green light to describe capability as we built/tuned it, over the last two years and a maybe, if we are on the same team.

I would never comment on the progress/status of any open environmental concern but as you know, a year is not long in that world. I can say things are better and more advanced today than a year ago.

If our discussions warrant, I will put you in contact with the security vendor (camera), stack testers, cloud/network service provider, we used. You likely already have favorite contractors in these areas and VT LLC (I) prefer to use local vendors for the onsite services. I have no idea what you desire so until I know that, I wouldn't want to involve others anyway.

I look forward to a meeting time and date. I'll be at the 4C conference in Austin next week (great Air conference be great if you could attend) and then to Mexico, I can meet the second week of March 12-19 at the moment. I am assuming DOCS II will belong to a multi-national soon, and I will no longer be in a position to offer any customer configuration.

In this acquisition process, I am trying to be sure to live up to any and all promises I made along the way. I do look forward to turning this technology over to one of the suitors.

Thank you for your time and effort in this matter. Have a great weekend hopefully we will speak soon. Ill try your cell Monday from the show.

Shawn Dolan
President
Virtual Technology LLC
801 309 3626

From: laure.guillot@erametgroup.com [mailto:laure.guillot@erametgroup.com]
Sent: Wednesday, February 15, 2017 10:16 AM
To: SHAWN DOLAN
Subject: RE: DCOT

Good afternoon Shawn,

Thank you for your mail.
I appreciate your desire to get satisfied customers and I will revert at a later stage regarding a potential meeting.
Looking back at my notes from our earlier contact in 2015, I remembered that you were in the process of deploying your technology at Maynard Steel in Wisconsin.
At the time we had asked you for a contact person that we could talk to for reference
If I am not mistaken, you did not consider a contact could be established yet due to the fact that this company had other priorities linked to environmental considerations.
I assume that after more than a year your technology is now in place at Maynard steel.
Could you provide me we a contact that we could approach to hear about their experience with implementation and operation of DCOT?

Best regards

==========
Laure Guillot
Chief Executive Officer
Eramet Marietta Inc.
Tel: +1(740) 376-5914
Mobile: +1 (740) 350-3798
e-mail: laure.guillot@erametgroup.com
==========

From: SHAWN DOLAN [mailto (b) (6)]
Sent: Tuesday, February 14, 2017 7:59 PM
To: Laure Guillot
Cc: SHAWN DOLAN
Subject: DCOT

Hello Laure, I pray your holidays where wonderful and your family is doing well.

As you likely know I am the owner of Virtual Technology LLC and the Digital Opacity Compliance System Second Generation. DOCS II is the only ASTM D7520/USEPA Alternative Method 082, Digital Camera Opacity Technique, commercially available.

I have been working in the visible emissions business for many years as we spoke during my web demonstration so long ago.

I would like to speak directly with you regarding options, as to how we can best achieve the cost effective implementation of DOCS II, for ERAMET. My desire is, how do we make a DCOT successful at ERAMET. Perhaps the best option might be that ERAMET purchase/license the DOCS II technology stack and implement it as desired.

I know there was a lot of "DOCS II only does XYZ" in this journey. However, I maintain my original remark, I want customers who get value from my products and services. They are my products and services and I am open to implementing them in whatever way meets my customers', requirements, goals and objectives.

I have customers who have embedded the technology into control systems, customers who do 24/7/365 monitoring and kick exceptions for analysis, replacing COM's and CEMS, customers who do their own analysis, and customers who are repurposing the technology into various other markets.

I feel if we meet in person, you tell me how you want this to work, I'll explain absolute capability and any restrictions or problems we may encounter to adapt to your vision, we decide a path forward that brings value to ERAMET and get this done.

I am truly open to any solution we can innovate, given it fits with standards, etal. The ASTM meeting is coming up in April and I still chair the technical committee.

Please reply with your direct phone contact or feel free to call my cell phone 801 309 3626.

Thank you so very much for the opportunity to offer you my finest service, and your time and effort in this matter.

Shawn Dolan
President
Virtual Technology LLC
801 309 3626

CONFIDENTIALITE
L'information contenue dans ce courrier électronique et ses pièces jointes est confidentielle, et est établie à l'intention exclusive de ses destinataires. Dans le cas où ce message ne vous serait pas destiné, nous vous remercions de bien vouloir en aviser immédiatement l'émetteur et de procéder à sa suppression. Toutes copies, diffusions ou accès non autorisés à ce message sont interdits à toutes personnes, autre que le(s) destinataire(s). Un courrier électronique est susceptible d'altération ou de falsification et peut entrainer des pertes et/ou la destruction de données. Le Groupe ERAMET et/ou ses filiales déclinent toute responsabilité en la matière. En conséquence ce courrier électronique ainsi que ses pièces jointes sont utilisés à votre propre risque.

CONFIDENTIALITY
The information contained in this e-mail and any accompanying documents is confidential or otherwise protected from disclosure. If you are not the intended recipient, please immediately alert the sender by reply e-mail and delete this message and any attachments. Any copy, dissemination or unauthorized access of the contents of this message by anyone other than the intended recipient is strictly prohibited. E-mails may be susceptible to falsification or alteration and cause data corruption

Exhibit 3

IN THE UNITED STATES DISTRICT COURT

FOR THE EASTERN DISTRICT OF WISCONSIN

UNITED STATES OF AMERICA,

Plaintiff

v. Civil Action No.: ____

MAYNARD STEEL CASTING COMPANY,

Defendant.

CONSENT DECREE

TABLE OF CONTENTS

Section		Page
I.	BACKGROUND	1
II.	JURISDICTION AND VENUE	3
III.	APPLICABILITY	4
IV.	DEFINITIONS	5
V.	CIVIL PENALTY	8
VI.	COMPLIANCE REQUIREMENTS	9
	Clean Air Act Requirements	9
	Resource Conservation and Recovery Act Requirements	23
VII.	APPROVAL OF DELIVERABLES	25
VIII.	PERMIT REQUIREMENTS	26
IX.	REPORTING REQUIREMENTS	28
X.	STIPULATED PENALTIES	30
XI.	FORCE MAJEURE	37
XII.	DISPUTE RESOLUTION	39
XIII.	INFORMATION COLLECTION AND RETENTION	42
XIV.	EFFECT OF THE SETTLEMENT RESERVATION OF RIGHTS	44
XV.	CERTIFICATION	46
XVI.	COSTS	47
XVII.	NOTICES	47
XVIII.	EFFECTIVE DATE	49
XIX.	RETENTION OF JURISDICTION	49

TABLE OF CONTENTS

Section	Page
XX. MODIFICATION	50
XXI. TERMINATION	50
XXII. PUBLIC PARTICIPATION	51
XXIII. SIGNATORIES/SERVICE	51
XXIV. APPENDICES	52
XXV. INTEGRATION	52
XXVI. FINAL JUDGMENT	53

LIST OF APPENDICES

Appendix A	Fume Collection System Study
Appendix B	Operations and Maintenance Plan
Appendix C	Electric Arc Furnace – Outdoor Fugitive Emissions Opacity Monitoring Protocol
Appendix D	List of Financial Information Submitted by Defendant for Ability to Pay Analysis
Appendix E	Diagram of RCRA Containment Structure

I. BACKGROUND

A. Plaintiff United States of America, acting on behalf of the United States Environmental Protection Agency ("EPA"), has filed a Complaint concurrently with this Consent Decree. The Complaint alleges that Defendant, Maynard Steel Casting Company ("Defendant" or "Maynard Steel"), violated Section 502 of the Clean Air Act ("CAA") (Title V permits), 42 U.S.C. § 7661a, and the federally approved and enforceable State Implementation Plan ("SIP") adopted by the State of Wisconsin and approved by EPA pursuant to Section 110 of the CAA, 42 U.S.C. § 7410;

B. The Complaint further alleges that Maynard Steel, as an owner and operator of its steel casting facility, violated various provisions of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act ("RCRA"), including Section 3004 (standards applicable to owners and operators of hazardous waste treatment, storage and disposal facilities), 42 U.S.C. § 6924; Section 3005(a) (permits for treatment, storage or disposal of hazardous waste), 42 U.S.C. § 6925(a); and the State of Wisconsin's hazardous waste program authorized by EPA pursuant to RCRA Section 3006, 42 U.S.C. § 6926;

C. On September 26, 2011, EPA issued a CAA Notice and Finding of Violation ("CAA NOV") to Defendant. EPA provided a copy of the CAA NOV to the State of Wisconsin as required by Section 113(a)(1) of the CAA, 42 U.S.C. § 7413(a)(1). On July 3, 2012, EPA issued a RCRA NOV to Defendant, and provided a copy of it to the State of Wisconsin as required by Section 3008(a) of the RCRA, 42 U.S.C. § 6928(a). The United States has provided notice of the commencement of this action to the State of Wisconsin as required by CAA Section 113(b), 42 U.S.C. § 7413(b), and RCRA Section 3008(a), 42 U.S.C. § 6928(a)(2);

D. In its Complaint, the United States alleges, among other things, that Defendant violated the CAA by operating four electric arc furnaces ("EAFs") at its steel foundry in Milwaukee, Wisconsin (the "Facility"), without installing and maintaining pollution control equipment adequate to control emissions of particulate matter within the limits of its federally-enforceable state permit, and as required by the CAA and applicable regulations, resulting in the release of particulate matter that exceeds permissible limits;

E. In its Complaint, the United States further alleges, among other things, that Defendant violated RCRA by: (1) failing to properly handle or dispose of dust containing high levels of chromium, a hazardous waste, produced by the EAFs at its Facility; (2) failing to determine whether the dust was a hazardous waste; and (3) sending the dust to landfills not authorized to accept hazardous waste;

F. The United States alleges claims upon which relief may be granted against Defendant under the CAA and RCRA;

G. In entering into this Consent Decree, Defendant does not admit any liability to the United States arising out of the transactions or occurrences alleged in the Complaint;

H. The United States has reviewed the Financial Information submitted by Defendant to determine whether Defendant is financially able to pay a civil penalty for the violations alleged in the Complaint. Based upon this Financial Information, the United States has determined that Defendant has limited financial ability to pay a civil penalty; and

I. The Parties recognize, and, by entering this Consent Decree, the Court finds that this Consent Decree has been negotiated by the Parties in good faith and will avoid litigation between the Parties and that this Consent Decree is fair, reasonable, and in the public interest.

NOW, THEREFORE, before the taking of any testimony, without the adjudication or admission of any issue of fact or law except as provided in Section II (Jurisdiction and Venue) below, and with the consent of the Parties, IT IS HEREBY ADJUDGED, ORDERED, AND DECREED as follows:

II. JURISDICTION AND VENUE

1. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331, 1345 and 1355; CAA § 113(b), 42 U.S.C. § 7413(b); and RCRA § 3008(a), 42 U.S.C. § 6928(a), and over the Parties. Venue is proper in this district pursuant to CAA § 113(b), 42 U.S.C. § 7413(b); RCRA § 3008(a), 42 U.S.C. §6928(a); and 28 U.S.C. §§ 1391(b) and (c), and 1395(a) because the violations alleged in the Complaint occurred and are occurring in this district, and because Defendant conducts business in this district. Solely for the purposes of this Consent Decree and the underlying Complaint, Defendant waives all objections and defenses that it may have to jurisdiction of this Court or to venue in this District. Defendant shall not challenge the entry of this Consent Decree, the terms of this Consent Decree, or this Court's jurisdiction to enter and enforce this Consent Decree.

2. Defendant agrees that the Complaint states claims upon which relief may be granted pursuant to CAA § 113(b) (CAA federal enforcement provision), 42 U.S.C. § 7413(b); CAA § 502 (Title V permit provision), 42 U.S.C. § 7661a; the federally approved and enforceable SIP adopted by the State of Wisconsin and approved by EPA pursuant to CAA § 110, 42 U.S.C. § 7410; RCRA § 3008 (RCRA federal enforcement provision), 42 U.SC. § 6928; RCRA § 3004 (standards applicable to owners and operators of hazardous waste treatment, storage, and disposal facilities), 42 U.S.C. § 6924; RCRA § 3005(a) (permits for treatment, storage or disposal of hazardous waste), 42 U.S.C. § 6925(a); RCRA § 3006 (authorized State

hazardous waste programs), 42 U.S.C. § 6926; and the State of Wisconsin's hazardous waste program authorized by EPA pursuant to RCRA Section 3006, 42 U.S.C. § 6926.

III. APPLICABILITY

3. The obligations of this Consent Decree apply to and are binding upon the United States and upon Defendant and any of its successors, assigns, or other entities or persons otherwise bound by law.

4. No transfer of ownership or operation of the Facility, whether in compliance with the procedures of this Paragraph or otherwise, shall relieve Defendant of its obligation to ensure that the terms of this Decree are implemented. At least thirty (30) Days prior to such transfer, Defendant shall provide a copy of this Decree to any proposed transferee and shall simultaneously provide written notice of the prospective transfer, together with a copy of the proposed written agreement, to EPA Region 5, the United States Attorney for the Eastern District of Wisconsin, and the United States Department of Justice, in accordance with Section XVII of this Decree (Notices). Any attempt to transfer ownership or operation of the Facility without complying with this Paragraph constitutes a violation of this Decree.

5. Defendant shall provide a copy of this Decree to all officers, directors, employees, and agents whose duties might reasonably include compliance with any provision of this Decree, as well as to any contractor retained to perform work required under this Consent Decree. Defendant shall condition any such contract upon performance of the work in conformity with the terms of this Consent Decree. Relative to Defendant personnel, this condition may be satisfied by posting, in a common area accessible to the personnel noted above, a copy of this Decree or a notice with instructions as to where a copy of this Decree can be obtained for review; and either electronic posting on a Defendant intranet site or distribution to such personnel via e-

mail. Relative to the contractors noted above, this condition may be satisfied by e-mailing a copy of this Decree to the contractor and obtaining an email confirming receipt from the contractor. This condition will terminate concurrent with the time frame established under Section XXI of this Decree.

6. In any action to enforce this Decree, Defendant shall not raise as a defense the failure by any of its officers, directors, employees, agents or contractors to take any actions necessary to comply with the provisions of this Decree.

IV. DEFINITIONS

7. Terms used in this Consent Decree that are defined in the CAA or RCRA, or in regulations promulgated pursuant to the CAA or authorized by RCRA, shall have the meaning assigned to them in the CAA, RCRA, or such regulations, unless otherwise provided in this Decree. Whenever the terms set forth below are used in this Consent Decree, the following definitions shall apply:

a. "Complaint" means the complaint filed by the United States in this action;

b. "Consent Decree" or "Decree" means this Decree and all appendices attached hereto, which are listed in Section XXVIII (Appendices);

c. "Day" means a calendar day unless expressly stated to be a business day. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next business day;

d. "Defendant" means Maynard Steel Casting Company;

e. "Delta Section" means the area where the three EAF electrodes penetrate a furnace cover, and in the case of EAF No. 4, also includes the fume collection system hood, which is the primary inlet to the fume collection system for EAF No. 4.

f. "EAF No. 4" means the EAF placed in service in 1945 and located in the Green Sand Foundry at the Facility;

g. "EAF No. 5" means the EAF placed in service in 1956 and located in the Green Sand Foundry at the Facility;

h. "EAF No. 6" means the EAF placed in service in 1962 and located in the Green Sand Foundry at the Facility;

i. "EAF No. 7" means the EAF placed in service in 1978 and located in the No Bake East End of the Facility;

j. "EPA" means the United States Environmental Protection Agency and any of its successor departments or agencies;

k. "Effective Date" has the definition provided in Section XXII (Effective Date);

l. "Facility" means Defendant's steel processing foundry located at 2856 South 27th Street, Milwaukee, Wisconsin;

m. "Financial Information" means the third-party audited financial statements, corporate tax returns, and other finance related documents that Defendant provided to the United States in support of the assessment of Defendant's limited ability to pay a civil penalty, which are listed in Appendix D of this Decree;

n. "Fume Collection System" or "FCS" means the exhaust ventilation control and capture system for each EAF. For EAF Nos. 5, 6 and 7, the FCS is comprised of a side-draft hood; a telescoping duct that allows the side-draft hood to remain engaged when the EAF tilts; ductwork to a baghouse; a baghouse; fan; and an exhaust stack. For EAF No. 4, the FCS is currently comprised of a furnace cover exhaust hood (with its primary inlet at the Delta Section); ductwork from the furnace cover exhaust hood to a baghouse (without telescoping capability to remain engaged when the EAF is tilted); a baghouse; fan; and an exhaust stack. Additionally, EAF No. 4 has a building roof canopy hood that is intended to capture emissions when the furnace is tilted, which emissions are then ducted to EAF No. 4's baghouse.

o. "Melt Rate" means the rate at which metal charged to an EAF is turned from a solid to a liquid or molten state. Melt Rate shall be determined from the time an EAF is powered on and melting begins until removal of the electrodes and power off, and includes the refining, slagging and alloying processes associated with an EAF, but does not include time associated with equipment breakdown, delays requiring removal of the electrodes, and/or power off, so long as melting (i.e., active conversion of solid scrap metal to molten metal) does not continue.

p. "PM" means total particulate matter, including PM10 (meaning particulate matter smaller than 10 microns diameter) and PM2.5 (meaning particulate matter smaller than 2.5 microns diameter);

q. "Paragraph" means a portion of this Decree identified by an Arabic numeral.

r. "Parties" means the United States and the Defendant;

s. "Section" means a portion of this Decree identified by a Roman numeral;

t. "State" means the State of Wisconsin; and

u. "United States" means the United States of America, acting on behalf of EPA.

V. CIVIL PENALTY

8. Within thirty (30) Days after the Effective Date of this Consent Decree, Defendant shall pay the first of five (5) consecutive monthly sums of $5,000 each, as a civil penalty, together with interest accruing from the date on which this Consent Decree is lodged with the Court, at the rate specified in 28 U.S.C. § 1961 as of the date of lodging. Each subsequent monthly payment shall be submitted on or before the 15th day of the calendar month. This civil penalty has been determined based on an evaluation of the Financial Information provided by Defendant to the United States, concluding that Defendant has a limited ability to pay a civil penalty.

9. Defendant shall pay the civil penalty due by FedWire Electronic Funds Transfer ("EFT") to the U.S. Department of Justice in accordance with written instructions to be provided to Defendant, following lodging of this Decree, by the Financial Litigation Unit of the United States Attorney's Office for the Eastern District of Wisconsin, 517 E. Wisconsin Ave., Room 530, Milwaukee, Wisconsin, phone number: 414-297-1700. At the time of payment, Defendant shall send a copy of the EFT authorization form and the EFT transaction record, together with a transmittal letter that shall state that the payment is for the civil penalty owed pursuant to this Consent Decree in United States v. Maynard Steel Casting Company and reference the civil action number and DOJ case number 90-5-2-1-10613, to the United States in accordance with

Section XVII of this Decree (Notices); by email to acctsreceivable.CINWD@epa.gov; and by mail to:

EPA Cincinnati Finance Office
26 Martin Luther King Dr.
Cincinnati, Ohio 45268

10. Defendant shall not deduct any penalties paid under this Decree pursuant to this Section or Section X (Stipulated Penalties) in calculating its federal income tax.

VI. COMPLIANCE REQUIREMENTS

Clean Air Act Requirements

11. Defendant currently operates EAF Nos. 5, 6 and 7 at the Facility. As of the date of lodging of this Decree, EAF No. 4 is not operational. Prior to operating EAF No. 4, Defendant shall first inspect and repair as necessary the Delta Section of the associated FCS, and provide written notification to EPA of the results of the inspection and all repairs performed, pursuant to Section XVII (Notices). Once EAF No. 4 is operating, Defendant shall not conduct more than 12 heats in a rolling 12-month period. If Defendant elects to exceed this limit at EAF No. 4, then within one year of exceeding this limit, Defendant shall:

a. install telescoping ductwork to continuously capture emissions at the Delta Section on EAF No. 4 or replace the current local hood with a side-draft hood and telescoping duct to continuously capture emissions at the annular spaces between the electrodes and the furnace cover on EAF No. 4;

b. complete the Fume Collection System Study at EAF No. 4 as described in Paragraphs 28 through 31 of this Decree;

c. implement the compliance provisions in Paragraph 18 (installation of bag leak detection system), Paragraphs 26 and 27 (bag leak detection system monitoring plan), and Paragraph 69 (Permit Requirements Applicable to EAF No. 4) of this Decree; and

d. provide written notification to EPA, consistent with Section XVII (Notices), at least thirty (30) days prior to using EAF No. 4 to conduct more than 12-heats in a rolling 12-month period.

During this one year period, Defendant shall not conduct more than 24 total heats at EAF No. 4 starting from the date on which the 13th heat in the previous 12-month period is conducted.

12. Corrective Actions Completed Since EPA Issued the CAA NOV. As of the date of lodging of this Decree, Defendant has performed certain actions to address the violations alleged in the Complaint, including, but not limited to: (a) repairing and overhauling the EAF baghouses on EAF Nos. 4, 5, 6 and 7; (b) replacing damaged telescoping ductwork on EAF No. 5; (c) replacing the existing enclosing hood with a side-draft hood and telescoping duct on EAF No. 6; (d) rebuilding the slag door on EAF No. 6; (e) installing a telescoping duct on EAF No. 7; and (f) renovating the building roof canopy hood collection system currently in place at EAF No. 4.

13. Capture of EAF Emissions.

a. Defendant shall ensure, to the extent practicable, that the capture efficiency of each of its FCSs is sufficient to reduce or eliminate visible particulate matter ("PM") from the hood-furnace interface, the slag door and the annular spaces around the electrodes.

b. As set forth in Paragraph 7(n) above, the FCS for EAF No. 4 currently differs from that which is employed on EAF Nos. 5, 6 and 7. While EAF No. 4 is operating,

Defendant shall utilize the FCS beginning at the Delta Section as its primary means of capturing emissions from the furnace. Whenever the Delta Section is disconnected while EAF No. 4 is operating, and until such time as the modifications required by Paragraph 11(a) are implemented, Defendant shall, to the extent practicable and as described in the Operation and Maintenance Plan ("O&M Plan") (Appendix B), operate the building roof canopy hood currently in place for EAF No. 4.

14. Defendant shall ensure each FCS as defined under Paragraph 7(n) and as modified at EAF No. 4 under Paragraph 11(a), including related monitoring equipment, is maintained and continually operating while the associated EAF is operating. All leaks discovered in any FCS, shall be promptly repaired in accordance with the Defendant's O&M Plan (Appendix B).

15. Emission Limits for Defendant's Electric Arc Furnaces. When an EAF is operating, Defendant shall capture PM from that EAF and direct such PM to the EAF's associated baghouse. Unless modified by a future Title V Permit or CAA construction permit, emissions from the outlet stack for the EAF baghouse shall not exceed the following levels, as determined by the methodology specified in Paragraphs 33 and 34 below:

a. 1.90 pounds of PM per hour from the stack associated with EAF No. 4;

b. 1.75 pounds of PM per hour from the stack associated with EAF No. 5;

c. 2.38 pounds of PM per hour from the stack associated with EAF No. 6; and

d. 4.39 pounds of PM per hour from the stack associated with EAF No. 7.

16. Opacity of Emissions from the Facility. Defendant shall not emit any un-captured PM (PM from an EAF not directly vented to its FCS) to the atmosphere from charging, melting, refining or tapping phases and/or PM from pouring operations that exhibit an average opacity

greater than 20 percent for any six minute period as determined using EPA Alternate Method 082 (77 Fed. Reg. 8865, February 15, 2012), or as calculated using EPA Method 9, 40 C.F.R. Pt. 60, Appendix A-4, or in accordance with the Electric Arc Furnace – Outdoor Fugitive Emissions Opacity Monitoring Protocol contained in Appendix C of this Decree.

17. Installation and Operation of Continuous Parametric Monitoring System. Within six (6) months of the Effective Date of this Decree, Defendant shall install, on each of EAF Nos. 5, 6 and 7, a continuous parametric monitoring system ("CPMS") to measure (a) pressure drop across each associated baghouse, and (b) hood static pressure. Within one-hundred eighty (180) days of resuming operations at EAF No. 4, Defendant shall install a CPMS. Defendant shall operate the CPMS at all times that its associated EAF is operating, except as otherwise provided in the O&M Plan.

18. Installation and Operation of Bag Leak Detection System. Within one (1) year of the Effective Date of this Decree, Defendant shall install, commission and calibrate a bag leak detection system with light scattering technology ("BLDS") located at the outlet of each baghouse associated with EAF Nos. 6 and 7. Within five (5) years of the Effective Date of this Decree, Defendant shall install, commission and calibrate a BLDS located at the outlet of the baghouse associated with EAF No. 5, and also with EAF No. 4, if EAF No. 4 is not permanently removed from service within five (5) years of the Effective Date of this Decree.

19. Within ninety (90) days of the Effective Date of this Decree, Defendant shall submit to EPA bid specifications for a scope of work to install a BLDS located at the outlet of each baghouse associated with EAF Nos. 6 and 7.

20. No later than one (1) year of the Effective Date of this Decree, or as otherwise approved in writing by EPA, Defendant shall complete installation of each BLDS associated with EAF Nos. 6 and 7.

21. Within four (4) years of the Effective Date of this Decree, Defendant shall submit to EPA bid specifications for a scope of work to install a BLDS located at the outlet of the baghouse associated with EAF No. 5, and also with EAF No. 4, if EAF No. 4 is not permanently removed from service within five (5) years of the Effective Date of this Decree.

22. No later than five (5) years from the Effective Date of this Decree, or as otherwise approved in writing by EPA, Defendant shall complete installation of the BLDS associated with EAF No. 5, and also with EAF No. 4, if EAF No. 4 is not permanently removed from service within five (5) years of the Effective Date of this Decree.

23. Defendant shall operate the BLDS at all times that its associated EAF is operating.

24. Within ninety (90) days of the Effective Date of this Decree, and consistent with Defendant's O&M Plan (Appendix B), Defendant shall conduct daily clean-side inspections of every operating EAF baghouse, and shall document observations of these inspections. Defendant shall properly repair and perform necessary maintenance noted as a result of each clean side inspection. Clean side inspections shall continue for each EAF until a dedicated BLDS system is installed on each operating EAF.

25. The installation and operation of each BLDS at the Facility shall comply with the requirements in 40 C.F.R. §§ 63.7710(b)(4) and (5), 63.7736(c), 63.7740(b), 63.7741(b) and 63.7743(c)(2).

26. BLDS Monitoring Plan. Defendant shall develop and maintain at the Facility a BLDS Monitoring Plan, the scope of which shall include each BLDS then-installed at the Facility. Within ninety (90) days of completing installation, commissioning and calibration of the BLDS, Defendant shall submit the BLDS Monitoring Plan to EPA for review and approval pursuant to Section VII (Approval of Deliverables) of this Decree. The approved BLDS Monitoring Plan shall be incorporated into the facility's O&M Plan (Appendix B) as required in Paragraphs 54 and 55 of this Decree.

27. Upon EPA's approval of the BLDS Monitoring Plan, Defendant shall operate and maintain each BLDS according to the approved BLDS Monitoring Plan.

28. Electric Arc Furnace Fume Collection System Study. Defendant shall complete testing pursuant to the EAF Fume Collection System Study ("FCS Study") to demonstrate that emissions capture performance for each EAF in operation can be maintained at all times during a heat, at or above an established capture hood static pressure that represents the minimum draw necessary to effectively capture visible PM from that EAF. The FCS Study is attached as Appendix A to this Decree and is divided into two primary components, the Cold Work and the Hot Work.

29. Defendant shall provide EPA written notice at least thirty (30) days prior to each performance monitoring date undertaken as part of the FCS Study, subject to a seven (7) day status and confirmation of the performance monitoring date, so that EPA may observe the performance monitoring, consistent with Section XIII (Information Collection and Retention) of this Decree.

30. Within ten (10) months of the Effective Date of this Decree, or such later date as is approved in writing by EPA based on practical or safety concerns related to seasonal or other

constraints, Defendant shall complete the Cold Work portion (Phase 2A) of the FCS Study for EAF Nos. 5, 6 and 7, and shall submit a written report of Cold Work Findings to EPA for review and approval as provided by Section VII (Approval of Deliverables) and in a manner consistent with Section XVII (Notices) of this Decree.

31. Within one-hundred twenty (120) days of EPA's approval of the Cold Work Findings report described in Paragraph 30, or such later date as is approved in writing by EPA based on the operating status of each EAF, practical, or safety concerns related to seasonal or other constraints, Defendant shall complete Phases 2B and 3 of the FCS Study in accordance with the requirements of Appendix A (FCS Study). Within sixty (60) days of completing Phase 3 of the FCS Study (Appendix A), Defendant shall submit the Final FCS Report, consistent with the reporting requirements identified in the FCS Study, to EPA for review and approval as provided by Section VII (Approval of Deliverables) and consistent with Section XVII (Notices) of this Decree.

32. Initial Performance Tests at the EAF Baghouse Stacks. At the stack associated with each EAF, Defendant shall conduct performance tests to demonstrate compliance with the emission limits in Paragraph 15 above.

33. Within sixty (60) days of its submission of the Final FCS Report, Defendant shall submit to EPA for review and approval a Performance Test Protocol for each operational EAF, pursuant to Section VII (Approval of Deliverables) and in a manner consistent with Section XVII (Notices) of this Decree. The Performance Test Protocol shall specify three (3) performance stack test runs for particulate matter of at least one-hour each using EPA Methods 5 (40 C.F.R. Part 60, App. A-3) and 202 (40 C.F.R. Part 51, Appendix M), unless an alternative or equivalent method is approved, in writing, by the EPA; identify planned production levels; and identify the

name and qualifications of the person conducting the performance test. Defendant shall simultaneously provide the Performance Test Protocol to the Bureau of Air Management, Wisconsin Department of Natural Resources (WDNR) as provided in Section XVII (Notices).

34. Defendant shall conduct each performance test required by this Decree with a minimum average melt rate (in terms of tons of metal per hour) as follows:

a. EAF No. 4: 3.4 tons/hr.

b. EAF No. 5: 3.05 tons/hr.

c. EAF No. 6: 4.6 tons/hr.

d. EAF No. 7: 9.0 tons/hr.

35. Within sixty (60) days following EPA's approval of the Performance Test Protocol, Defendant shall conduct the initial performance test at each EAF included in the Performance Test Protocol.

36. Defendant shall provide EPA and WDNR with written notice, consistent with Section XVII (Notices), at least ten (10) business days prior to the earliest scheduled date for a performance test.

37. Within sixty (60) days of completing the initial performance test for an EAF, Defendant shall submit to EPA and WDNR, consistent with Section XVII (Notices), a report of the performance test results. The report shall describe all steps taken to comply with the Performance Test Protocol, the conditions under which each performance test was carried out, the parameters that were tested, and all results of the performance test(s). The report shall include the EAF melting rates, all supporting heat sheets, and the EAF hood static pressure measurements and baghouse total differential pressure drops at which Defendant operated the EAF and its associated FCS during each performance test. If an initial performance test

demonstrates compliance with the emission limits set forth in Paragraph 15 above, Defendant shall conduct additional stack performance tests as set forth in Paragraphs 40 through 44 below.

38. If an initial performance test fails to demonstrate compliance with the emission limit for that EAF set forth in Paragraph 15, Defendant shall, within thirty (30) days of submitting the written report to EPA and WDNR: (a) determine and correct the cause of the failure and conduct a re-test in accordance with the procedures and requirements set forth in the Performance Test Protocol; and (b) submit to EPA and WDNR, consistent with Section XVII (Notices), a report of the performance test results. If a performance re-test demonstrates compliance with the emission limit for that EAF set forth in Paragraph 15 above, Defendant shall conduct additional stack performance tests as set forth in Paragraphs 40 through 44 below.

39. If a performance re-test fails to demonstrate compliance with the EAF's applicable emission limit set forth in Paragraph 15, then within thirty (30) days of failing the stack performance re-test, Defendant shall submit for review and approval as provided by Section VII (Approval of Deliverables), and consistent with Section XVII (Notices), a plan to achieve continuous compliance with the PM emissions limitation for that EAF. Such plan shall describe any proposed operational restrictions and/or upgrades to the FCS associated with that EAF; and shall include a schedule for achieving continuous compliance with the emission limit for that EAF set forth in Paragraph 15 above and a schedule for conducting a re-test in accordance with the procedures and requirements set forth in the Performance Test Protocol. Within thirty (30) Days of receipt of EPA's approval of this plan, Defendant shall implement the approved plan consistent with the schedules therein.

40. <u>Subsequent Periodic Performance Tests at the Electric Arc Furnace Baghouse Stacks</u>. Subsequent periodic performance tests shall be conducted within four (4) years of the

Effective date of this Decree, and every five (5) years thereafter pursuant to Defendant's permit, as amended pursuant to Paragraph 67 (EAF Nos. 5, 6 and 7) or 69 (EAF No. 4) of this Decree. Each subsequent performance test shall be conducted in accordance with a Performance Test Protocol submitted in accordance with Paragraph 33 above and submitted to EPA and WDNR ninety (90) days prior to the proposed performance test pursuant to Section VII (Approval of Deliverables) and consistent with Section XVII (Notices) of this Decree.

41. Within sixty (60) days of completing each subsequent periodic performance test described in Paragraph 40, Defendant shall submit to EPA and WDNR, consistent with Section XVII (Notices), a report of the performance test results that includes the components set forth in Paragraph 37 above.

42. If any subsequent periodic performance test fails to demonstrate compliance with the applicable emissions limit for that EAF set forth in Paragraph 15, Defendant shall, within thirty (30) days of issuance of the performance test report, determine and correct the cause of the failure, and then conduct a re-test in accordance with the procedures, schedule and requirements set forth in the Periodic Performance Test Protocol.

43. If any subsequent periodic performance re-test fails to demonstrate compliance with the emissions limit for that EAF set forth in Paragraph 15, then within thirty (30) days after the failed re-test, Defendant shall submit to EPA for review and approval a plan to achieve continuous compliance with the emissions limit for that EAF. Such plan shall include the components set forth in Paragraph 39 above. Within thirty (30) Days of receipt of EPA's approval of the plan, Defendant shall implement the approved plan consistent with the schedule therein.

44. Opacity Observations During Stack Performance Tests. During each stack performance test performed under this Decree, Defendant shall simultaneously conduct visible opacity observations as specified in Paragraph 46 below.

45. Outdoor Opacity Observations. Within six (6) months of the Effective Date of this Consent Decree, or such later date as is approved in writing by EPA based on practical or safety concerns related to seasonal or other constraints, including unforeseen equipment difficulties (*e.g.*, hardware/software breakdown, challenges with processing of captured images, etc.), Defendant shall commence conducting visual opacity observations to demonstrate compliance with the outdoor opacity limit in Paragraph 16, above. Outdoor opacity observations shall be conducted for fifteen (15) heats completed over the course of six (6) consecutive months at each of EAF Nos. 6 and 7, and twelve (12) consecutive months at EAF No. 5. Within six (6) months of bringing EAF No. 4 into operation, or such later date as is approved in writing by EPA based on practical or safety concerns related to seasonal or other constraints, including unforeseen equipment difficulties that prohibit obtaining a valid opacity observation (*e.g.*, hardware/software breakdown, challenges with processing of captured images, etc.), Defendant shall commence conducting visual opacity observations for fifteen (15) heats to be completed over the course of twenty-four (24) consecutive months at EAF No. 4 to demonstrate compliance with the opacity limit in Paragraph 16, above. Thereafter, until termination of this Decree, the Defendant shall conduct one (1) opacity observation every six (6) months at each then-operating EAF.

46. All opacity observations shall be based on the methodology provided in Appendix C of this Decree, the EAF – Outdoor Fugitive Emissions Opacity Monitoring Protocol. As provided for in Appendix C of this Decree, Defendant shall obtain, install and operate at least

two remotely monitored cameras certified for opacity readings under EPA Alternate Method 082 that shall be used to record opacity from specified locations at the Facility. Each opacity observation conducted pursuant to this Decree shall be conducted at one or more of the locations specified in Appendix C for a minimum of six (6) consecutive minutes to include the entire tapping and refining phases of the heat, regardless of the length of each phase.

47. All opacity observations conducted pursuant to this Decree shall be conducted on consecutive heats, unless weather conditions are such that background lighting is insufficient to obtain an accurate observation, or other unforeseen equipment difficulties prohibit obtaining a valid opacity observation (*e.g.*, hardware/software breakdown, challenges with processing of captured images, etc.). Defendant shall document such qualifying weather and/or equipment conditions and provide this documentation within ten (10) Days of EPA's request. All successfully completed opacity observations shall be counted toward the minimum required total number of observations specified in Paragraph 45, even if the opacity observation was conducted during non-consecutive heats.

48. Nighttime Opacity Observations. When opacity observations are conducted at night (from sunset to sunrise), the Defendant shall use a certified camera (EPA Alternate Method 082) to conduct visual opacity observations for each nighttime heat to be observed, according to the requirements in Paragraphs 47. As a contingency in the event that a certified camera (EPA Alternate Method 082) is not functioning properly (*e.g.*, due to related hardware and/or software issues, backlighting issues and/or other unforeseen factors), an observer certified by the California Air Resources Board ("CARB") to conduct nighttime opacity observations may conduct the visual opacity observations. Within ninety (90) days of the Effective Date of this Consent Decree, Defendant shall provide EPA for review and approval site-specific lighting

plans for: (1) conducting nighttime opacity observations with a certified observer; and (2) conducting nighttime opacity readings using a certified camera.

49. Daytime Opacity Observations. When melting operations are conducted during daylight (after sunrise and prior to sunset), Defendant shall use a certified camera (EPA Alternate Method 082) to conduct visual opacity observations for each heat to be observed. Alternatively, in accordance with the protocol provided in Appendix C, a certified Method 9 observer may conduct the visual opacity observations consistent with Method 9.

50. Consequence for Opacity Exceedance. In the event of an opacity exceedance, Defendant shall determine and correct the cause of the exceedance in accordance with the O&M Plan (Appendix B of this Decree).

51. Air Quality Modeling. After completing the performance tests required for EAF Nos. 5, 6 and 7 under Paragraph 32, Defendant shall perform dispersion modeling of Defendant's PM10 emissions from the Facility using the AERMOD modeling system. AERMOD modeling shall be performed using the maximum emissions generating scenario for the Facility and the most recent performance test data for each EAF as obtained pursuant to this Decree.

52. Within thirty (30) days of completing the performance tests required under Paragraph 32, and prior to performing the AERMOD modeling required by Paragraph 51, Defendant shall submit a AERMOD Modeling Protocol ("Modeling Protocol") to EPA for review and approval pursuant to Section VII (Approval of Deliverables) and consistent with Section XVII (Notices) of this Decree. Defendant shall simultaneously submit the Modeling Protocol to Air Pollution Control, WDNR consistent with Section XVII (Notices). The Modeling Protocol shall describe in detail the proposed modeling methods and procedures, the

source types and release parameters, maximum emission rate calculations, associated methodology, and the schedule for conducting the modeling.

53. Defendant shall perform the dispersion modeling in accordance with the approved Protocol and approved schedule therein. Within thirty (30) days after the completion of the AERMOD modeling, Defendant shall submit a complete report of the results to EPA for review and approval pursuant to Section VII (Approval of Deliverables) and consistent with Section XVII (Notices) of this Decree.

54. Facility Operations and Maintenance Plan ("O&M Plan"). Concurrent with submittal of the Final FCS Report described in Paragraph 31, Defendant shall amend the O&M Plan as necessary and in accordance with 40 C.F.R. § 63.7710(b). Defendant shall submit the Final FCS Report, together with the O&M Plan, to EPA for review and approval pursuant to Section VII (Approval of Deliverables) of this Decree. Defendant shall submit any proposed changes to the O&M Plan to EPA for review and approval in accordance with Section VII (Approval of Deliverables) for the duration of this Decree.

55. Upon EPA's approval of the O&M Plan, Defendant shall, at all times, operate each FCS associated with EAF Nos. 5, 6 and 7 at its Facility in accordance with the O&M Plan. The FCS associated with EAF No. 4 shall also be operated in accordance with the O&M Plan if EAF No. 4 resumes operating.

56. Startup, Shutdown and Malfunction Plan. Defendant's Startup, Shutdown and Malfunction ("SSM Plan") is included as Appendix B to this Decree. Until the now-current SSM Plan is revised, Defendant shall operate its Facility at all times in accordance with this SSM Plan.

57. Concurrent with Defendant's submission of the Final FCS Report, Defendant shall revise as necessary the SSM Plan, in accordance with 40 C.F.R. § 63.6(e)(3), and submit the revised SSM Plan to EPA for review and approval pursuant to Section VII (Approval of Deliverables) and consistent with Section XVII (Notices) of this Decree. The revised SSM Plan shall be incorporated into Defendant's O&M Plan described in Paragraph 54 of this Decree upon EPA's approval of the revised SSM Plan. Defendant shall submit any changes to the SSM Plan to EPA for review and approval pursuant to Section VII (Approval of Deliverables) and consistent with Section XVII (Notices) for the duration of this Decree. If EPA does not respond to Defendant with comments or approval within forty-five (45) days, Defendant shall operate its Facility at all times in accordance with the most recent revised SSM Plan that was submitted to EPA.

Resource Conservation and Recovery Act

58. Defendant shall at all times comply with federal and state laws and regulations governing generation, treatment, storage, and disposal of hazardous wastes, including the land disposal of hazardous waste. Defendant shall comply with RCRA §§ 3002, 3004 and 3005, 42 U.S.C. §§ 6922, 6924 and 6925; and Wisconsin Administrative Code ("WAC") NR 662, 665, 668 and 670, 40 C.F.R. Parts 262, 265, 268 and 270.

59. Corrective Actions Completed Since EPA Issued the RCRA NOV. On November 12, 2013, Defendant submitted to WDNR a closure plan for five hazardous waste storage areas associated with EAF baghouse dust at the Facility ("Closure Plan"). The Closure Plan was prepared to meet the closure requirements of Wisconsin's authorized RCRA program at WAC NR 665, Subpart G, and 40 C.F.R. Part 265, Subpart G. WDNR gave preliminary approval to the Closure Plan, and Defendant subsequently submitted a closure report to WDNR documenting

the actions taken to complete closure of the EAF dust storage areas. The closure report stated that decontamination of the five hazardous waste storage areas was completed on November 26, 2013. On February 14, 2014, WDNR notified Defendant that it considers Defendant to have completed all actions concerning the EAF dust storage areas as required by the WDNR RCRA closure requirements.

60. Other Corrective Action Completed Since October 2009 When Analytical Results Showed that EAF Dust Is a Hazardous Waste. On July 30, 2012, Defendant submitted to EPA a letter addressing the violations alleged by EPA in its July 3, 2012 RCRA NOV. The letter describes the actions the Defendant has taken to comply with the standards applicable to generators of hazardous waste at WAC NR Part 662 (40 C.F.R. Part 262). Among other things, Defendant has performed the following actions: (a) conducted initial RCRA training for its employees; (b) prepared a hazardous waste contingency plan and distributed it to appropriate local authorities; (c) maintained and operated the Facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste; (d) accumulated the EAF dust in containers that satisfy the requirements of WAC NR 662.034(1)(a)(1) and Subpart I of WAC NR 665; (e) shipped and manifested EAF dust off-site within ninety (90) days of being generated; (f) provided a one-time notification to each treatment or storage facility receiving EAF dust originating from the Facility; and (g) implemented a policy to routinely re-analyze the Facility's EAF dust every two years, or sooner.

61. Containment of EAF Dust. The Defendant has completed construction of a steel containment structure to surround each of the supersacks that capture dust from the four (4) EAF baghouses at the Facility. The supersacks are connected to and located beneath the dust

collectors associated with EAF Nos. 4, 5, 6 and 7. Defendant shall at all times use and maintain each containment structure. A diagram of the containment structure is attached in Appendix E.

VII. APPROVAL OF DELIVERABLES

62. After review of any plan, report or other item that is required to be submitted pursuant to this Decree, EPA shall in writing: (a) approve the submission; (b) approve the submission upon specified conditions; (c) approve part of the submission and disapprove the remainder; or (d) disapprove the submission.

63. If the submission is approved pursuant to Section VII (Approval of Deliverables), Defendant shall take all actions required by the plan, report or other document, in accordance with the schedules and requirements of the plan, report or other document, as approved. If the submission is conditionally approved or approved only in part, pursuant to Section VII (Approval of Deliverables), Defendant shall, upon written direction from EPA, take all actions required by the approved plan, report or other item that EPA determines are technically severable from any disapproved portions, subject to Defendant's right to dispute only the specified conditions or the disapproved portions under Section XV of this Decree (Dispute Resolution).

64. If the submission is disapproved in whole or in part pursuant to Section VII (Approval of Deliverables), Defendant shall, within thirty (30) Days or such other time as the Parties agree to in writing, correct all deficiencies and resubmit the plan, report or other item, or disapproved portion thereof, for approval by EPA. If the resubmission is approved in whole or in part, Defendant shall proceed in accordance with the preceding Paragraph.

65. Any stipulated penalties applicable to the original submission, as provided in Section X (Stipulated Penalties) of this Decree, shall accrue during the 30 Day period or other specified period, but shall not be payable unless the resubmission is untimely or is disapproved

in whole or in part; provided that, if the original submission was so deficient as to constitute a material breach of Defendant's obligations under this Decree, the stipulated penalties applicable to the original submission shall be due and payable notwithstanding any subsequent resubmission. Any approval of a report by EPA before the Effective Date is effective and binding under this Decree upon entry.

66. If a resubmitted plan, report or other item, or portion thereof, is disapproved in whole or in part, EPA may again require Defendant to correct any deficiencies in accordance with the preceding Paragraphs in this Section, or may itself correct any deficiencies, subject to Defendant's right to invoke Dispute Resolution and the right of EPA to seek stipulated penalties as provided in the preceding Paragraphs in this Section.

VIII. PERMIT REQUIREMENTS

67. Within one-hundred twenty (120) days of the first compliant performance test at EAF Nos. 5, 6 and 7, Defendant shall submit to WDNR an application to incorporate into an applicable federally-enforceable minor or major construction permit, or other permit that will ensure that the following requirements apply to the Facility and survive the termination of this Consent Decree under Section XXV (Termination):

a. the operating limits for EAF No. 4 set forth in Paragraphs 11 and 13;

b. the emission limit for each EAF described in Paragraph 15;

c. the opacity limit described in Paragraph 16;

d. the CPMS operating requirements described in Paragraph 17;

e. the BLDS operating and monitoring requirements described in Paragraphs 23, 25 and 27;

f. the minimum melt rates for performance testing in Paragraph 34;

g. performance testing at each operating EAF once every five (5) years, beginning five (5) years from the date of the last performance test conducted under this Decree;

h. the approved opacity monitoring procedure described in Paragraph 46 and the requirement to conduct one (1) opacity observation every six (6) months at each then-operating EAF; and,

i. the O&M plan approved by EPA in Paragraph 55.

68. Following submission of the complete permit application, Defendant shall promptly submit to WDNR all available information that WDNR seeks following its receipt of the permit application. Promptly upon issuance of such permit or in conjunction with issuance of the permit, Defendant shall file any applications necessary to incorporate the requirements of those permits into any Title V Permit that may be required to operate the Facility.

69. Additional Permit Requirements Related to EAF No. 4.

a. Notwithstanding any required notice of startup of EAF No. 4 in Paragraph 11, Defendant shall obtain all applicable permits prior to operating EAF No. 4.

b. If at any time during the term of this Decree Defendant elects to permanently retire EAF No. 4, then Defendant shall amend its federally-enforceable minor or major construction permit and Title V operating permit to remove EAF No. 4 and shall no longer operate EAF No. 4.

c. If at any time during the term of this Decree Defendant elects to operate EAF No. 4 in a manner that exceeds the maximum operating constraints identified in Paragraph 11, then prior to such operation, Defendant shall upgrade the now-existing FCS as described in Paragraph 11, install a BLDS as provided in Paragraph 18, and amend its federally-enforceable minor or major construction permit and Title V operating permit to reflect these conditions.

d. If Defendant elects to maintain the operating constraints provided for EAF No. 4 in Paragraph 11 when it requests termination of this Decree, then Defendant shall apply to amend its permit to permanently establish these operational constraints.

70. Defendant shall submit a copy of any application for any air permit or air permit amendment required by this Decree (or any related correspondence) to EPA consistent with Section XVII (Notices) simultaneous with the application or correspondence submitted to WDNR. Within fifteen (15) Days of receipt of any draft or final air permit, Defendant shall provide a copy of the same to EPA consistent with Section XVII (Notices).

71. Defendant shall submit a copy of this Decree to WDNR with any applications for permits or permit amendments required by this Decree.

72. Where any compliance obligation under this Section requires Defendant to obtain a federal, state or local permit or approval, Defendant shall submit timely and complete applications and take all other actions necessary to obtain all such permits or approvals. Defendant may seek relief under the provisions of Section XIV of this Consent Decree (Force Majeure) for any delay in the performance of any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation, if Defendant has submitted timely and complete applications and has taken all other actions necessary to obtain all such permits or approvals.

IX. REPORTING REQUIREMENTS

73. Beginning six (6) months after the Effective Date of this Decree, and every six (6) months thereafter until termination of this Decree pursuant to Section XXV (Termination), Defendant shall submit to EPA a Semi-Annual Status Report describing the status of any construction or compliance measures required by this Decree. The Semi-Annual Status Report

shall include a description of any non-compliance with the requirements of this Decree and an explanation of the likely cause of the violation and of the remedial steps taken, or to be taken, to correct, prevent or minimize the future probability or adverse effects of such violation.

74. If Defendant violates, or has reason to believe that it may violate, any requirement of this Consent Decree, Defendant shall submit a Report of Non-Compliance and notify the United States of such violation and its likely duration, in writing, within fourteen (14) Days of the Day that Defendant first becomes aware of the violation or potential violation, with an explanation of the likely cause of the violation and of the remedial steps taken, or to be taken, to correct, prevent or minimize the future probability or adverse effects of such violation. If the cause of a violation cannot be fully explained at the time the report is due, Defendant shall so state in the Report. Defendant shall investigate the cause of the violation and shall then submit an amendment to the report, including a full explanation of the cause of the violation, within thirty (30) Days of the Day Defendant becomes aware of the cause of the violation. Nothing in this Paragraph or the following Paragraph relieves Defendant of its obligation to provide the notice required by Section XIV of this Decree (Force Majeure) if Defendant elects to invoke Force Majeure.

75. Whenever any violation of this Decree, or of any applicable permits, or any other event affecting Defendant's performance under this Decree, or the performance of its Facility, may pose an immediate threat to the public health or welfare or the environment, Defendant shall notify EPA via telephone or email as soon as possible, but no later than twenty-four (24) hours after Defendant first became aware of the violation or event. This procedure is in addition to the written reporting requirements set forth in the preceding Paragraph.

76. All reports submitted pursuant to the preceding three Paragraphs shall be submitted to the persons designated in Section XVII (Notices) of this Decree. Each report submitted by Defendant under this Section shall be signed by an official of the submitting party and include the following certification:

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

This certification requirement does not apply to emergency or similar notifications where compliance would be impractical.

77. The reporting requirements of this Consent Decree do not relieve Defendant of any reporting obligations required by the CAA or RCRA, or the implementing regulations of these Acts, or by any other federal, state or local law, regulation, permit or other requirement.

78. Any information provided pursuant to this Consent Decree may be used by the United States in any proceeding to enforce the provisions of this Decree and as otherwise permitted by law.

X. STIPULATED PENALTIES

79. Defendant shall be liable for stipulated penalties to the United States for violations of this Consent Decree as specified below, unless excused under Section XIV (Force Majeure). A violation includes failing to perform any obligation required by the terms of this Decree, including any work plan or schedule approved under this Decree, according to all applicable requirements of this Decree and within the specified time schedules established by or

approved under this Decree. Payment by Defendant of stipulated penalties shall not in and of itself constitute an admission of a violation of the Consent Decree.

80. The following stipulated penalty shall accrue per violation per Day for violation of the requirements identified in Paragraphs 15(a), 15(b), 15(c) and 15(d) related to the pounds per hour of PM that may be emitted from any EAF stack:

Penalty per Violation per Day	Period of Noncompliance
$500(x)	Day 1 through 50 after a failed stack test
$2,000(x)	Day 51 through 99 after a failed stack test
$3,000(x)	Day 100 and over after a failed stack test

a. where x derives from the degree of deviation from the emission limit at Paragraph 15(a), 1.90 pounds of PM per hour from the stack associated with EAF No. 4, consistent with Paragraph 15, as follows:

For emissions between 1.91 and 2.85 lbs./hr., x = 1

For emissions between 2.86 and 3.80 lbs./hr., x = 2

For emissions between 3.81 and 5.70 lbs./hr., x = 3

For emissions equal to or greater than 5.71 lbs./hr., x = 4

b. where x derives from the degree of deviation from the emission limit at Paragraph 15(b), 1.75 pounds of PM per hour from the stack associated with EAF No. 5 consistent with Paragraph 15, as follows:

For emissions between 1.76 and 2.63 lbs./hr., x = 1

For emissions between 2.64 and 3.50 lbs./hr., x = 2

For emissions between 3.51 and 5.25 lbs./hr., x = 3

For emissions equal to or greater than 5.26 lbs./hr., x = 4

c. where x derives from the degree of deviation from the emission limit at Paragraph 15(c), 2.38 pounds of PM per hour from the stack associated with EAF No. 6 consistent with Paragraph 15, as follows:

For emissions between 2.39 and 3.57 lbs./hr., x = 1

For emissions between 3.58 and 4.76 lbs./hr., x = 2

For emissions between 4.77 and 7.14 lbs./hr., x = 3

For emissions equal to or greater than 7.15 lbs./hr., x = 4

d. where x derives from the degree of deviation from the emission limit at Paragraph 15(d), 4.39 pounds of PM per hour from the stack associated with EAF No. 7 consistent with Paragraph 15, as follows:

For emissions between 4.40 and 6.59 lbs./hr., x = 1

For emissions between 6.60 and 8.78 lbs./hr., x = 2

For emissions between 8.79 and 13.17 lbs./hr., x = 3

For emissions equal to or greater than 13.18 lbs./hr., x = 4

e. For rounding, see Memorandum from William G. Laxton and John S. Seitz to New Source Performance Standards/National Emission Standards for Hazardous Pollutants Compliance Contacts "Performance Test Calculation Guidelines" (June 6, 1990).

f. Pursuant to CAA Section 113(e)(2), penalties shall accrue from the date of the failed stack test up to, but not including, the date on which Defendant demonstrates compliance with the emission limit in Paragraph 15 through a subsequent stack test, not including any day on which the non-compliant EAF is not operating or Defendant can prove by a preponderance of the evidence that there were intervening days during which no violation occurred or that the violation was not continuing in nature.

81. The following stipulated penalties shall accrue per violation per Day for a violation of the outside opacity standard identified in Paragraph 16:

Penalty per Violation per Day	Opacity Value
$250	21% - 30%
$1,000	31% - 40%
$1,500	≥ 41%

82. The following stipulated penalties shall accrue per violation per Day for any failure to meet any of the requirements identified in Paragraphs 17 (the provision on CPMS installation requirements only) 18, 19, 20, 21, 22, 24, 25 and 26 (BLDS requirements); Paragraphs 28 through 31 (EAF FCS Test requirements); Paragraphs 32 through 43 (performance test requirements); Paragraphs 44 through 49 (opacity observation requirements); Paragraph 50 (consequences of opacity exceedances); Paragraphs 51 through 53 (prepare and submit a modeling protocol, perform AERMOD modeling, and submit a final modeling report); Paragraph 54 (Submission of O&M Plan); and Paragraph 57 (Revision of SSM Plan):

Penalty per Violation per Day	Period of Noncompliance
$250	Day 1 through 15
$1,000	Day 16 through 30
$1,500	Day 31 and beyond

83. The following stipulated penalties shall accrue per violation per Day for any failure to meet any of the operating requirements identified in Paragraph 11 (EAF No. 4 operating requirements); Paragraph 17 (the provision on CPMS operating requirements only); Paragraphs 23 and 27 (BLDS operating requirements); Paragraph 55 (O&M Plan operating

requirements); Paragraphs 56-57 (SSM Plan operating requirements); and Paragraph 60 (containment of EAF dust):

Penalty per Violation per Day	Period of Noncompliance
$250	Day 1 through 15
$2,000	Day 16 through 30
$4,000	Day 31 and beyond

84. The following stipulated penalties shall accrue per violation per Day for each violation of the reporting requirements of Section IX (Reporting Requirements) of this Consent Decree:

Penalty per Violation per Day	Period of Noncompliance
$500	Day 1 through 15
$1,000	Day 16 through 30
$1,500	Day 31 and beyond

85. The following stipulated penalties shall be applicable for failing to meet any other requirement of this Consent Decree (aside from those specified by Paragraphs 80 through 84 above).

Penalty per Violation per Day	Period of Noncompliance
$250	Day 1 through 15
$500	Day 16 through 30
$1,000	Day 31 and beyond

86. Late Payment of Civil Penalty. If Defendant fails to pay the civil penalty required to be paid under Section V of this Decree (Civil Penalty) when due, Defendant shall pay a stipulated penalty of $1,000 per Day for each Day that the payment is late.

87. Stipulated penalties under this Section shall begin to accrue on the Day after performance is due or on the Day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the violation ceases. Stipulated penalties shall accrue simultaneously for separate violations of this Decree.

88. Defendant shall pay any stipulated penalty within thirty (30) Days of receiving the United States' written demand except to the extent that Defendant invokes dispute resolution for alleged violations. Any demand for the payment of stipulated penalties will identify the particular violation(s) to which the stipulated penalty relates, the dates of violation, the stipulated penalty amount the United States is demanding for each violation, the calculation method underlying the demand and the grounds upon which the demand is based.

89. The United States may, in the unreviewable exercise of its discretion, reduce or waive stipulated penalties otherwise due it under this Decree.

90. Stipulated penalties shall continue to accrue, as provided in Paragraphs 79-86, during any Dispute Resolution, but Defendant need not pay until the following:

a. If the dispute is resolved by concession of the Defendant, agreement of the Parties, or by a decision of EPA that is not appealed to the Court, Defendant shall pay the accrued penalties demanded, together with interest, to the United States within thirty (30) Days of the effective date of such concession, agreement or the receipt of EPA's decision or order.

b. If the dispute is appealed to the court and the United States prevails in whole or in part, Defendant shall pay all accrued penalties determined by the court to be owing,

together with interest, within sixty (60) days of the court's decision or order, except as provided in subparagraph e, below.

e. If any party appeals the court's decision, Defendant shall pay all accrued penalties as ordered by the court, together with interest, within fifteen (15) days of the date of final adjudication of the dispute.

d. If EPA issues a demand for stipulated penalties and defendant does not dispute a portion of the demand, or the parties resolve a portion of the demand, then defendant shall pay the accrued stipulated penalties associated with the undisputed or resolved portion, together with interest, to the United States, within thirty (30) days of the resolution.

91. Upon the Effective Date of this Consent Decree, the stipulated penalty provisions of this Decree shall be enforceable.

92. Defendant shall pay stipulated penalties owing to the United States in the manner set forth and with the confirmation notices required by Paragraph 9, except that the transmittal letter shall state that the payment is for stipulated penalties and shall identify the violation(s) for which the penalties are being paid. If Defendant fails to pay stipulated penalties according to the terms of this Decree, Defendant shall be liable for interest on such penalties, as provided for in 28 U.S.C. § 1961, accruing as of the date payment became due. Nothing in this Paragraph shall be construed to limit the United States from seeking any remedy otherwise provided by law for Defendant's failure to pay any stipulated penalties.

93. Subject to the provisions of Section XVIII of this Decree (Effect of Settlement/ Reservation of Rights), the stipulated penalties provided for in this Decree shall be in addition to any other rights, remedies or sanctions available to the United States for Defendant's violation of this Consent Decree or applicable law. Where a violation of this Decree is also a violation of the

CAA or RCRA, any of their implementing regulations, or any permit issued to Defendant pursuant to either the CAA or RCRA, Defendant shall be allowed a credit, for any stipulated penalties paid, against any statutory penalties imposed for such violation.

XI. FORCE MAJEURE

94. Force majeure, for purposes of this Decree, is defined as any event arising from causes beyond the control of Defendant, of any entity controlled by Defendant, or of Defendant's contractors, which delays or prevents the performance of any obligation under this Decree despite Defendant's best efforts to fulfill the obligation. The requirement that Defendant exercise best efforts to fulfill the obligation includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any such event (a) as it is occurring and (b) after it has occurred to "prevent or minimize any resulting delay to the greatest extent possible. "Force Majeure" does not include Defendant's financial inability to perform any obligation under this Decree.

95. If any event occurs or has occurred that may delay the performance of any obligation under this Decree, whether or not caused by a force majeure event, Defendant shall provide notice via telephone or email to Greg Gehrig, EPA Region 5 Air and Radiation Division, at 312-886-4434 or gehrig.greg@epa.gov within seventy-two (72) hours of when Defendant first knew that the event might cause a delay. Within five (5) days of providing such notice, Defendant shall provide in writing to EPA an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementing any measures to be taken to prevent or mitigate the delay or the effect of the delay; Defendant's rationale for attributing such delay to a force majeure event, if it intends to assert such a claim; and a statement as to whether, in the opinion of

Defendant, such event may cause or contribute to an endangerment to public health, welfare, or the environment. Defendant shall include with any notice all available documentation supporting the claim that the delay was attributable to a force majeure. Failure to comply with the above requirements shall preclude Defendant from asserting any claim of force majeure for that event for the period of time of such failure to comply, and for any additional delay caused by such failure. Defendant shall be deemed to know of any circumstance of which Defendant, any entity controlled by Defendant, or Defendant's contractors knew or should have known.

96. If EPA agrees that the delay or anticipated delay is attributable to a force majeure event, the time for performance of the obligations under this Decree that are affected by the force majeure event will be extended by EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the force majeure event shall not, of itself, extend the time for performance of any other obligation. EPA will notify Defendant in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure event.

97. If EPA does not agree that the delay or anticipated delay has been or will be caused by a force majeure event, EPA will notify Defendant in writing of its decision.

98. If Defendant elects to invoke the dispute resolution procedures set forth in Section XV (Dispute Resolution), it shall do so no later than ten (10) Days after receipt of EPA's notice of its decision regarding an extension related to a force majeure event. In any such proceeding, Defendant shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure event, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Defendant complied

with the requirements of Paragraph 94. If Defendant carries this burden, the delay at issue shall be deemed not to be a violation by Defendant of the affected obligation of this Decree identified to EPA and the Court.

XII. DISPUTE RESOLUTION

99. Except as otherwise expressly provided for in Section VIII (Permit Requirements) of this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Decree. Defendant's failure to seek resolution of a dispute under this Section shall preclude Defendant from raising any such issue as a defense to an action by the United States to enforce any obligation of Defendant arising under this Decree.

100. Informal Dispute Resolution. Any dispute subject to Dispute Resolution under this Consent Decree shall first be the subject of informal negotiations. The dispute shall be considered to have arisen when Defendant sends the United States a written Notice of Dispute. Such Notice of Dispute shall state clearly the matter in dispute. The period of informal negotiations shall not exceed twenty (20) Days from the date the dispute arises, unless that period is modified by written agreement. If the Parties cannot resolve a dispute by informal negotiations, then the position advanced by the United States shall be binding on Defendant unless, within five (5) Days after the conclusion of the informal negotiation period, Defendant invokes formal dispute resolution procedures as set forth below.

101. Formal Dispute Resolution. Defendant shall invoke formal dispute resolution procedures, within the time period provided in the preceding Paragraph, by serving on the United States a written Statement of Position regarding the matter in dispute. The Statement of Position

shall include, but need not be limited to, any factual data, analysis or opinion supporting Defendant's position and any supporting documentation relied upon by Defendant.

102. The United States shall serve its Statement of Position within thirty (30) Days of receipt of Defendant's Statement of Position. The United States' Statement of Position shall include, but need not be limited to, any factual data, analysis or opinion supporting that position and any supporting documentation relied upon by the United States. The United States' Statement of Position shall be binding on Defendant, unless Defendant files a motion for judicial review of the dispute in accordance with this Section.

103. An administrative record of the dispute shall be maintained by EPA and shall contain all Statements of Position, including supporting documentation, submitted pursuant to this Section. Where appropriate, EPA may allow submission of supplemental statements of position by the parties to the dispute.

104. Judicial Review. Defendant may seek judicial review of the dispute by filing with the Court and serving on the United States, consistent with Section XVII (Notices) of this Decree, a motion requesting judicial resolution of the dispute. The motion must be filed within twenty (20) Days of receipt of the United States' Statement of Position pursuant to the preceding Paragraph. The motion shall contain a written statement of Defendant's position on the matter in dispute, including any supporting factual data, analysis, opinion, or documentation, and shall set forth the relief requested and any schedule within which the dispute must be resolved for orderly implementation of this Decree.

105. The United States shall respond to Defendant's motion within the time period allowed by the Local Rules of this Court. Defendant may file a reply memorandum to the extent permitted by this Court's Local Rules.

106. Standard of Review For Disputes Concerning Matters Accorded Record Review. Except as otherwise provided in this Decree, in any dispute brought under Paragraph 101 (Formal Dispute Resolution) pertaining to the adequacy or appropriateness of plans, procedures to implement plans, schedules or any other items requiring EPA's approval under this Consent Decree, not to include Defendant's obligation to seek any modified or new air permits; the adequacy of the performance of work undertaken pursuant to this Decree; and all other disputes that are accorded review on the administrative record under applicable principles of administrative law, Defendant shall have the burden of demonstrating, based on the administrative record, that the position of the United States is arbitrary and capricious or otherwise not in accordance with law.

107. Standard of Review for Other Disputes. Except as otherwise provided in this Decree, in any other dispute brought under Paragraph 101 (Formal Dispute Resolution), Defendant shall bear the burden of demonstrating that its position complies with and furthers the objectives of this Decree.

108. The invocation of dispute resolution procedures under this Section shall not, by itself, extend, postpone or affect in any way any obligation of Defendant under this Decree, unless and until final resolution of the dispute so provides. Stipulated penalties with respect to the disputed matter shall continue to accrue from the first Day of noncompliance, but payment shall be stayed pending resolution of the dispute as provided in Section XV (Dispute Resolution). If Defendant does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section X (Stipulated Penalties).

XIII. INFORMATION COLLECTION AND RETENTION

109. The United States and its representatives, including attorneys, contractors and consultants, shall have the right of entry into the Facility covered by this Decree, at all reasonable times, upon presentation of credentials, to:

a. monitor the progress of activities required under this Decree;

b. verify any data or information submitted to the United States in accordance with the terms of this Decree;

c. obtain samples and, upon request, splits of any samples taken by Defendant or its representatives, contractors, or consultants;

d. obtain documentary evidence, including photographs and similar data; and

e. assess defendant's compliance with this decree

110. Upon request, Defendant shall provide to EPA, or its authorized representative, splits of any samples taken by Defendant. Upon request, EPA shall provide to Defendant splits of any samples taken by EPA.

111. Until three years after the termination of this Decree, Defendant shall retain, and shall instruct its contractors and agents to preserve, all non-identical copies of all documents, records or other information (including documents, records, or other information in electronic form) in its or its contractors' or agents' possession or control, or that come into its or its contractors' or agents' possession or control, that relate in any manner to Defendant's performance of its obligations under this Decree. This information retention requirement shall apply regardless of any contrary corporate or institutional policies or procedures. At any time during this information retention period, upon request by the United States, Defendant shall

provide copies of any documents, records, or other information required to be maintained under this Paragraph.

112. At the conclusion of the information retention period provided in the preceding Paragraph, Defendant shall notify the United States at least ninety (90) Days prior to the destruction of any documents, records or other information subject to the requirements of the preceding Paragraph, and, upon request by the United States, Defendant shall deliver any such documents, records or other information to EPA. Defendant may assert that certain documents, records or other information is privileged under the attorney-client privilege or any other privilege recognized by federal law. If Defendant asserts such a privilege, it shall provide to the United States the following: (a) the title of the document, record, or information; (b) the date of the document, record or information; (c) the name and title of each author of the document, record or information; (d) the name and title of each addressee and recipient; (e) a description of the subject of the document, record, or information; and (f) the privilege asserted by Defendant. However, no documents, records or other information created or generated pursuant to the requirements of this Decree shall be withheld on grounds of privilege.

113. Defendant may also assert that information required to be provided under this Section is protected as Confidential Business Information ("CBI") under 40 C.F.R. Part 2. As to any information that Defendant seeks to protect as CBI from disclosure to the public, Defendant shall follow the procedures set forth in 40 C.F.R. Part 2.

114. This Decree in no way limits or affects any right of entry and inspection, or any right to obtain information, held by the United States pursuant to applicable federal laws, regulations or permits, nor does it limit or affect any duty or obligation of Defendant to maintain

documents, records or other information imposed by applicable federal or state laws, regulations, or permits.

XIV. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS

115. Claims Resolved. This Consent Decree resolves the civil claims of the United States for the violations alleged in the CAA NOV, RCRA NOV and Complaint filed in this action through the date of lodging.

116. The resolution of claims in the Paragraph above is conditioned upon the veracity and completeness of the Financial Information provided to EPA by Defendant, and the financial, insurance and indemnity certification made by Defendant in Paragraph 123. If the Financial Information provided by Defendant, or the financial, insurance and indemnity certification made by Defendant in Paragraph 123, is subsequently determined by EPA to be false or, in any material respect, inaccurate, Defendant shall forfeit the civil penalty payment made pursuant to this Consent Decree, and this effect of settlement shall be null and void. Such forfeiture shall not constitute liquidated damages and shall not in any way foreclose the United States' right to pursue any other causes of action arising from Defendant's false or materially inaccurate information.

117. The United States reserves all legal and equitable remedies available to enforce the provisions of this Decree, except as expressly stated in Paragraph 115 (Claims Resolved). This Decree shall not be construed to limit the rights of the United States to obtain penalties or injunctive relief under the CAA or RCRA or their implementing regulations, or under other federal laws, regulations or permit conditions, except as expressly specified in Paragraph 115 (Claims Resolved). The United States further reserves all legal and equitable remedies to address any imminent and substantial endangerment to the public health or welfare or the

environmental arising at, or posed by, Defendant's Facility, whether related to the violations addressed in this Decree or otherwise.

118. In any subsequent administrative or judicial proceeding initiated by the United States for injunctive relief, civil penalties or other appropriate relief relating to CAA or RCRA violations at the Facility, Defendant shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim preclusion, claim-splitting or other defenses based upon any contention that the claims raised by the United States in the subsequent proceeding were or should have been brought in the instant case, except with respect to claims that have been specifically resolved pursuant to Paragraph 115 (Claims Resolved).

119. This Decree is not a permit, or a modification of any permit, under any federal, State or local laws or regulations. Defendant is responsible for achieving and maintaining complete compliance with all applicable federal, State and local laws, regulations and permits; and Defendant's compliance with this Decree shall be no defense to any action commenced pursuant to any such laws, regulations or permits, except as set forth herein. The United States does not, by its consent to the entry of this Consent Decree, warrant or aver in any manner that Defendant's compliance with any aspect of this Consent Decree will result in compliance with provisions of CAA § 112, 42 U.S.C. § 7412, or CAA § 502, 42 U.S.C. § 7661a, RCRA § 3005(a), 42 U.S.C. § 6925(a), or RCRA § 3004, 42 U.S.C. § 6924, or with any other provision of federal, State or local laws, regulations or permits.

120. This Consent Decree does not limit or affect the rights of Defendant or of the United States against any third parties, not party to this Decree, nor does it limit the rights of third parties, not party to this Decree, against Defendant, except as otherwise provided by law.

121. This Decree shall not be construed to create rights in, or grant any cause of action to, any third party not party to this Decree.

122. Notwithstanding any other provision of this Consent Decree, the United States reserves, and this Consent Decree is without prejudice to, the right to reinstitute or reopen this action, or to commence a new action seeking relief other than as provided in this Consent Decree, if the Financial Information provided by Defendant or the financial, insurance, or indemnity certification made by Defendant in Paragraph 123 is false or, in an material respect, inaccurate.

XV. CERTIFICATION

123. Defendant certifies that, to the best of its knowledge and belief, after thorough inquiry, it has:

a. not altered, mutilated, discarded, destroyed or otherwise disposed of any records, reports or other information relating to: (i) its potential CAA liability regarding the Facility since its receipt of the CAA NOV; and (ii) its potential RCRA liability regarding the Facility since its receipt of the RCRA NOV;

b. fully complied with any and all EPA requests for information regarding the Facility and Defendant's financial circumstances;

c. submitted to the United States financial information that fairly, accurately and materially sets forth Defendant's financial circumstances, and that those circumstances have not materially changed between the time the financial information was submitted to the United States and the time Defendant executes this Consent Decree; and

d. fully disclosed any information regarding the existence of any insurance policies or indemnity agreements that may cover claims relating to the Facility, and submitted to EPA and DOJ upon request such insurance policies, indemnity agreements, and information.

XVI. COSTS

124. The Parties shall bear their own costs of this action, including attorneys' fees, except that the United States shall be entitled to collect the costs (including attorneys' fees) incurred in any action necessary to collect any portion of the civil penalty or any stipulated penalties due but not paid by Defendant.

XVII. NOTICES

125. Unless otherwise specified herein, whenever notifications, submissions or communications are required by this Consent Decree, they shall be made in writing and addressed as follows:

To the United States:

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
Box 7611 Ben Franklin Station
Washington, D.C. 20044-7611
Re: DOJ No. 90-5-2-1-10613

and

Chief, Civil Division
United States Attorney's Office
Eastern District of Wisconsin
517 East Wisconsin Avenue, Room 530
Milwaukee, WI 53202

To EPA:

Air and Radiation Division
U.S. Environmental Protection Agency
Region 5

77 W. Jackson Blvd. (AE-17J)
Chicago, IL 60604
Attn: Compliance Tracker

and

Office of Regional Counsel
U.S. Environmental Protection Agency
Region 5
77 W. Jackson Blvd. (C-14J)
Chicago, IL 60604

To WDNR:

Bill Baumann
Acting Director
Bureau of Air Management
Wisconsin Department of Natural Resources
101 S. Webster St.
PO Box 7921 (AM/7)
Madison, WI 53702

and

Daniel Schramm
Air Management Supervisor
Wisconsin Department of Natural Resources
Bureau of Air Management
2300 N. Martin Luther King Jr. Dr.
Milwaukee, WI 53212

To Defendant:

Michael Wabiszewski
President and CEO
Maynard Steel Casting Company
2856 South 27th Street
Milwaukee, Wisconsin 53215

and

Steven M. Biskupic
Biskupic & Jacobs, S.C.
1045 W. Glen Oaks Lane, Suite 106
Mequon, WI 53092

and

Todd Palmer
Michael, Best and Friedrich LLP
100 E. Wisconsin Ave., Ste. 3300
Milwaukee, WI 53202

Any Party may, by written notice to the other Parties, change its designated notice recipient or notice address provided above.

126. Notices submitted pursuant to this Section shall be deemed submitted upon mailing, unless otherwise provided in this Decree or by mutual agreement of the Parties in writing.

XVIII. EFFECTIVE DATE

127. The Effective Date of this Decree shall be the date upon which this Decree is entered by the Court or a motion to enter this Decree is granted, whichever occurs first, as recorded on the Court's docket; provided, however, that Defendant hereby agrees that it shall be bound to perform duties scheduled to occur prior to the Effective Date. In the event the United States withdraws or withholds consent to this Decree before entry, or the Court declines to enter this Decree, then the preceding requirement to perform duties scheduled to occur before the Effective Date shall terminate.

XIX. RETENTION OF JURISDICTION

128. The Court shall retain jurisdiction over this case until termination of this Decree, for the purpose of resolving disputes arising under this Decree or entering orders modifying this Decree, pursuant to Sections XV (Dispute Resolution) and XXV (Modification), or effectuating or enforcing compliance with the terms of this Decree.

XX. MODIFICATION

129. The terms of this Consent Decree, including any attached appendices, may be modified only by a subsequent written agreement signed by all the Parties. Where the modification constitutes a material change to this Decree, it shall be effective only upon approval by the Court.

130. Any disputes concerning modification of this Decree shall be resolved pursuant to Section XV of this Decree (Dispute Resolution), provided, however, that, instead of the burden of proof provided by Paragraphs 106 and 107 (Standard of Review), the Party seeking the modification bears the burden of demonstrating that it is entitled to the requested modification in accordance with Federal Rule of Civil Procedure 60(b).

XXI. TERMINATION

131. After Defendant has: (a) satisfactorily completed performance of the requirements of Section VI (Compliance Requirements) of this Decree as determined by EPA; (b) has thereafter maintained continuous satisfactory compliance with this Decree and Defendant's CAA permit for a period of twelve (12) consecutive months; and (c) paid the civil penalty and any accrued stipulated penalties as required by this Decree, Defendant may serve upon the United States a Request for Termination, stating that Defendant has satisfied those requirements, together with all necessary supporting documentation.

132. Following receipt by the United States of Defendant's Request for Termination, the Parties shall confer informally concerning the Request and any disagreement that the Parties may have as to whether Defendant has satisfactorily complied with the requirements for termination of this Decree. If the United States agrees that this Decree may be terminated, the Parties shall submit, for the Court's approval, a joint stipulation terminating this Decree.

133. If the United States does not agree that this Decree may be terminated, Defendant may invoke Dispute Resolution under Section XV of this Decree. However, Defendant shall not seek Dispute Resolution of any dispute regarding termination, under Section XV, until sixty (60) Days after service of its Request for Termination.

XXII. PUBLIC PARTICIPATION

134. This Decree shall be lodged with the Court for a period of not less than thirty (30) Days for public notice and comment in accordance with 28 C.F.R. § 50.7. The United States reserves the right to withdraw or withhold its consent if the comments regarding this Decree disclose facts or considerations indicating that this Decree is inappropriate, improper or inadequate. Defendant consents to entry of this Decree without further notice and agrees not to withdraw from or oppose entry of this Decree by the Court or to challenge any provision of this Decree, unless the United States has notified Defendant in writing that it no longer supports entry of this Decree.

XXIII. SIGNATORIES/SERVICE

135. Each undersigned representative of Defendant and the Assistant Attorney General for the Environment and Natural Resources Division of the United States Department of Justice certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind the Party he or she represents to this document.

136. This Decree may be signed in counterparts, and its validity shall not be challenged on that basis. Defendant agrees to accept service of process by mail with respect to all matters arising under or relating to this Decree and to waive the formal service requirements set forth in Rules 4 and 5 of the Federal Rules of Civil Procedure and any applicable Local Rules of this Court including, but not limited to, service of a summons.

XXIV. APPENDICES

137. The following appendices are attached to and part of this Consent Decree:

a. Appendix A is the Fume Collection System Study.

b. Appendix B is the O&M Plan.

c. Appendix C is the Electric Arc Furnace – Outdoor Fugitive Emissions Opacity Monitoring Protocol.

d. Appendix D is the List of Financial Information Submitted by Defendant for the Ability to Pay Analysis.

e. Appendix E is the Diagram of RCRA Containment Structure.

XXV. INTEGRATION

138. This Consent Decree constitutes the final, complete and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Decree and supersedes all prior agreements and understandings, whether oral or written, concerning the settlement embodied herein. Other than deliverables that are subsequently submitted and approved pursuant to this Decree, no other document, nor any representation, inducement, agreement, understanding or promise constitutes any part of this Decree or the settlement it represents, nor shall it be used in construing the terms of this Decree.

XXVI. FINAL JUDGMENT

139. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment of the Court as to the United States and Defendant.

Dated and entered this _____ day of _____, _____.

_____

[_____]

UNITED STATES DISTRICT JUDGE

Eastern District of Wisconsin

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States v. Maynard Steel Casting Company* (E.D. Wis.).

FOR THE UNITED STATES OF AMERICA

DATE: 02-28-2017

THOMAS A. MARIANI, JR.
Section Chief
Environmental Enforcement Section
Environment & Natural Resources Division
U.S. Department of Justice
Washington, DC 20530

DATE: 03/01/2017

JENNIFER A. LUKAS-JACKSON
Senior Attorney
Environmental Enforcement Section
Environment & Natural Resources Division
U.S. Department of Justice
P.O. Box 7611, Ben Franklin Station
Washington, DC 20044
(202) 305-2332
jennifer.lukas-jackson@usdoj.gov

DATE: 3-1-2017

CHRIS R. LARSEN
Assistant United States Attorney
Eastern District of Wisconsin
517 East Wisconsin Avenue, Room 530
Milwaukee, WI 53202

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of United States v. Maynard Steel Casting Company (E.D. Wis.).

DATE: 8/24/16

ROBERT A. KAPLAN
Acting Regional Administrator
U.S. Environmental Protection Agency
Region 5

DATE: 7/15/2016

T. LEVERETT NELSON
Regional Counsel
U.S. Environmental Protection Agency
Region 5

DATE: 7/11/16

CATHERINE GARYPIE
Associate Regional Counsel
U.S. Environmental Protection Agency
Region 5
77 W. Jackson Blvd.
Chicago, IL 60604

THE UNDERSIGNED PARTY enters into this Consent Decree in the matter of *United States v. Maynard Steel Casting Company* (E.D. Wis.).

FOR MAYNARD STEEL CASTING COMPANY

DATE: 8/5/16

MICHAEL WABISZEWSKI
President and CEO
Maynard Steel Casting Company
2856 South 27th Street
Milwaukee, WI 53215

DATE: 8/12/16

STEVEN M. BISKUPIC
Biskupic & Jacobs, S.C.
1045 W. Glen Oaks Lane, Suite 106
Mequon, WI 53092

Exhibit 4

Consent Decree in

United States of America v.
Maynard Steel Casting Co. (E.D. Wis.)

Appendix C

Electric Arc Furnace – Outdoor Fugitive Emissions Opacity Monitoring Protocol

Appendix C
Electric Arc Furnace - Outdoor Fugitive Emissions Opacity Monitoring Protocol

1.0 Purpose

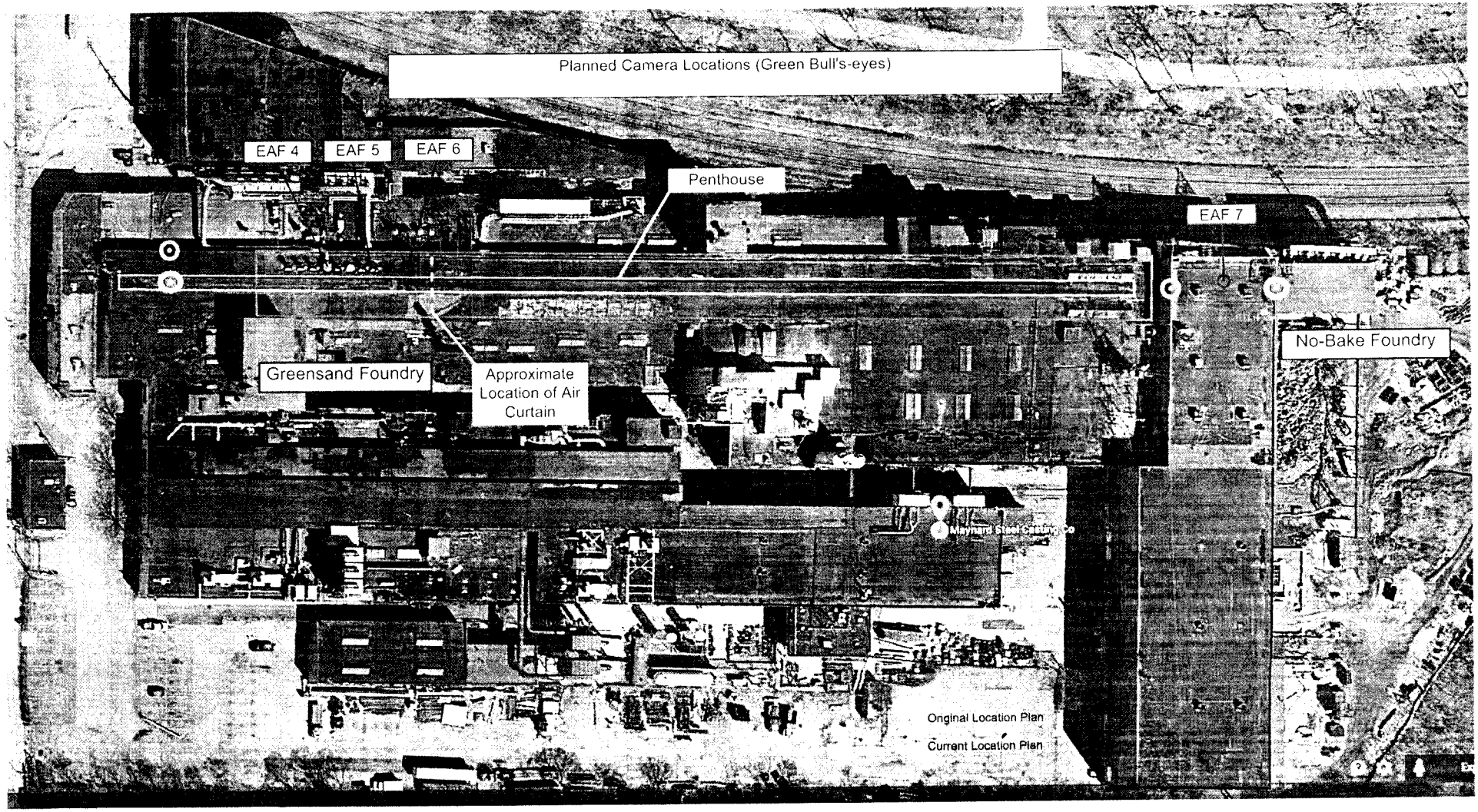
Uncaptured particulate matter ("PM") emissions from electric arc furnace ("EAF") charging, melting, refining, and tapping operations that are not directly or secondarily captured by an EAF Fume Collection System ("FCS"), generally may not be emitted to the atmosphere if they exhibit an opacity greater than 20 percent for a 6-minute interval, pursuant to s. NR 431.05, Wisconsin Administrative Code, and as specified under Paragraph 16 of the Consent Decree. This Protocol serves to detail the compliance monitoring approach that will be employed, when required, to measure the outdoor opacity associated with any fugitive emissions attributed to EAF operations that may emanate from the melt department of the Maynard Steel Casting Company ("Maynard") foundry and into the ambient atmosphere.

1.1 Background

Maynard currently has four EAFs, which are designated as EAF Nos. 4, 5, 6, and 7—each of which is equipped with a FCS that includes a shaker—type baghouse. Maynard's internal nomenclature refers to the foundry operations in the East End building (approximately the northern-most third of which physically houses EAF No. 7) as the "No-Bake Foundry" – See Figure 1. The portion of the facility that houses the balance of the foundry operations, including EAF Nos. 4, 5, and 6, is referred to as the "Greensand Foundry", which spans a continuous area along the north side of the facility that runs from west to east – See Figure 1. Although the "Greensand Foundry" ends at the East End building, there is no physical internal wall that separates the "Greensand Foundry" from the "No-Bake Foundry". While these names describe the majority of foundry operations that are typically performed in the respective areas, the descriptions are not to be interpreted as exclusive – *e.g.*, no-bake molds can be poured & cooled in the "Greensand Foundry".

EAF Nos. 4, 5, and 6 are located in the west portion of the "Greensand Foundry". These furnaces are arranged in order of increasing numeric identifier (4-5-6) from west to east. A north-south air curtain that bisects the bay is positioned to the immediate east of EAF No. 6, and is intended to retain the majority of the fugitive indoor emissions from these three furnaces in the west end of the "Greensand Foundry" to provide opportunities for secondary capture of such emissions via the local capture hoods of the associated FCSs. The approximate locations of the air curtain and of each of the EAFs are depicted on Figure 1.

The vertical temperature gradient within the foundry tends to increase from floor to ceiling, which contributes to a prevailing air movement from floor to ceiling due to the thermal buoyancy of the air. Ordinarily, the source of energy that causes air to rise above a hot process and expand into a thermal plume is caused by natural (*i.e.*, not forced) convective heat transfer off of hot surfaces. In the case of an EAF, natural convection is accompanied by another significant source of thermal energy that is not convective, namely the high thermal gradient between the furnace interior and the surrounding air, coupled with the



MAYNARD STEEL CASTING COMPANY
EAF Opacity Monitoring Protocol
Figure 1. General Layout [2015-09-21]

expansion of compressed air within the furnace, which pushes air upward via buoyant forces in a jet stream that exits the EAF through the annular spaces around the electrodes. Consequently, the velocity of the rising air within the foundry varies from area to area, depending on various factors, including ambient temperature, the nature of hot processes (*e.g.*, temperature, heated surface area, etc.), thermal energy inputs, and local exhaust hood capture efficiency, etc. In particular, the velocity is expected to be higher in areas immediately above an operating EAF due to the associated localized acute thermal energy.

The intensity of the thermal rise in air masses decreases as air cools and the thermal energy dissipates. Additionally, when the rising air mass contacts the underside of the roof, it tends to roll and, in so doing, loses energy and changes air flow direction; thereby providing opportunities for local capture hoods associated with powered FCSs to secondarily capture the air along with any entrained PM emissions. If the rising and/or rolling air mass encounters an opening in the building (*e.g.*, windows, pedestrian doors, vents, windows, etc.), then a portion of the air – along with any uncaptured PM contained therein – has the potential to migrate out of the building and into the atmosphere as fugitive emissions.

As detailed in a May 1, 2013, transmittal to the USEPA from Maynard, which is hereby incorporated by reference, there are limited areas in the roofs of the melt department of the foundry through which uncaptured emissions have the potential to migrate out of the building, to the extent that such areas are not otherwise closed or sealed. The areas include, but are not necessarily limited to gaps in steel panels on the roof, pedestrian doors, and rotary roof exhaust vents (non-operating). Notably, a penthouse runs along the approximate east-west centerline axis of the "Greensand Foundry", as depicted on Figure 1, which is flanked on both the north and the south sides by hinged, 4' x 8' windowed panels. Natural draft openings associated with these panels are possible if they are not completely closed, or if windows are damaged or are otherwise misaligned. Such openings are reasonably anticipated to be the most likely path for concentrated fugitive emissions from EAF operations to exit the building (particularly in the area immediately above an operating EAF) due two primary factors:

1. Proximity to the Source of PM Emissions: Uncaptured emissions tend to dissipate the further they migrate from the source and as the plume expands; therefore, fugitive emissions may reasonably be more concentrated when leaving the building via openings that are closest to the EAF.

2. Intensity & Redirection of Air Mass: The intensity of the thermal rise tends to decrease as thermal energy dissipates with increasing distance from the source of the thermal energy. The higher the intensity, the greater the likelihood for uncaptured PM emissions entrained in the air mass to more forcibly exit the building via available openings. Moreover, as the rising air mass encounters the underside of the penthouse roof, it begins to roll, thereby changing direction from vertical to horizontal and then down again. Within the penthouse, the roll initially redirects the air mass towards the windowed panels on the north and south sides of the foundry.

2.0 Methods and Approach

The EAF melting operations normally take place during off-peak hours, between 8:00 p.m. and 8:00 a.m. Understanding that the majority of the EAF operations take place after sunset and before sunrise, compliance with the applicable opacity requirement must be demonstrated using methods that use available natural or artificial lighting. The primary method that will be used for opacity monitoring during both nighttime and daytime hours is discussed under Section 2.1, while alternate methods for nighttime and daytime monitoring are discussed in Sections 2.2 and 2.3, respectively.

2.1 Opacity Monitoring – Primary Approach

The primary method that Maynard will use to measure opacity from its EAF operations during both nighttime and daytime hours is EPA Alternate Method 082 (ASTM D7520) - *Standard Test Method for Determining the Opacity of a Plume in the Outdoor Ambient Atmosphere*[1]. In accordance with this method, digital imagery and associated hardware and software are used to determine the opacity of a plume. Opacity is determined by applying a Digital Camera Opacity Technique ("DCOT") that consists of a digital still camera, analysis software, and the output functions[2] content to obtain and interpret digital images of a plume.

This method uses a digital camera to capture a set of images against a contrasting background. Then analysis software is used to determine the plume opacity of each image by comparing a selected portion of the plume image where opacity is being measured to the background providing the contrasting values. The analysis software averages the opacities from a series of digital images taken over a fixed period of time.

2.1.1 Digital Still Camera

Maynard has purchased two VIVOTEK SD8363E Speed Dome Network Cameras with 1080p full HD resolution and a 20x optical zoom lens (specifications provided in Attachment 1). Each camera is enclosed in a IP66- and NEMA 4X-rated housing that protects the camera body against rain, dust, and corrosion within a wide temperature range of between -40°C to 55°C. According to the manufacturer (VIVOTEK Inc.), this camera is especially suited for monitoring wide open outdoor spaces such as airports, highways, and parking lots where high-level reliability and precision are required. This camera model is equipped with a pan/tilt mechanism that provides precise movement with continuous 360-degree pan and 220-degree tilt. The lens position can be controlled via a mouse or a joystick to track an object of interest, and to set up to 256 preset positions. This camera model was DCOT certified in accordance with Section 9, ASTM D7520, by Virtual Technology, LLC on June 22, 2015, and June 25, 2015, to capture daytime and nighttime images, respectively.

---

[1] Although Section 6.2 of ASTM D7520-13 states that this method shall only be used during daytime conditions, USEPA Region 5, during a January 27, 2015, meeting with Maynard, specifically identified this method as being acceptable for use in nighttime opacity monitoring. Virtual Technology, LLC affirmed the acceptability of this method by USEPA Region 5 for nighttime opacity monitoring during a meeting with Maynard on February 23, 2015.

[2] Defined under Section 3.2.9 of ASTM D7520-13 as "human readable information documenting the image being analyzed and configuration of the Analysis Software used, the opacity measurement and the other required environment variables defined (for example, view angle, wind direction)."

These digital cameras are capable of continuous digital motion image recording from which digital still images can be extracted for analysis. Such images are in JPEG format that adheres to the Exchangeable Image File (EXIF) 2.1 (or higher) format standard required under Section 4.2.1, ASTM D7520. Images captured for analysis are required to use the camera's auto-focus and auto-exposure settings, and may use the optical zoom feature. However, any flash, optical filters, digital zoom, and image stabilization of the camera may not be used when recording digital images of the plumes.

This Protocol has been developed to include two stationary, roof-mounted cameras for redundancy, and to provide flexibility in selecting an appropriate camera position for use in obtaining images for analysis (*e.g.*, considering factors such as prevailing air flow direction). The approximate locations for the two cameras are planned for opposite ends of the melt department along its east-west axis, as illustrated on Figure 1. At each location, the camera will be mounted above the roof surface. The west location will be positioned so that is can look east from atop the north wall of the Greensand Foundry (*i.e.*, above the crane level windows), thereby providing views of fugitive emissions from north-facing openings along the melt department in the immediate vicinity of EAFs 4, 5, and 6 (*i.e.*, looking down along the crane level windows, and along the north-facing penthouse windows). This position is also intended to provide a view of fugitive emissions from EAF 7 that may emanate from the roof of the East End Building. For the east end location, the camera will be positioned atop the west side of the roof of the East End building so that it can look east across the roof of the East End building, and also rotate to look west along the approximate east-west centerline of the penthouse of the Greensand Foundry. From this vantage point, fugitive emissions can be monitored from the roof of the East End building and along the length of the Greensand Foundry.

The cameras will be initially located at the planned locations described above to obtain test images that will be submitted to Virtual Technology, LLC. These test images will be used to determine if the locations and relative positioning of the cameras yield adequate images for opacity determination via its analysis software, which is discussed in Section 2.1.3 of this Protocol. If so, then the camera locations will be established as describe above. Otherwise, alternate locations will be investigated as directed by Virtual Technology, LLC in consultation with appropriate Maynard representatives with appropriate knowledge related to the technical feasibility associated with potential alternate locations (*e.g.*, in due consideration of access to power, obstructions, etc.).

2.1.2 Ambient Lighting

A plume is most visible and presents the greatest apparent opacity when it is viewed against a contrasting background. In accordance with Section 4.2.4 of ASTM D7520, ambient light must be sufficient to show a clear contrast between the plume and its background. According to Mr. Shawn Dolan, President - Virtual Technology, LLC (*i.e.*, the company that certified the above-noted camera), the nighttime certification of the camera model discussed in Section 2.1.1 (above) was completed with a clear sky and approximately half a moon without any supplemental backlighting. Based on a September 2015, review by Virtual Technology of test nighttime images with overcast

skies, supplemental backlighting is expected to be necessary for nighttime opacity monitoring. To do this, supplemental artificial lighting will be provided to wash the roof-top areas in the immediate vicinity of the EAFs with sufficient artificial lighting to provide an adequate contrasting background against which opacity will be measured. Maynard will provide USEPA, for review and approval, site-specific lighting plans for: (1) conducting nighttime opacity observations with a certified observer; and (2) conducting nighttime opacity readings using a certified camera, in accordance with Paragraph 48 of the Consent Decree.

If opacity monitoring is conducted during daylight hours (*i.e.*, after sunrise and before sunset), then natural lighting will serve as the ambient lighting in lieu of the artificial lighting described above.

2.1.3 Analysis Software

The opacity from the digital images captured via the cameras, which are digitally time and date stamped, will be evaluated using Digital Optical Compliance System II (DOCS II) software, which is commercially available only from Virtual Technology, LLC. Meteorological information (*e.g.*, wind speed & direction) used in the assessment is obtained via National Oceanic and Atmospheric Administration (NOAA) resources that are representative of Maynard's location. The portion of the plume selected for opacity determination will represent the part of the plume with the highest apparent opacity, excluding water vapor, as determined by the DCOT operator[3], and will be centered in the digital image (Sections 4.2.5 through 4.2.8, ASTM D7520).

In brief, the software compares selected "in the plume" areas to selected "background" areas adjacent to the plume. The difference between "in the plume" values and "out of the plume" values is correlated to opacity by the DOCS II software. This software is capable of assessing images in either simple or complex analysis modes. The simple mode may be used for homogenous (but not gray) backgrounds, such as black or white smoke on a blue background. In this mode, "in plume" and "out of plume" sticks (boxes) are positioned on corresponding areas of the image, as illustrated in Figure 2. The software then estimates the opacity between the two selected image areas.

The complex mode may be used on heterogeneous backgrounds (*e.g.*, wooded area) and gray backgrounds. When using the complex mode, a zero opacity image, which is effectively a duplicate of the image to be assessed before emissions are generated, typically needs to be selected for use as the background. "In plume" and "out of plume" sticks (boxes) are iteratively positioned on the background image until obtaining a green or yellow light to proceed (see Figure 3). The software is then used to superimpose the zero opacity/background image on each image to be analyzed before proceeding to determine the opacity measurement.

Maynard will obtain and use the software to analyze the opacity assessments, or electronically submit the images to be analyzed to Virtual Technology, LLC for assessment as part of its Software as a Service ("SaaS") service offering.

---

[3] *DCOT operator* is defined as the individual operating the DCOT system that records the digital still images with the Digital Still Camera and then determines plume opacity with the analysis software.

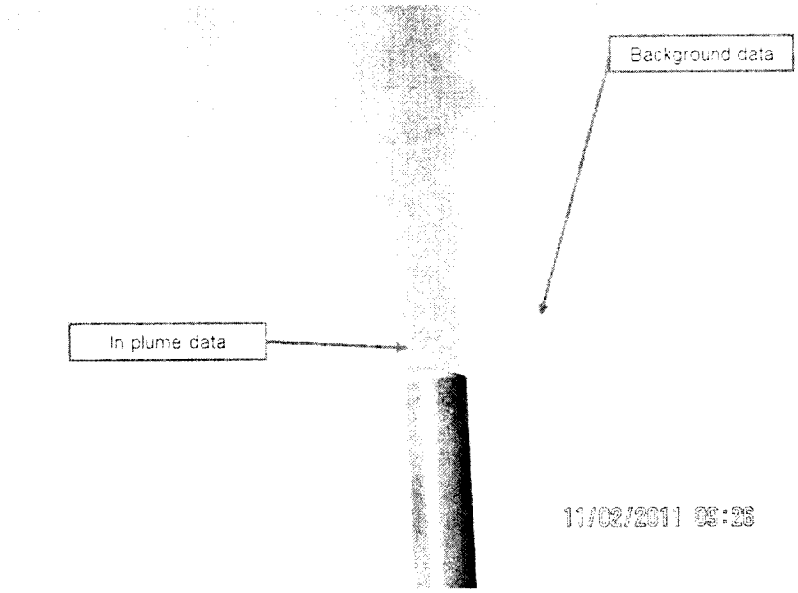


Figure 2. Simple Mode Example Image
[Source: "An Evaluation of a Digital Camera System for Measuring Smoke Plume Opacity", presented by Mr. Bill Gillespie, Virginia Department of Environmental Quality, at the *EPA Measurement Technology Workshop*, January 29, 2013]

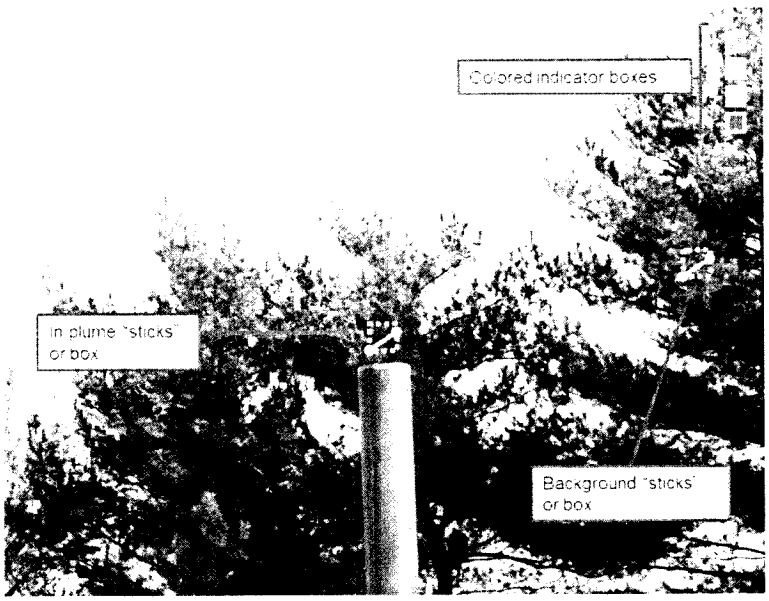


Figure 3. Complex Mode Example Image
[Source: "An Evaluation of a Digital Camera System for Measuring Smoke Plume Opacity", presented by Mr. Bill Gillespie, Virginia Department of Environmental Quality, at the *EPA Measurement Technology Workshop*, January 29, 2013]

2.1.4 Operator Training

Implementing this Protocol relies, in part, on the DCOT operator and the Digital Still Camera operator. Although these operators may be one and the same person, the functions of each job are different – each with its own competency requirements. In addition to meeting the following requirements, the DCOT operator is required to be certified as a Digital Still Camera Operator in accordance with ASTM D7520, Annex A1.10, as described below:

1. To acquire digital images from the Digital Still Camera to determine plume opacity by meeting the requirements specified by the training course for the specified DCOT system.

2. To use and be knowledgeable of the content described in "Principles of Visual Emissions Measurements and Procedures to Evaluate those Emissions Using Digital Camera Optical Technique (DCOT)", as provided in Annex A1, ASTM D7520-13.

3. To perform analysis with the DCOT system by attending a smoke school, acquiring images, and successfully performing analysis on smoke school imagery with the DCOT system.

   NOTE: Maynard personnel will only be required to obtain this certification if Maynard elects not to have Virtual Technology, LLC assess the opacity of the images as part of its SaaS service offering.

As part of its contract with Virtual Technology, LLC, Maynard shall ensure that items 1 and 2 are included in the DCOT system training that is required to be provided by Virtual Technology, which is its DCOT vendor.

The DCOT operator and any other individual that is designated to operate the Digital Still Camera for the purpose of obtaining images for opacity assessment, need to be certified to capture plume and related field data in accordance with Annex A-1.10, ASTM D7520-13, which requires that the candidate demonstrate a mastery of the following:

1. Rules associated with the operation of a Digital Still Camera;
2. Rules associated with plume observations;
3. Required field data supportive of a valid defensible observation; and
4. Expertise in utilizing field equipment.

The required certification will be obtained by successfully completing the respective training offered by Virtual Technology, LLC. The Digital Still Camera operator certification will last no longer than 3.5 years. At or before the expiration of the certification, the operator(s) will be retrained and recertified.

2.2 Night-time Opacity Monitoring – Alternate Approach

Rather than use the primary approach for nighttime opacity monitoring, as detailed in Section 2.1 of this Protocol, Maynard may elect to use an observer who has a then-current certification from the California Air Resources Board for nighttime visible emission evaluation as a contingency in the event that the primary approach is not functioning properly (*e.g.*, due to related hardware and/or software issues, backlighting issues and/or other unforeseen inhibiting factors). This method relies on direct visual observation by a human observer. The observer may either be Maynard personnel or an outside contractor that is properly trained and certified by the California Air Resources Board in conducting nighttime opacity monitoring.

2.3 Day-time Opacity Monitoring – Alternate Approach

Rather than use the primary approach for daytime opacity monitoring, as detailed in Section 2.1 of this Protocol, Maynard may use EPA Method 9 (40 CFR 60, Appendix A-4), which relies on direct visual observation by a qualified observer.

3.0 Modification of Protocol

This Protocol may be modified as a non-material change by written agreement between Maynard and the EPA, as provided under Paragraph 129 of the Consent Decree.

ATTACHMENT 1
DIGITAL CAMERA SPECIFICATIONS

Technical Specifications

Models

System Information

CPU
Flash
RAM

Camera Features

Image Sensor
Maximum Resolution
Lens Type
Focal Length
Aperture
Auto-iris
Field of View

Shutter Time
WDR Technology
Day/Night
Minimum illumination

Pan Speed
Pan Range
Tilt Speed
Tilt Range
Preset Locations
Pan/tilt/zoom
Functionalities

On-board Storage

Video

Compression
Maximum Frame Rate

Maximum Streams
S/N Ratio
Dynamic Range
Video Streaming

Image Settings

Audio

Audio Capability
Compression
Interface

Network

Users
Protocols

Interface
ONVIF

Intelligent Video

Video Motion Detection
Auto-Tracking

Alarm and Event

Alarm Triggers

Alarm Events

General

Connectors

LED Indicator
Power Input

Power Consumption

Dimensions
Weight
Casing

Safety Certifications
Operating Temperature

Warranty

System Requirements

Operating System
Web Browser

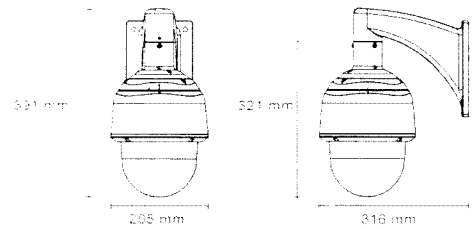
Other Players

Included Accessories

CD

Others

Dimensions



Compatible Accessories

Mounting Kits

AM-116
20 cm pendant pipe

AM-117
40 cm pendant pipe

AM-118
Indoor pendant head

AM-231
Parapet mounting kit

AM-221
Goose neck mounting kit

AM-103
Recessed kit

AM-519
1.5" PT adapter

PoE Kits

AP3001
PoE plus injector

AP-331
High power PoE injector

Power Adapter

AA-341
AC 24V power adapter

Others

AC-212
Smoked cover

AC-111
Vandal-proof transparent cover

AO-001
Combo cable

All specifications are subject to change without notice. Copyright © VIVOTEK INC. All rights reserved.

Distributed by

VIVOTEK

Ver 1.5

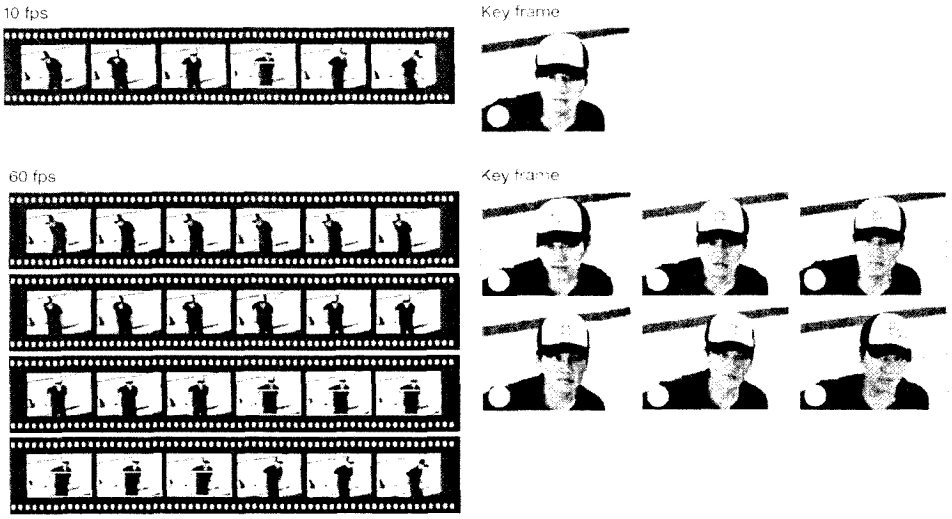
VIVOTEK INC.
[illegible]

VIVOTEK USA
[illegible]

VIVOTEK Europe
[illegible]

60 fps Raises Recognition Accuracy

The VIVOTEK SD8363E is able to transmit 60 fps @ 720p resolution with H.264 compression, whereas a conventional megapixel camera can generally only achieve 10 to 15 fps due to hardware limitations. 60 fps provides a significant advantage as it enables viewing and recording footage at an exceptional frame rate. This feature provides a more complete record of an event and ensures accurate target identification. The more images or frames that can be captured and delivered to a facial recognition database, the more forensic evidence is available for biometric pairing, significantly increasing the level of accuracy.



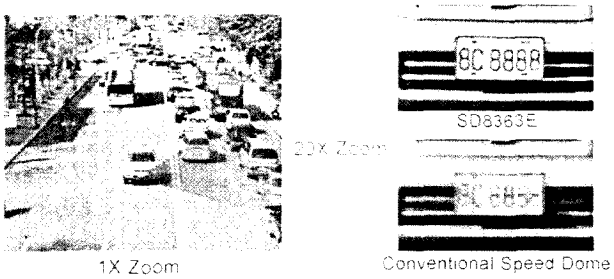
Advanced Mechanism

SD8363E has a pan range of 360° and tilt range of 220°. With the additional 20° tilt range, the SD8363E is able to expand the viewing range to the field above the normal horizontal view. Additionally, the SD8363E is built with QuickPan technology, allowing for 360° endless panning at a speed of 450° per second.

This allows users to quickly direct the camera lens to catch any object of interest in the field of view surrounding the camera.

Zoom Enhancement

Utilizing a 20x optical zoom lens, the SD8363E provides close-up images with 1080p detail and effectively extends the user's viewing distance. Even under limited bandwidth environments, users can take advantage of the VIVOTEK Zoom enhancement feature to obtain image detail as high as 1080p resolution using VGA-level bandwidth.

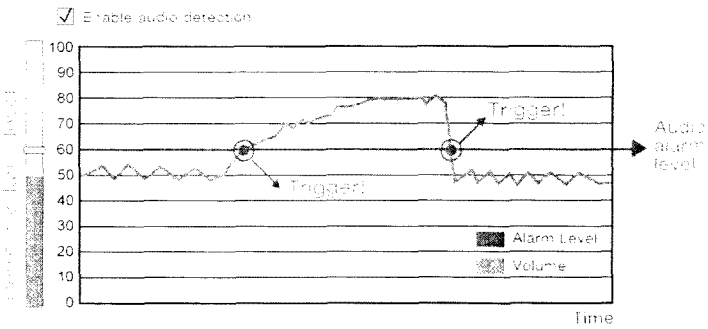


Auto Tracking for Moving Objects

The auto tracking feature provides instantaneous reaction to suspicious moving objects over a wide area before an operator may be aware of activity. Users are able to define the target object size in order to render auto tracking more effectively.

Audio Detection for Instant Alerts

The audio detection feature enables an event trigger when a sudden, unexpected increase or decrease in sound volume occurs so as to alert users of a possible emergency situation.



FOLD on this line and place in shipping pouch with **bar code and delivery address** visible

JOHN REGO
2165863939
JONES DAY
901 LAKESIDE AVENUE
CLEVELAND OH 44114

2 LBS **PAK** **1 OF 1**

SHIP TO:
HONORABLE SCOTT PRUITT
2025644700
ENVIRONMENTAL PROTECTION AGENCY
ROOM 3000
1200 PENNSYLVANIA AVENUE, N.W.
WASHINGTON DC 20004

MD 201 9-83

UPS NEXT DAY AIR **1**
TRACKING #: 1Z 4X4 437 01 9903 1136

BILLING: P/P

Reference No.1: 139357-600002
Reference No.2: JP858259

XOL 17 01 28 NV45 84.0A 01/2017

3/20

David Hunt
(b) (6) [redacted]

March 17, 2017

Director Scott Pruitt
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

RE: In honor of your confirmation to head the EPA

Dear Director Pruitt:

I used to be a climate change adherent. That changed when I came to understand that data was being altered, concealed, and skeptics pointing out uncertainties smeared. I am a purist when it comes to the Scientific Method, and when people talk about "hiding the decline" and actively working to prevent papers that questioned the Holy Writ being published... well, that did it for me. My further research in the intervening years has done nothing but confirm that view: that while climate is a legitimate research topic, the Church of the Holy CO_2 is precisely that – a faith, not a science.

I had commissioned an editorial cartoonist, John Cox, do draw several cartoons for me and my (very) unsuccessful Zazzle store of custom-art products. But... this is a good one, relevant to you, and I hope you enjoy it.

Make America Great Again!

Yours sincerely,

David Hunt

RECEIVED
2017 MAR 20 AM 9:36
OFFICE OF THE
EXECUTIVE SECRETARIAT

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

March 24, 2017

Larry Kemper
(b) (6) [redacted]

Re: Requesting contact information for appropriate EPA department

Dear Mr. Kemper:

Thank you for your inquiry dated March 9, 2017 concerning compliance instructions for sorghum processing facilities in Hawaii. In your request, you asked for contact information for the department that can supply you with the applicable rules and regulations that would affect the permitting and construction of these facilities.

As there are no federal specific regulations applicable to sorghum processing, we are forwarding your request for information to Catherine Lopez, the Engineering Section Supervisor at the Clean Air Branch of the Hawaii Department of Health (DOH), who can best answer your questions on which local rules in Hawaii may affect the permitting and construction of these facilities. You may reach her at (808) 586-4200 or Catherine.lopez@doh.hawaii.gov.

Depending on the size, scale, and processes of your facility, emissions of pollutants may vary. For example, emission factors for Bagasse combustion can be found in Chapter 1.8 of EPA's Compilation of Air Pollutant Emission Factors (AP-42) while emission factors related to sorghum grain elevators can be found in Chapter 9.9.1 of AP-42. See https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emission-factors for more information.

If EPA can assist you further, please contact Khoi Nguyen, of my staff, at (415) 947-4120 or Nguyen.Thien@epa.gov.

Sincerely,

Gerardo C. Rios
Chief, Permits Office
Air Division

cc: Catherine Lopez, Hawaii DOH (by email)

Larry Kemper
[redacted] (b) (6)

March 9, 2017

RECEIVED
2017 MAR 20 PM 1:49
OFFICE OF THE
EXECUTIVE SECRETARIAT

Office of the Administrator
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

re: Requesting contact information for appropriate EPA department

To whom it may concern,

I would appreciate your assistance in directing me to the department that handles compliance instructions for sorghum processing facilities which have a Bagasse and anaerobic digesters. The planned facility is in Hawaii.

Please send me contact information for which department can supply me with EPA rules and regulations which would affect the permitting and construction of such a facility.

Thank you,

Larry O. Kemper

Larry O. Kemper

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 2 7 2017

OFFICE OF WATER

Ms. Madelyn Draftz
(b) (6)

Dear Ms. Draftz:

Thank you for sharing your concerns regarding hydraulic fracturing. We welcome hearing from citizens who care about our environment, and we very much appreciated your thoughts and concerns regarding the protection of our environment from pollution. Despite our environmental challenges ahead, concerned people like you are one of many reasons why we are optimistic about the public and environmental health of our nation and our planet.

The U.S. Environmental Protection Agency's (EPA) Office of Water is responsible for protecting all water bodies as authorized under the Clean Water Act and the Safe Drinking Water Act. The practice of oil and gas drilling (known as hydraulic fracturing), to obtain natural gas for energy, can produce wastewater fluids that may contain oil, which, when not adequately treated, has the potential to enter surface waters. The EPA believes, however, that responsible development of America's shale gas production offers important economic, environmental and energy-security benefits. The agency is working with states and other stakeholders to understand and address potential concerns with hydraulic fracturing so that the public has confidence that natural gas production will proceed in a safe and responsible manner.

To provide you with additional information, I would like to let you know about EPA's efforts regarding the practice of hydraulic fracturing and the protection of the environment. The agency is working on several activities to provide regulatory clarity under existing laws, and is using existing authorities where appropriate to enhance public health and environmental safeguards with regards to hydraulic fracturing activities. For example, the agency released final permitting guidance specific to oil and gas hydraulic-fracturing activities using diesel fuels in February 2014. The guidance identifies regulatory requirements and best practices for hydraulic fracturing when diesel fuels are used in the fracturing fluid.

EPA recently released the final assessment entitled: *Hydraulic Fracturing for Oil and Gas: Impacts from the Hydraulic Fracturing Water Cycle on Drinking Water Resources in the United States (Final Report).* EPA's report advances the scientific understanding of hydraulic fracturing's impact on drinking water resources, and can inform decisions by federal, state, tribal, and local officials; industry; and communities to protect drinking water resources now and in the future. More information about the report can be found on EPA's website at https://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=332990.

In 2015, the agency released a report entitled: *Minimizing and Managing Potential of Injection-Induced Seismicity from Class II Disposal: Practical Approaches*. This report, developed by state and EPA experts, provides background information on induced earthquakes and identifies some tools to help state and federal programs address the problem. More information on this report can be found at https://www.epa.gov/uic/underground-injection-control-national-technical-workgroup-final-issue-papers.

Protecting people and the environment is EPA's mission, but we cannot do this work alone, and that is why we encourage you to stay involved. Just as it takes many drops of water to fill a bucket, the actions of many individuals are necessary to keep our environment clean, safe and healthy. The agency has established a hotline for individuals to report any observed environmental concerns associated with drilling operations. Citizens may call 1-877-919-4EPA or email eyeondrilling@epa.gov.

Again, thank you for sharing your concerns and providing me with an opportunity to let you know about EPA's efforts regarding the practice of hydraulic fracturing and the protection of our environment.

Sincerely,

Stephanie Flaharty
Office of Ground Water and Drinking Water

Administrator Scott Pruitt
Environmental Protection Agency
Office of the Administrator, 1101A
1200 Pennsylvania Ave. N.W.
Washington, D.C. 20460

RECEIVED
2017 MAR 20 PM 1:49
OFFICE OF THE
EXECUTIVE SECRETARIAT

Dear Administrator Scott Pruitt,

I am writing to you in regards to the regulations surrounding the process of hydraulic fracturing. While I understand that the amount of fuel that can be obtained through the means of fracturing shale rock is considerably large, I find that the resulting impacts are greater than the benefits. Therefore, I have some suggestions in regards to regulations that I would appreciate if you took into consideration.

Increasing our oil and gas reserves can provide our country with enough power to be energy independent. Therefore, more jobs are available for Americans and gas prices - and thus, prices of transported goods - are kept low. However, there are many consequences surrounding the process of obtaining these fossil fuels.

Hydraulic fracturing uses millions of gallons of fresh water for each instance of drilling, combined with various chemicals to be pumped into the ground. The kinds of chemicals used in these mixtures are often proprietary information of each company and are not regulated by the EPA. I find this to be a major concern since some of these chemicals have been found to contain harmful properties that can negatively impact human health and can contaminate groundwater supplies. For example, 2-BE has been found in drinking wells near fracking sites and is a potent chemical that can cause spleen damag

To make matters worse, the wastewater left over from fracking is then either injected back into the ground (which has been proven to cause earthquakes), deposited in a surface retention pond where volatile organic compounds can evaporate and cause hazardous air pollution, or is sent to a wastewater treatment facility where the infrastructure typically is not suitable to filter out the unregulated chemicals mixed in with the wastewater.

If our country is using our limited resource of freshwater to only contaminate it with various toxic chemicals, I think that it would be in our best interest to know what those chemicals are and to conduct environmental impact assessments on them, in turn regulating which ones are unacceptable to use. Furthermore, the way that this wastewater is disposed of and treated should further be investigated for improved methods.

Another issue surrounding hydraulic fracturing that I find concerning is the release of methane. Whether or not you believe that our climate is changing due to increased greenhouse gas emissions from anthropogenic causes, it can be agreed upon that the sheer level of methane flares being burned off as a byproduct of fracking is rather wasteful. Especially since methane is a hydrocarbon gas that can be used as a fuel, I think that it would be beneficial if there were regulations put in place enforcing the capture of methane flares. As a result, this could help reduce waste and also minimize the impact of such an incredibly potent greenhouse gas.

While my arguments for regulating hydraulic fracturing have mainly centered around environmental health, I would argue that these regulations could also impact human health as well. By regulating and limiting the chemicals used in hydraulic fracturing endeavors, it will be safer for those who work at or live near fracking sites. If the current presidential administration is concerned with keeping jobs in America, then the jobs that are being created should be free of deadly health risks.

And While I don't think that hydraulic fracturing should be happening at all in the United States, I do understand the push for utilizing alternative energy sources like fracking to keep up with industry and progress. However, I believe that renewable energy could ultimately replace fossil fuels and have the same benefits in regards to job creation and energy independence. It also would be cleaner for the environment and more sustainable to invest in renewable energy. Regardless, the transition to a fully renewable energy infrastructure is not entirely attainable in our country's current state. However, it is a path that we can start on by cracking down harder on fracking operations to keep companies responsible for their waste and responsible for the land they are exploiting, sequentially forging a clearer future.

Ultimately, I am imploring you to rethink the regulations surrounding hydraulic fracturing to improve them for the health of the United States of America. In my opinion, this should involve identifying, assessing, and regulating the chemicals that hydraulic fracking operations

use to reduce human and environmental health risks, finding improved methods for the disposal and treatment of fracking wastewater, and enforcing methods for capturing methane to reduce waste and greenhouse gas emissions. As it is the beginning of a new administration, it is a crucial time for you to set a precedence and make a real difference in the way that this country is effectively run. Thank you for taking the time to read this letter and I sincerely hope that you take my requests into consideration.

Sincerely,

Madelyn Draffz

Chicago, IL

Environmental and Historic Report
Certificate of Service

Pursuant to the requirements of 49 C.F.R. § 1105.7(b) and 49 C.F.R. § 1105.8(c), the undersigned hereby certifies that a copy of the Combined Environmental and Historic Report in Docket No. AB-290 (Sub-No. 393X) was mailed via first class mail on March 13, 2017 to the following parties:

Mayor Tari Renner
City of Bloomington
109 E. Olive Street
Bloomington, IL 61701

Mr. David A. Hales, City Manager
City of Bloomington
109 E. Olive Street
Bloomington, IL 61701

Mr. Bob Henderson, Manager
Village of Mansfield
105 S. Columbia Street
Mansfield, IL 61854

Mr. Bill Wasson, County Administrator
McLean County
115 E. Washington Street
Bloomington, IL 61701

Mr. Randy Jo Keith, County Board Chairman
Piatt County
2804 Shady Rest Road
Monticello, IL 61856

Illinois Department of Natural Resources
15676 State Highway 54
Clinton, IL 61727

Illinois Environmental Protection Agency
Region 4 Office
2125 South First Street
Champaign, IL 61820

Mr. Tom Melius, Regional Director
U.S. Fish and Wildlife Service
Midwest Region
5600 American Blvd., West, Suite 990
Bloomington, MN 55437

Mr. Ivan Dozier, State Conservationist
Illinois Natural Resources Conservation Service
United States Department of Agriculture
2118 W. Park Court
Champaign, IL 61821

Ms. Diane Tecic, Program Director
Illinois Department of Natural Resources
Coastal Management Program Office
106 N. LaSalle Street, Suite S-703
Chicago, IL 60601

United States Army Corps of Engineers
Chicago District
231 S LaSalle Street, Suite 1500
Chicago, IL 60604

Ms. Heidi Brown-McCreery, Director
Illinois Historic Preservation Agency
1 Old State Capitol Plaza
Springfield, IL 62701

Mr. Charlie Stockman
National Park Service
Rivers and Trails Conservation Program
1201 Eye Street NW 9th Floor
Washington, DC 20005

National Geodetic Survey
Geodetic Service Division
Room 9202 NGS/12
1315 East West Highway
Silver Spring, MD 20910

USEPA
Ariel Rios Building
1200 Pennsylvania Avenue NW
Mail Code 1101-A
Washington, DC 20460

RECEIVED
2017 MAR 20 PM 2:58
OFFICE OF THE
EXECUTIVE SECRETARIAT

Laura Hoag

Laura Hoag
March 13, 2017

BEFORE THE
SURFACE TRANSPORTATION BOARD

AB-290 (Sub-No. 393X)

NORFOLK SOUTHERN RAILWAY COMPANY

PROPOSED ABANDONMENT

BETWEEN MILEPOST UM 47.9 AND MILEPOST UM 78.3

IN MANSFIELD AND BLOOMINGTON, ILLINOIS

Combined Environmental and Historic Report

Norfolk Southern Railway Company ("NSR") submits this Combined Environmental and Historic Report pursuant to 49 C.F.R. § 1105.7(e) and 49 C.F.R. § 1105.8(d), respectively, in connection with its proposed abandonment of 30.40 miles of rail line between Milepost UM 47.9 and Milepost UM 78.3 in Mansfield and Bloomington, Illinois.

March 13, 2017

ENVIRONMENTAL REPORT

49 CFR 1105.7(e)(1)

Proposed Action and Alternatives

Describe the proposed action, including commodities transported, the planned disposition (if any) of any rail line and other structures that may be involved, and any possible changes in current operations or maintenance practices. Also describe any reasonable alternatives to the proposed action. Include a readable, detailed map and drawings clearly delineating the project.

RESPONSE: NSR proposes to abandon 30.40 miles of rail line between Mileposts UM 47.9 and UM 78.3 (the "Line") in Mansfield and Bloomington, Illinois. There are no customers served on the Line to be abandoned.

Following abandonment, the Line's rail and related track material will be salvaged. Salvage will consist of removing the rail and track material from the existing roadbed. The contour of the existing roadbed will remain as is, and existing drainage systems will remain intact. When the rail and track material are removed, the contractor will smooth the roadbed to a level surface. No ballast will be removed, and no soil disturbance will occur. No digging or burying of any kind will be permitted. Accordingly, NSR believes that no storm water mitigation measures – including, but not limited to, a National Pollutant Discharge Elimination System permit – will be required. All salvaged steel components will either be reused or sold as scrap. Crossties may be reused in other railroad operations, or they will be disposed of in accordance with applicable federal and state laws and regulations.

The alternative to abandonment is to not abandon the Line and retain the track in place. This alternative is not satisfactory. The railroad would continue to incur opportunity and other holding costs that would need to be covered by non-existent

shippers were the Line to be retained.

A map depicting the Line is attached as **Appendix A**. An example of the railroad's letter to federal, state and local government agencies along with a list of the consulting agencies NSR has contacted is attached as **Appendix B.** Comments received as a result of NSR's written requests for feedback can be found in **Appendix C.**

49 CFR 1105.7(e)(2) Transportation system.

Describe the effects of the proposed action on regional or local transportation systems and patterns. Estimate the amount of traffic (passenger or freight) that will be diverted to other transportation systems or modes as a result of the proposed action.

RESPONSE: Effects of the proposed action on regional or local transportation systems and patterns would be negligible. There is no rail freight or passenger traffic originating or terminating on the Line.

49 CFR 1105.7(e)(3) Land use.

(i) Based on consultation with local and/or regional planning agencies and/or a review of the official planning documents prepared by such agencies, state whether the proposed action is consistent with existing land use plans. Describe any inconsistencies.

RESPONSE: An outline of future land use plans has been requested from the Cities, Counties, and Village, which were asked to comment on the consistency of the proposed abandonment with existing land use plans. The Cities, Counties, and Village support the proposed abandonment. A copy of the Cities, Counties, and Village response letters are attached as part of **Appendix C**.

(ii) Based on consultation with the U.S. Soil Conservation Service, state the effect of the proposed action on any prime agricultural land.

RESPONSE: Consultation was requested from The United States Department of Agriculture Natural Resources Conservation Service ("USDA NRCS"). The USDA NRCS states there is no impact on prime or important farmlands by this project. A copy of the USDA NRCS response letter is attached as part of **Appendix C**

(iii) If the action affects land or water uses within a designated coastal zone, include the coastal zone information required by Sec. 1105.9.

RESPONSE: Consultation was requested from the Illinois Department of Natural Resources, Coastal Management Program Office. No comments have been received.

(iv) If the proposed action is an abandonment state whether or not the right-of-way is suitable for alternative public use under 49 U.S.C. 10906 and explain why.

RESPONSE: The railroad has fee simple interest title to parts of the right-of-way underlying the Line proposed for abandonment; thus, NSR may have a corridor available for redeployment for alternative public use(s).

49 CFR 1105.7(e)(4) Energy.

(i) Describe the effect of the proposed action on transportation of energy resources.

RESPONSE: Development and transportation of energy resources will not be affected by the abandonment.

(ii) Describe the effect of the proposed action on recyclable commodities.

RESPONSE: Movement or recovery of recyclable commodities will not be affected by the abandonment. There is no rail freight or passenger traffic originating or terminating on the Line.

(iii) State whether the proposed action will result in an increase or decrease in overall energy efficiency and explain why.

RESPONSE: The proposed action will not result in any material impact in overall energy efficiency.

(iv) If the proposed action will cause diversions from rail to motor carriage of more than:
(A) 1,000 rail carloads a year; or
(B) An average of 50 rail carloads per mile per year for any part of the affected line, quantify the resulting net change in energy consumption and show the data and methodology used to arrive at the figure given.

RESPONSE: The diversion of traffic to motor carriers will not exceed the thresholds set forth at 49 CFR §1105.7(e)(4) as no diversions will occur. Accordingly, there is no need to produce data on diverted traffic or to quantify the net change in energy consumption.

49 CFR 1105.7(e)(5) Air.

(i) If the proposed action will result in either:
(A) An increase in rail traffic of at least 100 percent (measured in gross ton miles annually) or an increase of at least eight trains a day on any segment of rail line affected by the proposal, or
(B) An increase in rail yard activity of at least 100 percent (measured by carload activity), or
(C) An average increase in truck traffic of more than 10 percent of the average daily traffic or 50 vehicles a day on any affected road segment, quantify the anticipated effect on air emissions.

RESPONSE: The above thresholds will not be exceeded.

(ii) If the proposed action affects a class I or nonattainment area under the Clean Air Act, and will result in either:
(A) An increase in rail traffic of at least 50 percent (measured in gross ton miles annually) or an increase of at least three trains a day on any segment of rail line,
(B) An increase in rail yard activity of at least 20 percent (measured by carload activity), or
(C) An average increase in truck traffic of more than 10 percent of the average daily traffic or 50 vehicles a day on a given road segment, then state whether any expected increased emissions are within the parameters established by the State Implementation Plan.

RESPONSE: The above thresholds will not be exceeded.

(iii) If transportation of ozone depleting materials (such as nitrogen oxide and Freon®) is contemplated, identify: the materials and quantity; the frequency of service; safety practices (including any speed restrictions); the applicant's safety record (to the extent available) on derailments, accidents and spills; contingency plans to deal with accidental spills; and the likelihood of an accidental release of ozone depleting materials

49 CFR 1105.7(e)(8) Biological Resources.

(i) Based on consultation with the U.S. Fish and Wildlife Service, state whether the proposed action is likely to adversely affect endangered or threatened species or areas designated as a critical habitat, and if so, describe the effects.

RESPONSE: The railroad has requested input from the U.S. Fish and Wildlife Service ("USFWS") to ascertain any impacts to surrounding habitats and species. USFWS' website determined there are no critical habitats within the project area. A copy of the USFWS official species list is attached as part of **Appendix C.**

(ii) State whether wildlife sanctuaries or refuges, National or State parks or forests will be affected, and describe any effects.

RESPONSE: The Line does not appear to pass through state parks or forests, national parks or forests, or wildlife sanctuaries. No adverse effects on wildlife sanctuaries, national parks or forests, or state parks or forests are anticipated.

49 CFR 1105.7(e)(9) Water.

(i) Based on consultation with State water quality officials, state whether the proposed action is consistent with applicable Federal, State or local water quality standards. Describe any inconsistencies.

RESPONSE: The railroad does not intend to remove or alter the contour of the roadbed underlying the Line to be abandoned by way of excavation or other ground-disturbance activity. Accordingly, no soils will be disturbed as a result of the proposed abandonment, and no storm water mitigation measures – including, but not limited to, a National Pollutant Discharge Elimination System permit – will be required. There are no plans to undertake in-stream work, or dredge and/or use any fill materials in connection with the proposed abandonment, so, for this reason also, the proposed abandonment will not result in water quality impacts. Consultation has been requested from the

RESPONSE: Abandonment of the involved Line is not expected to produce adverse environmental impacts for the reasons set forth above. Only minimal physical activity may occur as a result of the proposed abandonment, such as removal of rail, ties, and other railroad appurtenances. The railroad will undertake all reasonable mitigation associated with these activities as directed by the Board to assure the abandonment does not produce adverse environmental impacts.

ADDITIONAL INFORMATION

(1) **U.S.G.S. Topographic Map** – Map was furnished to the Illinois Historic Preservation Agency.

(2) **Written Description of Right of Way** – The right-of-way width ranges from 50 feet to 100 feet along the main track centerline. Pursuant to Surface Transportation Board policy, the railroad's right-of-way will constitute the Area of Potential Effect ("APE") for this undertaking.

(3) **Photographs** – There are no structures on the Line.

(4) **Date of Construction of Structures** – Not applicable.

(5) **History of Operations and Changes Contemplated** – The Line is between Mileposts UM 47.9 and UM 78.3 in Mansfield and Bloomington, Illinois.

In 1866, the Danville, Urbana, Bloomington, and Pekin Railroad ("DUBP") was incorporated and began construction of the Line between Danville and Pekin in 1867. In 1869, the DUPB merged with the Indianapolis, Crawfordsville and Danville Railroad to form the Indianapolis, Bloomington and Western Railway which extended the Line to Indianapolis. In 1869, the Line was opened for traffic. In 1879, the Indianapolis, Bloomington and Western Railway went into foreclosure and was reorganized as the Indiana, Bloomington and Western Railway ("IBW"). In 1881, the IBW merged with the Ohio, Indiana and Pacific Railway ("OI&P") with the resulting company keeping the IBW name. In 1887, the IBW went into foreclosure and was reorganized as the Ohio, Indiana and Western Railway ("OI&W") which went into foreclosure in 1889. In 1890, the Line between Pekin and the Illinois state line was sold to the Peoria and Eastern Railway which surrendered operation and control of the railroad to the Cleveland,

Norfolk Southern Railway Company
Proposed Abandonment
Milepost UM 47.9 - UM 78.3
Mansfield - Bloomington, Illinois
Docket No. AB-290 (Sub No.393X)
Normal
Milepost UM 78.3
Merna
Central Illinois Regional Airport at Bloomington-Normal
Bloomington
Elsworth
Arrowsmith
Saybrook
Mermet Lake State Conservation Area
Downs
Le Roy
Foosland
Bellflower
Heyworth
Farmer City
Milepost UM 47.9
Wapella
DELORME
Data use subject to license.
© DeLorme. DeLorme Street Atlas USA® 2011
www.delorme.com
MN (2.9° W)
0 1 2 3 4 5 6 mi
Data Zoom 9-7

Please refer to the above Docket when contacting the STB. Applicable statutes and regulations impose stringent deadlines for processing this action. For this reason your written comments (with a copy to us) would be appreciated within three weeks.

Your comments will be considered by the Board in evaluating the environmental impacts of the contemplated action. In order for us to consider your input prior to filing with the STB, NSR must receive your comments within three weeks. Please provide information to LaWada Poarch by email at LaWada.Poarch@nscorp.com or by mail to:

LaWada Poarch
Abandonments Coordinator
Norfolk Southern Corporation
Strategic Planning Department
Three Commercial Place
Norfolk, VA 23510
(757) 629-2803

Sincerely,

Laura Hoag

Laura Hoag
Director Strategic Planning
Norfolk Southern Railway Company

Attachment

MCRPC

MCLEAN COUNTY REGIONAL PLANNING COMMISSION

115 E. Washington St., M103 • Bloomington, IL 61701-4089
Phone: 309-828-4331 • Fax: 309-827-4773 • wwww.mcplan.org

February 2, 2017

Ms. LaWada Poarch, Abandonments Coordinator
Strategic Planning – 12th floor
Norfolk Southern Corporation
3 Commercial Place
Norfolk, VA 23510

Dear Ms. Poarch,

We are writing to express our support for McLean County to work with the Illinois Department of Natural Resources (IDNR) to negotiate a railbanking agreement for the entire 30.40-mile corridor between Milepost 47.9 and Milepost 78.3 in Mansfield and Bloomington, Illinois. Please find attached a resolution to that effect, adopted February 1, 2017 by the McLean County Regional Planning Commission (MCRPC).

A trail along this right-of-way has long been supported in our community. The McLean County Regional Greenways Plan, prepared by MCRPC and adopted by the City of Bloomington, Town of Normal, and McLean County, identifies the corridor as a Priority 1 Greenway. (See Map 4.2 from the Regional Greenways Plan, attached; the proposed trail along the ROW is labeled "69T.") The Plan notes: "This high-priority greenway would benefit not just the Bloomington-Normal area but also Downs, LeRoy as well as rural residents... It also has the potential for creating interregional connections with other areas of Central Illinois, including Champaign-Urbana... Considerable interest has been expressed by local governments for the acquisition of the right-of-way if and when it becomes available" (p. 61). The corridor is also highlighted as a proposed trail in the McLean County Regional Comprehensive Plan.

In 2003, when Norfolk Southern last proposed abandoning this segment, MCRPC (along with a number of other governmental units) expressed support for IDNR to act as the overall negotiator in securing a railbanking agreement, recognizing the potential to promote tourism, economic development, sustainable transportation, and overall quality of life. Through the attached resolution, MCRPC reaffirms this position.

Please contact Bill Wasson at bill.wasson@mcleancountyil.gov, or me at vpinnamaraju@mcplan.org, if you have any questions or require any additional information.

Sincerely,

P. Vasudha

Vasudha Pinnamaraju
Executive Director, McLean County Regional Planning Commission

MCRPC is the leader for planning tomorrow's McLean County

Mary Jefferson, Chairman • Michael Buragas, Vice Chair • Joseph Cleary • Michael Gorman • Mary Kramp
Glen Ludwig • Carl Olson • Linda Olson • Carl Teichman • Tyler Wrezinski • Mark Wylie

RESOLUTION OF THE McLEAN COUNTY REGIONAL PLANNING COMMISSION SUPPORTING THE RAILBANKING OF NORFOLK & SOUTHERN RAILROAD RIGHT-OF-WAY FROM MANSFIELD, IL TO BLOOMINGTON, IL

WHEREAS, indications are that Norfolk & Southern Railroad will file for abandonment of the railroad right-of-way running from Mansfield, IL to Bloomington, IL in the year 2017, and

WHEREAS, railbanking this railroad corridor preserves greenways, allows for recreational/transportation uses, provides a utility corridor for local governments, and maintains the route for future use as a railway; and

WHEREAS, the railbanking of this corridor has potential to promote tourism, stimulate economic development, provide alternative transportation options, support municipal services and improve the quality of life for communities along and near the corridor; and

WHEREAS, the railroad corridor is an asset to the central Illinois region, passing through three counties and five municipalities; and

WHEREAS, the railroad corridor is identified in the McLean County Regional Greenways Plan as a high priority for greenway and trail development; now, therefore,

BE IT RESOLVED by the McLEAN COUNTY REGIONAL PLANNING COMMISSION as follows:

1) The McLean County Regional Planning Commission supports the efforts of the Illinois Department of Natural Resources to negotiate a rail-banking agreement with the Norfolk & Southern Railroad for the right-of-way from Mansfield, IL to Bloomington, IL.

2) The McLean County Regional Planning Commission supports the Department of Natural Resources Greenways and Trails Division serving as the overall negotiator and securing the interests of the Norfolk & Southern Railroad right-of-way.

3) The McLean County Regional Planning Commission supports the Illinois Department of Natural Resources working jointly with local governments for future recreational trail development and public use of the corridor.

ADOPTED by the McLEAN COUNTY REGIONAL PLANNING COMMISSION this 1st day of February, 2017.

APPROVED:

Mary Jefferson 02/01/2017
Chairman

City of Le Roy Est 1835

Creating Our Past by Investing in Our Future

Ms. LaWada Poarch, Abandonments Coordinator
Strategic Planning – 12th Floor
Norfolk Southern Corporation
3 Commercial Place
Norfolk, VA 23510

Dear Ms. Poarch:

We are in your receipt of a memo dated January 6, 2017 regarding Norfolk Southern Railway Company (NF & S) considering the abandonment of 30.40 miles of rail line between Milepost UM 47.9 and Milepost 78.3 in Mansfield and Bloomington, Illinois.

Please be advised that the City of Le Roy intends to work with the Illinois Department of Natural Resources and other local governmental units to file a Statement of Financial Responsibility in efforts to obtain a Certificate of Interim Use for the entire corridor NF & S is seeking to abandon. During 2001, local governments received and responded to a request for environmental information for purposes of **preparing environmental reports for the proposed abandonment of a line segment of Norfolk Southern line between Mansfield and Bloomington, Illinois.** In communications the City of Le Roy and other governmental units responded to NF & S, providing information concerning **the designation of this right-of-way(ROW) in the McLean County Greenways & Trails Plan and the McLean County Comprehensive Plan** as a priority greenway, with interim use projected for recreational purposes and maintenance for future transportation/public use. Additionally the City of Le Roy expressed concerns over land use problems which have previously been associated with abandoned railroad ROW, when divided into small parcels.

The provisions establishing this ROW as a priority greenway continue to appear in the McLean County Greenways & Trails Plan and the McLean County Comprehensive Plan documents. The concerns with respect to an abandonment with subsequent sale of small parcels and related land use problems has not diminished. Therefore, such abandonment is only consistent with long range plans if the ROW is maintained as a greenway corridor for public use and future transportation utilization.

After the initial response by local governments to the request for information, between August of 2003 and February of 2004, the County Boards of McLean, Dewitt, Piatt Counties and the municipal bodies of the City of Bloomington, Village of Downs, City of LeRoy, Farmer City and Village of Mansfield all approved resolutions of support for rail banking the Railroad ROW for public use and the Illinois Department of Natural Resources acting as the overall negotiator in securing the interests of the Norfolk and Southern Railroad ROW. This is the current position of McLean County.

Should you need additional information or assistance, please feel free to contact me at 309-962-3031 or djenkins@leroy.org

Sincerely,

Dave Jenkins

Dave Jenkins
City Administrator
City of Le Roy, IL

PASSED by the City Council of the City of Le Roy, Illinois upon the motion by Jerry Henson, seconded by Theresa O'Hare,
By a roll call vote on the 1st day of October, 2001, as follows:

ALDERMEN ELECTED 8 ALDERMEN PRESENT 6

Voting Aye:
John Haney, Butch Cook, Jerry Henson, Chad Farischon, Theresa O'Hare, Dawn Thompson

Voting Nay:
None

Absent:
Dave McClelland and Gary Koerner

Abstain:
None

Other:
None

and deposited and filed in the office of the City Clerk in said municipality on the 2nd day of September, 2003.

Sue Marcum, City Clerk of the City of Le Roy, McLean County, Illinois

APPROVED BY the Mayor of the City of Le Roy, Illinois, this 2nd day of September, 2003.

Robert Rice, Mayor of the City of Le Roy, McLean County, Illinois

ATTEST (SEAL)

Sue Marcum, City Clerk of the City of Le Roy,

Village of Downs
211 S. Seminary, PO Box 18
Downs, IL 61736-0018
Voice/Fax: 309-378-3221
Email: Info@VillageOfDowns.org
Website: www.VillageOfDowns.org

Mayor, Village Board and Clerk

President/Mayor	Public Safety/Services/ President Pro Tem	Public Works	Streets	Building	Finance	Parks/Youth Center/Food Pantry	Clerk
Mike James	Maureen Roach	Toby Twyford	Danny Lush	Mary Goveia	Sarah Gassaway	Margaret Keylin	Julie James

February 5, 2017

Ms. LaWada Poarch, Abandonments Coordinator
Strategic Planning – 12th Floor
Norfolk Southern Corporation
3 Commercial Place
Norfolk, VA 23510

Dear Ms. Poarch:

We are in your receipt of a memo dated January 6, 2017 regarding Norfolk Southern Railway Company (NF & S) considering the abandonment of 30.40 miles of rail line between Milepost UM 47.9 and Milepost 78.3 in Mansfield and Bloomington, Illinois.

Please be advised that Village of Downs intends to work with the Illinois Department of Natural Resources and other local governmental units to file a Statement of Financial Responsibility in efforts to obtain a Certificate of Interim Use for the entire corridor NF & S is seeking to abandon. During 2001, local governments received and responded to a request for environmental information for purposes of **preparing environmental reports for the proposed abandonment of a line segment of Norfolk Southern line between Mansfield and Bloomington, Illinois.** In communications, the Village of Downs and other governmental units responded to NF & S, providing information concerning **the designation of this right-of-way(ROW) in the Village of Downs Strategic Plan, McLean County Greeenways & Trails Planning and Comprehensive Plan** as a priority greenway, with interim use projected for recreational purposes, public utilities and maintenance for future transportation/public use. Additionally, the Village of Downs expressed concerns over land use problems which have previously been associated with abandoned railroad ROW, when divided into small parcels.

The provisions establishing this ROW as a priority greenway continue to appear in the Village of Downs Strategic Plan and McLean County Greenways & Trails Plans and Comprehensive Plan. The concerns with respect to an abandonment with subsequent sale of small parcels and related land use problems has not diminished. Therefore, such abandonment is only consistent with long range plans if the ROW is maintained as a greenway corridor for public use and future transportation utilization.

After the initial response by local governments to the request for information, between August of 2003 and February of 2004, the County Boards of McLean, Dewitt, Piatt Counties and the municipal bodies of the City of Bloomington, Village of Downs, City of LeRoy, Farmer City and Village of Mansfield all approved resolutions of support for rail banking the Railroad ROW for public use and the Illinois Department of Natural Resources acting as the overall negotiator in securing the interests of the Norfolk and Southern Railroad ROW. This is the current position of the Village of Downs.

Should you need additional information or assistance, please feel free to contact me at Mayor@VillageOfDowns.org, 309-830-7374 or 211 S. Seminary St, PO Box 18, Downs, IL 61736.

Sincerely,

Michael James, Village President
Village of Downs, IL

Cc: Village Board of Trustees,
Village Clerk

Other Positions and Committee Chairs

Police Chief	Public Works Superintendent	Treasurer/Budget Officer/TIF Administrator	Zoning Enforcement	Zoning Board Chairperson
Josh Dingler	Kevin Whitehouse	Julie Bakewell	Lyndall Cuba	Linda Bowman

USDA
United States Department of Agriculture

January 19, 2017

LaWada Poarch, Abandonments Coordinator
Strategic Planning – 12th Floor
Norfolk Southern Corporation
3 Commercial Place
Norfolk, VA 23510

RE: Docket number AB-290 (Sub-No. 393X) Norfolk Southern Railway Company – Abandonment - in Mansfield and Bloomington, Illinois

Dear Ms. Poarch:

We have reviewed the proposed project as requested.

Because the proposed track abandonment would be confined to an existing rail corridor in an urban area, it will have no impact on prime or important farmlands.

Sincerely,

IVAN N. DOZIER
State Conservationist

cc:
Laura Hoag, Director, Strategic Planning, Norfolk Southern Corporation, Norfolk, Virginia
Stewart Smith, Assistant State Conservationist, USDA-NRCS, Charleston, Illinois
Kent Bohnhoff, District Conservationist, USDA-NRCS, Decatur, Illinois
Eric McTaggart, District Conservationist, USDA-NRCS, Pontiac, Illinois
Tim Prescott, Resource Inventory Specialist, USDA-NRCS, Champaign, Illinois
Ron Collman, State Soil Scientist, USDA-NRCS, Champaign, Illinois

Natural Resources Conservation Service
2118 W. Park Court, Champaign, Illinois 61821
Voice (217) 353-6600 – FAX2mail (855) 668-0602

Helping People Help The Land.

An Equal Opportunity Provider and Employer

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Rock Island Ecological Services Field Office
ROCK ISLAND ECOLOGICAL SERVICES FIELD OFFICE, 1511 47TH AVE
MOLINE, IL 61265
PHONE: (309)757-5800 FAX: (309)757-5807

Consultation Code: 03E18000-2017-SLI-0320 February 13, 2017
Event Code: 03E18000-2017-E-00516
Project Name: Mansfield to Bloomington, IL

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The attached species list identifies any federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat if present within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the Service if they determine their project "may affect" listed species or critical habitat.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally. You may verify the list by visiting the ECOS-IPaC website http://ecos.fws.gov/ipac/ at regular intervals during project planning and implementation and completing the same process you used to receive the attached list. As an alternative, you may contact this Ecological Services Field Office for updates.

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at - http://www.fws.gov/midwest/endangered/section7/s7process/index.html. This website contains step-by-step instructions which will help you determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process.

United States Department of Interior
Fish and Wildlife Service

Project name: Mansfield to Bloomington, IL

Endangered Species Act Species List

There are a total of 3 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Flowering Plants	**Status**	**Has Critical Habitat**	**Condition(s)**
Eastern Prairie Fringed orchid *(Platanthera leucophaea)* Population: Wherever found	Threatened		
Mammals			
Indiana bat *(Myotis sodalis)* Population: Wherever found	Endangered		
Northern long-eared Bat *(Myotis septentrionalis)* Population: Wherever found	Threatened		

United States Department of Interior
Fish and Wildlife Service

Project name: Mansfield to Bloomington, IL

Critical habitats that lie within your project area

There are no critical habitats within your project area.

MAR 2 0

Norfolk Southern Corporation
Three Commercial Place
Norfolk, VA 23510

USEPA
Ariel Rios Building
Mail Code 1101-a
1200 Pennsylvania Ave NW
Washington, DC 20460-0002

Return Requested

FCF2026823

MARCH 14, 2017

DEAR MR. PRUITT,

CONGRATULATIONS ON BECOMING THE EPA'S NEW ADMINISTRATOR!

BASED ON YOUR GREAT WORK ON THE ILLINOIS RIVER, AND ON THE WATER RIGHTS SETTLEMENT BETWEEN OKLAHOMA, OKLAHOMA CITY, & CHICKASAW TRIBAL NATIONS TO PRESERVE THE ECOSYSTEMS OF WATER BODIES ON NATIVE LANDS, YOU SEEM VERY QUALIFIED FOR THE JOB.

I HOPE & PRAY THAT YOU DO SOMETHING ABOUT THE ONGOING WEST DALLAS GENOCIDE

SINCERELY,

Richard

Richard P. Sheridan, P.E., N.Y.
Professional Engineer, New York
(b) (6)
(b) (6)

RECEIVED
2017 MAR 20 PM 3:21
OFFICE OF THE
EXECUTIVE SECRETARIAT

March 14, 2017

Mr. Ken Paxton
Texas Attorney General
P.O. Box 12548
Austin, Texas 78211-25458

Subject: **A Call for A Investigation of the Biggest Case of Environmental Racism in Dallas History. Over 10,000 Thousand Black People Have Died, and Thousands are Now Sick and Dying of Lead Poisoning.**

Dear Mr. Paxton,

I am a licensed professional engineer with a Masters' Degree in Environmental Engineering (1970). One of my major projects was to manage the investigation and cleanup of a 23 acre General Electric transformer repair facility which was significantly contaminated with PCBs. At the time, this project was all over the local San Francisco news. I am starting off this letter with some of my credentials to establish some credibility with you. I am not just an ill-informed, knee-jerk reaction person, ready to condemn government at any chance I get.

I have been involved in my "discovery" of the consequences of the West Dallas RSR lead smelter for about 6 years. I have given speeches to both the Dallas City Council and the Dallas County Commissioners' Court in their public meetings numerous times. Essentially all of my speeches have fallen on deaf ears, probably because of the corruption in this case, and the known behind the scenes payoffs require such silence.

As a consequence of my " exhaustion of remedies", I am now contacting your office. I've attached the speech that I just gave to the Commissioners' Court, with backup information. I believe that the information which I have provided you gives a good summary of the status of this Superfund project.

In the backup material there is a list of 16 people who have spoken before the Dallas City Council, and some before the Commissioners' Court. Also, I personally know the following men who are recognized experts on what has been going on in West Dallas, having experienced the deaths of family and friends from lead poisoning:

Pastor William Collins – 832-229-4309
Louis Sepulveda – 214-330-7947
(Former Justice of the Peace)
William Hopkins -214-650-9047

You may question why haven't I contacted the EPA on this matter. I believe that such a question would wold be answered with this quote:

"The vast majority of administrative complaints received by the EPA are either rejected or dismissed. An in-depth investigation by the Center for Public Integrity found that in nearly 300 complaints filed by communities of color, the EPA never once made a formal finding of a civil rights violation. On average, it takes the EPA's office of Civil Rights 350 days to decide on whether to investigate a case." THE HILL, January 25, 2016

I have estimated that every day that those poisoned by lead do not receive health care results in a death, and these deaths have been occurring for over 40 years. That's about 14,000 total deaths. I hope and pray that you soon find out about the serious nature, the life and death nature of this situation, and your staff begins an investigation as soon as possible. Certainly, making some phone calls will be the quickest way to find out what is going on.

Thank you for your attention to this matter, and for your great service to the State of Texas.

Sincerely yours,

Richard P. Sheridan

Attachments

cc. Scott Pruitt, EPA Administrator
Samuel Coleman, Region 6 EPA Administrator
Dr, Elba Garcia, Dallas County Commissioner w/o attachments
Zachery Thompson, Director, Dallas County Health and Human Services w/o attachments
Louis Sepulveda, Former Justice of the Peace
Pastor William Collins
William Hopkins

DALLAS COUNTY'S WEST DALLAS RSR LEAD SMELTER SUPERFUND RESPONSIBILITIES.

Presented to the Dallas County Commissioners' Court by Richard P, Sheridan, P.E., N.Y – A 14 Year Dallas Activist March 7, 2017

For nearly 20 years our town crier William Hopkins has been going to City Hall, and coming to the Commissioners' Court to say. *"PEOPLE ARE DYING IN WEST DALLAS!!!"* . Mr. Hopkins has not been alone in this work. I've attached a list of 16 other speakers who have also spoken at city hall and here over the years.

There is no way that I can communicate in 3 minutes all of the details of the BIGGEST CASE OF ENVIRONMENTAL RACISM in Dallas history. Therefore, I've attached a speech that I gave to this court in July, 2014. There is no question in my mind, with a Masters' Degree in Environmental Engineering, that Mr. Hopkins is right, that many, many people are still dying from the lead spewed in the air in West Dallas for over 50 years.

Based on all of the information that is available, the Environmental Protection Agency has not nearly addressed the public health aspects of the RSR Superfund site, focusing almost totally on the material, on the lead contaminated soils. However, even in that area, the EPA has failed miserably. In December, 2012, the Dallas Morning News reported that about 1/3rd of the soils in West Dallas still had unacceptable levels of lead. At a meeting in West Dallas over a year ago an EPA representative was heard saying that if a resident wants their soils tested for lead, all they had to do was to contact the EPA. Now that's what I call action...NOT!!! There are still many children...black, brown, and white(see the picture of the boy with unacceptable levels of lead in his blood)...playing in their backyards with unacceptable levels of lead. Why won't the EPA be proactive, and go back and test the soils of every home in West Dallas? It is because some in our federal government value money more than human lives? Or is it because of RACISM, as most of the victims are black?

If the EPA has abandoned its responsibility in addressing the public health aspects of the RSR Superfund site, then the question is: DOES DALLAS COUNTY HAVE ANY RESPONSIBILITY? Does the county have a legal responsibility? Certainly there is a moral responsibility, according to the Hippocratic Oath, to help save the lives of the approximate 12,000 now dying of lead poisoning in West Dallas. If Dallas County decides to take the high road, and not shirk from its responsibility in this matter, then here's a suggested approach:

1. After the county confirms the ongoing sicknesses from lead poisoning, then the county contacts the EPA and demands that they address the public health aspects of the RSR Superfund site.
2. If they refuse, than the county would conduct an epidemiological study of the West Dallas area. In this study the MORTALITY RATE would be determined. As an example, my simple calculation found that West Dallas has a mortality rate of about 20 deaths per 1000 population. The average national mortality rate is about 8 deaths per 1000 population.
3. Once it is found that West Dallas has an unusually high mortality rate, the next step would be to measure the lead content in the bones of the people who are manifesting the various symptoms associated with lead poisoning. Lead testing of the blood is virtually useless, since the lead that may have been in the blood is virtually gone in about 2 months, because about 90% of the lead that once was in the blood is absorbed by the bones. The lead is then slowly released back into the blood over the years, with the subsequent manifestation of the associated diseases.
4. The last step is to treat all those who have been found to have unacceptable levels of lead in their bones. The most effective treatment is chelation therapy which involves the introduction of either man-made chemicals, or natural remedies into the blood stream.

Finally, who is going to pay for the total cost of this work? To me the answer is very obvious...THE EPA MUST PAY FOR IT!!! Since EPA has been derelict in its responsibility in not completing the public health aspects of this Superfund site, it is certainly very appropriate, and just that they pay for all costs.

I pray that Dallas County takes the right and moral action to help save the lives of those now dying of lead poisoning.

CITY OF DALLAS
CITY COUNCIL MEETING
OPEN MICROPHONE
PUBLIC APPEARANCE LIST
APRIL 18, 2012

	SPEAKER NAME	RESIDENT ADDRESS	DAY TIME TELEPHONE	NON-RESIDENT	COUNCIL DISTRICT	SUBJECT AGENDA/ADDENDUM ITEM NO.	REPRESENTING
	BEGIN - OPEN MICROPHONE						
1	Trina Triche	1818 Corsicana St.	(not provided)		2	Government	
2	Phyllis Guests	7640 Greenway Blvd.	214-902-0257		14	Gas drilling in the City of Dallas	
3	Sandra Crenshaw	(address not provided)	214-498-5298		8	Refusal to meet with black activists	
4	Shane Shipman	1818 Corsicana St.	214-267-8852		2	Break down of the system; The Bridge and Housing	
5	Archie Thomas	4045 Wind River Dr.	214-371-6312		4	Crime victims compensation/West Dallas lead	Clean Organization
	ADDITIONAL - OPEN MICROPHONE						
1	Otis Fagan	2247 Scotland Dr.	214-374-2088		4	City paid healthcare settlement	Clean for Environmental Justice
2	Marian Pegram	4845 Hatcher St.	214-565-0660		7	Public healthcare and welfare programs	
3	Octavia Grigsby	1225 Taperwicke Dr.	469-643-9677		5	City paid healthcare settlement	Clean Organization
4	Linda Grigsby	1225 Taperwicke Dr.	469-643-9677		5	City paid healthcare settlement	Clean Organization
5	Johnnie Shaw	4255 Wiley College Dr.	972-225-3438		8	Lead problems in West Dallas	
6	Jean High	2815 Twyman Ave.	214-587-4436		7	West Dallas lead	Clean Inc.
7	Linden Joyce Lewis	7637 Ryan Ridge Dr.	972-224-0985		8	West Dallas lead	Clean Inc.
8	Jefferson Wigfall	3030 N. Hampton Rd.	214-694-0954		3	Lead	
9	Margaret Cline	3030 N. Hampton Rd.	214-694-0954		3	Lead	
10	Roberta Moore	(not provided)	(not provided)		N/A	Abuse	
11	Curtis Jones	P.O. Box 227095	214-663-1987		N/A	EPA; problems from lead plant in West Dallas	
12	Billy Walker	1114 San Miguel Dr.	214-924-1701	Duncanville, TX		Health	
13	Sterling McCoy	2420 Rimrock Trl.	972-222-9085	Mesquite, TX		City paid healthcare	Clean for Environmental Justice
14	Robert E. Jones	4418 Ambassador Way	214-763-0876	Balch Springs, TX		Lead; City paid healthcare - West Dallas	Clean for Environmental Justice
15	Shirlene Call	1001 Kingston Dr.	469-464-4248	Lewisville, TX		Lead	Clean Environment
16	Howard Call	1001 Kingston Dr.	469-464-4248	Lewisville, TX		Lead	Clean
	END - OPEN MICROPHONE						
	No Requests						
	30 DAYS - OPEN MICROPHONE						
1	Ozumba Lnuk-X	4106 Vineyard Dr.	214-329-7082		3	"?"	GOD
2	Richard P. Sheridan	3022 Forest Ln.	972-815-7570		13	Disgraceful conduct	
3	LaKesha Johnson	1716 Chattanooga Pl.	214-962-6705		2	Arlington Park	
4	LaKolya London	1716 Chattanooga Pl.	214-962-4997		2	Education/childrens' safety	
	CANCELLED						
	No Requests						

Dog's death signaled trouble

Mona Reeder/Staff Photographer

Davidlee Ramos, 9, recently tested at a lead level of 5 in his blood, which has been linked to health problems. He was diagnosed with autism in May.

In searching for cause, mother learns of son's lead exposure

By VALERIE WIGGLESWORTH
Staff Writer
vwigglesworth@dallasnews.com

Maggie Ramos was 10 when her family moved into the house on

bull. Leila was a stray who liked to dig holes to keep cool in the summer.

"The next thing you know, she got sick and was bleeding," Ramos said.

dren.

With those test results in hand, Ramos went to her family doctor to have her 9-year-old son, Davidlee,

who have been exposed.

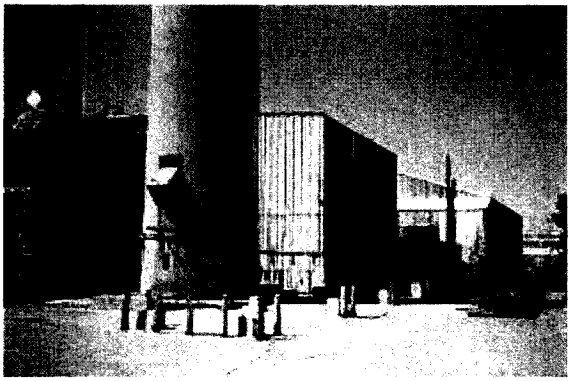
The state of Texas recommends that children living in certain ZIP codes at risk for lead poisoning be

other variables exist.

West Dallas is home for Ramos. She grew up there. Her aunt lives next door. Her parents are just

West Dallas Lead Pollution Victims Still Seeking Justice All These Years Later

By Alex Copeland Wed., Feb. 23 2011 at 10:35 AM
Dallas Observer



The old RSR Corporation Lead Smelter, which contaminated some 14 surrounding miles

Late last month, West Dallas activist Otis Fagan turned up at City Hall backed by 20 or so other members of a group he calls the Clean Association for Environmental Justice, asking the city council to intervene on their behalf and help them get medical benefits he said they're guaranteed by a court decision years ago over pollution from the old West Dallas RSR lead smelter.

"The survivors are here because we have actual documentation the court had ordered for us to get medical treatment, and we have not received that," Fagan said. The activists punctuated the point by holding up copies of the court order that guarantees them medical treatment and blood screening.

For more 60 years, the RSR lead smelter in West Dallas polluted the surrounding community and sickened its residents. Lawsuits closed the smelter in the '80s, initiated a clean-up of the area in the '90s and guaranteed medical care for its victims, but years later people are still suffering from the after effects of lead poisoning and the mandate to provide care to its victims was never enforced.

Blood tests used to detect lead in the bloodstream were provided by the RSR Corporation, but Fagan says that is a far cry from the medical screenings and compensation guaranteed by the court order.

"Parkland will give them treatment, but will not pay their bills," Fagan said at the City Council meeting. "It's not right for them to have to pay the bill for someone else's contamination that was forced upon them."

Mayor Pro Tem Dwaine Caraway said he was making note of the group's repeated efforts and helped them schedule a meeting with City Attorney Tom Perkins. "You're being heard, but now we need to get you some action," Caraway told them at the meeting.

Since then, Fagan tells Unfair Park, his group has finally made a "modest impression with Perkins and the council," after two years of attending council meetings en masse.

"We have been petitioning the city for quite some time to assist us in getting medical treatment," Fagan says. "We've had nothing but difficulty in getting our point across that we are sick and dying from the exposure."

There is no official statistic for the number of deaths associated with the West Dallas lead contamination, but according to Fagan there have been as many as 11,000 deaths over a span of decades.

"As a young boy growing up in Dallas, ambulances ran day and night hauling bodies," Fagan recalls.

Fagan says that birth defects and illness caused by the contamination were common, though lead poisoning was rarely listed as a cause because at the time toxicology tests were rare and medical examinations were shallow.

COMMENTS:

Jim Schermbeck Feb 23, 2011

West Dallas was, and remains the clearest local example of racism creating a homegrown environmental apartheid. Public housing right across the street from one of the largest lead smelters in the state, the lead-contaminated waste from this facility hauled off in trucks that dumped it illegally in random vacant lots throughout the low-income neighborhood, and heavy industry attracting other polluting heavy industry (a WR Grace plant just down the street dealt in asbestos-contaminated Vermiculite). Not to mention the low-wage, non-unionized employees of these facilities who literally carried the contamination home with them to their families.

West Dallas is filled with the walking wounded of this tragedy. They deserve so much more than what they're even asking for, which, considering the abuse, seems so little indeed.

One correction. It wasn't a lawsuit that resulted in the RSR smelter site being named a federal Superfund Site and eventually cleaned-up. It was good, old-fashioned community organizing by the residents themselves. They tested their own soil and attics and found high levels of lead almost decade after the smelter had closed. They held press conferences and protests. That brought official attention from EPA and the state, which had walked away from the facility. As is so often the case in West Dallas, it was a Do-It-Yourself project.

This is part of the 'collar of poison' surrounding Dallas. Frisco's lead, this crap, potential gas drilling, dirty air(DFW is not in containment) The City Council continues to give us all 'hand jobs'. When is someone going to get with the program and demand action? Welcome to Dal-troit.

Williejcollins Jan 18, 2012

My name is Willie J. Collins. Our family lived in West Dallas since 1934. I had 8 brothers and sisters. My dad and brother died from cancer. I have one sister with Cancer currently. All of us suffer with bronchial problems. I came to Dallas last year And got Dallas School records and sent to some person who was representing all Persons who lived in the West Dallas area. If anyone can get me the name of the law firm who was working out case, please email me at [redacted] (b) (6) n Thanks So Much

JRCALDWELLSR Apr 27, 2011

I WAS RAISED IN THE PROJECTS ON RUPERT STREET AND THE SMELL DAY AND NIGHT WAS TERRIBLE HEADACHES FOOD DID NOT TASTE RIGHT BREATHING PROBLEMS ASTHMA SHORT OF BREATH COULD NOT PLAY SPORTS EITHER AT SCHOOL OR AT HOME RUBBEROID WAS JUST AS BAD I AM IN MY 50'S NOW I CAME INTO THE GEORGE LOVING PROJECT WHEN I WAS 10 YEARS OLD

The West Dallas RSR Lead Smelter Superfund Site July 1, 2014

A Call for Parkland Hospital Bone Testing of those Sick and Dying from Lead Poisoning

Presented to the Dallas County Commissioners CT by Richard P. Sheridan, P. E., N.Y. Professional Engineer, New York EXTREME Gadfly and Activist

---

I have come to the following conclusions, and recommendation after discussions over the past two years with community activists like Louis Sepulveda, Otis Fagan, Diane Smith, and William Hopkins, and listening to over 40 people who have come before the Dallas City Council, all advocates for justice to those still "allegedly" suffering the ill health effects of lead poisoning, and after researching the effects of lead poisoning on plant workers, and surrounding communities in other areas in the United States.

1. Since lead has been found to have some major public health detrimental effects in our country in the 1920s, local, state, and the federal government at times have been found to be complicit with the polluting industry to cover-up the detrimental effects, delay enforcement, or ignore their responsibility to enforce clear regulatory requirements. Some of these cases include the addition of lead to gasoline, lead in paint, lead contamination from the largest lead smelting plant in the United States, and Dallas RSR lead smelter.

2. In the landmark tetraethyl lead case in Elizabeth, New Jersey in the 1920s, it was found that the workers exposed to the lead fumes suffered dementia, memory loss, and became highly irritable. The plant became known as THE "LOONY GAS BUILDING", as in 'lunatic" In one dramatic incident of lead poisoning it took 4 men to put a lead poisoned man into a strait jacket. New Jersey ordered Standard Oil to shut down the plant, and New York banned lead from being put in gasoline, but Standard Oil said that the plant's operations were harmless to its workers, and to the public. The result of the work of the New York medical examiner Dr. Norris Getler found high levels of lead in the brain and bone of the plant's workers. However, Standard Oil's government lobbying stopped the plants' shut-down, stopped New York's ban, and stopped the removal of lead from gasoline until the 1980s when lead was finally removed from gasoline. Removing lead from gasoline has improved the average IQ level of American children. It is considered a major public health triumph.

3. It took about 20 years for the residents of the community surrounding the largest lead smelter in the nation, the Doe Run plant in Herculean, Missouri, to uncover what the plant's air emissions was doing to the people, and the land. The EPA, state, and city officials either refused to do anything, or stonewalled the complaints. Then, in 1999, a major breakthrough occurred. The residents began to have the blood levels of children tested, and the lead content of soils tested. As a result of the citizen's exposure, the plant installed air pollution control systems, they initiated a street sweeping program, and many peoples' homes were purchased.

4. The West Dallas projects, whose mostly Black residents were most negatively effected by the RSRs lead air pollution emissions, were regarded as some of the worst projects in the nation, being crime ridden, and poorly maintained. As reported by th e Dallas Morning News. a federal lawsuit resulted in black families being moved out and integrated into white communities, and the barrack-style housing was replaced with apartments, townhomes, and single family homes. This incidence of intentional segregation, and community degradation goes hand-in-hand with the treatment of these minority residents in their continued 30 year pursuit of health care and compensation for all the suffering they have endured. Jim Schermbeck, a well known environmental activist with Downwinders at Risk, who played a major part in stopping Gas Fracking in Dallas, has stated *"West Dallas was, and remains the clearest example of racism creating a homegrown environmental apartheid."* Louis Sepulveda, a former Justice of the Peace, and who received a National award for his many years of work in cleaning up West Dallas lead contamination, called the West Dallas situation, *"Environmental racism."*

5. My over 11 year as an activist shows me that Dallas is a very racist city, just like the state of Texas is very racist. In so many ways Texas (Dallas) ranks worst or among the worst in the nation in the areas of our human condition. In terms of industrial pollution, Texas ranks the worse state in the United States. It was no surprise to many that the local head of the EPA was forced to resign because of his stated intent to come down hard on industrial polluters. Dallas school system, its homeless condition, the blatant poverty in South Dallas, Dallas being a major pipeline to the State's 2nd largest in the nation prison system, the poor physical conditions in West Dallas just reported by the Dallas Morning News, the Dallas Housing/HUD scandal, etc. are all evidence of Dallas' a racist culture,

6. The Dallas Morning published a 3 part feature article in December, 2012, concerning the remaining concerns over both lead soil contamination, and the poor health of many West Dallas residents. The article documented the fact that there are still lead contaminated sites in West Dallas, and there have been many, many complaints over at least a 15 year period by public speakers to the different mayors and city council members about their and family members ongoing sicknesses and deaths from lead poisoning. My friend Gwain Wooten, who died a year ago, was a many year speaker. William Hopkins, whose father and other family members have died from lead poisoning, has been Dallas "TOWN CRIER" over the past 14 years, keeping the message alive at City Hall alive that "People are dying of lead in West Dallas", and calling for help.

7. As reported by the News, the only "legal" settlements to residents occurred in 1985 and 1995, when more than $35 million was awarded to 954 children harmed by lead poisoning. What about the near, or over 20,000 West Dallas residents exposed to lead poisoning over the 50 years of exposure? Otis Fagan claims that about 11,000 have died, and about 15,000 people are now sick and dying from lead poisoning. It's been reported by the Morning News that some cancers in men in West Dallas are significantly higher than the national average.

8. The most positive, in fact the only proof of long term, chronic lead poisoning is testing the human bone for lead content. I'm amazed that this has virtually never been mentioned in any of the documents or news items about West Dallas lead poisoning health issues that I've reviewed, except in the December 2012 Dallas Morning News article where it was stated by a recognized expert on lead toxocology that "The problem with lead is it is stored in our bones and stays with us for the rest of our lives." Later in life the bone lead will be released from the bone, causing its ill health effects on various bodily organs.

Recommendation:

To resolve the claims of thousands of people still suffering from lead poisoning, to stop the suffering, and to save lives, Dallas County's Parkland Hospital must perform lead testing of the bones of a significant sampling of those who claim to be badly affected by lead poisoning. This work should have been performed by the EPA, the federal agency still responsible for the RSR Superfund site. For some reason the EPA has virtually ignored the public health aspects of the extensive West Dallas lead contamination, focusing solely on lead soil contamination. Whatever cost Dallas County/Parkland bears in this important work will be recovered from the EPA and the Federal Government. There is a known correlation between increased bone lead content and various human ailments, and this testing will either confirm or deny the claims of lead health related diseases and deaths. X-Ray fluoresence is an accepted, commonly used technology to test for lead in human bones. I've attached various speeches and a letter I've written to Robert F. Kennedy Jr on the subject of the RSR West Dallas lead contamination Superfund site, all which called for an investigation.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

MAR 28 2017

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

Mr. Barry Meyers
(b) (6)

Dear Mr. Meyers,

Thank you for your March 20, 2017, letter highlighting your concerns about the 2015 Standards of Performance for new Residential Wood Heaters. As you pointed out, wood continues to be a low cost solution for many to heat their homes. As a result, residential wood smoke emissions have become a significant air pollution problem and human health issue in a number of areas across the country. These emissions occur in many neighborhoods across the country, and impact people in their homes. To the extent that children and other sensitive populations are particularly susceptible to asthma, and that minority populations and low-income populations are more vulnerable, this rule will significantly reduce the pollutants that adversely affect their health. Therefore, the Agency will continue to focus on (1) educating the public on using the right wood to heat the right way and (2) reducing emissions from wood heating appliances by promoting the development of improved technology.

We worked closely with manufacturers and other industry leaders when crafting the final residential wood heater rule. The 2015 standards were the first update to the emission limits for new wood heaters in 27 years. Potential added costs to customers was a big consideration as we crafted this rule. Despite potential cost increases for the purchase price of some new heating appliances, the overall public benefits of this rule vastly outweigh the costs, with every dollar in additional cost producing more than $100 in public benefit. Please note that 85 percent of existing woodstoves and hydronic heaters met the 2015 emission limits before this rule went into effect and some models are already meeting Step 2 of the NSPS. So for those stoves, there should only be minimal cost increases to the purchase price.

Thank you for your correspondence. I hope you find this information useful. If you have additional questions, please contact Amanda Aldridge on my staff at (919) 541-5268 or at aldridge.amanda@epa.gov.

Sincerely,

Erica Roberts

Erica Roberts
Acting Division Director
Outreach and Information Division
Office of Air Quality Planning and Standards
Research Triangle Park, NC

Meyers, Barry

Dear EPA Administrator Pruitt:
First off congradulations to you and the new administration.
Looks like a top-notch cabinet.

Anyway, due to one poor regulation implemented 1/1/2016, I will not be able to replace my wood burning outdoor stove when it wears out. I have a Woodmaster stove manufactured in northern Minnesota. I checked with the manufacturer and the new model upgraded stoves are roughly 40% more.

Many of us in rural America depend on wood to heat our homes. I use only oaks that have died. They would go to waste otherwise.

Please look at rolling back this "clean air" regulation.
It is hurting homeowners, the stove manufacturer and Heating and Cooling businesses that install these.

Thanks for your time and best of luck going forward. Thanks, Barry Meyers

Barry Meyers 3/9/17

Barry Meyers
Applied Industrial Technologies – Wisconsin Rapids Branch
2211 Industrial Street
Wisconsin Rapids, WI 54495
715-421-1730
bmeyers@applied. com

RECEIVED
2017 MAR 20 PM 3:21
OFFICE OF THE
EXECUTIVE SECRETARIAT

RECEIVED
2017 MAR 20 PM 3:21
OFFICE OF THE
EXECUTIVE SECRETARIAT

March 13, 2017

Scott Pruitt, Administrator
Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460

Dear Mr. Pruitt,

I am enclosing a copy of a letter sent to Vice President Mike Pence regarding the invocation of Section 4, Article 25 of the Constitution, which provides for replacing a president who is not fit to discharge his presidential duties. You are being copied on this letter because under Article 25 your position as a cabinet member will be involved in the replacement of Mr. Trump as President with Mr. Pence.

The letter to the Vice President details ways in which Donald Trump has proven his unfitness to carry out the duties of the office, besmirching the presidency with deceit, moral compromise, avarice, paranoia, and instability.

I ask that you give Mr. Pence your full cooperation in carrying-out this necessary task in order to protect our democracy and our nation.

Sincerely,

Donald Levering
(b) (6)

attachment: Letter to Mike Pence regarding Amendment 25, Section 4

March 12, 2017

Vice President Mike Pence
The White House
1600 Pennsylvania Avenue NW
Washington, DC 20500

Dear Vice President Pence:

I respectfully urge you to invoke Section 4 of Amendment 25 of the Constitution. This section provides for replacing a president who is not fit to discharge his presidential duties.

In fewer than 60 days since Donald Trump was inaugurated, he has proven himself unstable and irresponsible, and lacking in judgement, morality, and leadership required of a U.S. President. I will cite some examples from the nearly daily shocks and embarrassments emanating from his office.

1) After authorizing a risky military operation in Yemen, Mr. Trump refused to accept responsibility as Commander-in-Chief for the unfortunate results, which included civilian deaths, loss of an American aircraft, and the death of Petty Officer William "Ryan" Owens. Mr. Trump blamed his generals, saying this was what "they wanted" to do, and that "they lost Ryan." This shows Mr. Trump's lack of leadership and deficiency of character needed to be Commander-in-Chief.

2) Mr. Trump has initiated a war on the press, and has attempted to turn the American people against it. He has called the media "the enemy of the people" and has repeated unsupported allegations of misconduct by respected news organizations, such as *The New York Times, The Washington Post,* and *The Los Angeles Times*. His staff has denied these and other legitimate news organizations access to a White House briefing. This hostility puts Mr. Trump in opposition to the framers of the Constitution, who named freedom of the press in the First Amendment of the Bill of Rights. His intimidation of the press is the tactic of a demagogue, not a U. S. president.

3) Similarly, Mr. Trump has attempted to denigrate the authority of the courts. He referred to the federal judge who blocked his religiously-biased executive order as a "so-called judge" and publically fumed about the judge's decision. He also displayed his lack of respect for the judiciary before the election, when he publically insulted a judge, stating that the judge was unfair to him because the judge was of Mexican ancestry. This behavior reveals prejudice and poor character and minimizes the importance of an independent judiciary, crucial to the balance of powers enshrined in the Constitution.

4) Mr. Trump has not followed government ethics experts' recommendations to fully isolate himself and divest from his businesses; indeed, he has flaunted his conflicts of interest. The degree to which he has violated the emoluments clause of the Constitution might be debated, but there is no doubt Mr. Trump views his government position as a means to enhance his business empire. In so doing, he demonstrates a lack of ethics and subverts the people's faith that the president's decisions are made solely in the best interest of this country and not with a view to enhancing the President's and his family's personal wealth and prestige. That his unbridled avidity opens our nation to leverage by foreign powers seems of no concern to Mr. Trump when others find it deeply disturbing.

5) Without citing any evidence, Mr. Trump accused his predecessor of authorizing a wire-tap on his New York residence. The response from officials who would have been involved had there been such an operation gives no support for his claim. This reckless, inflammatory charge demeans the presidency and undermines the agencies whose mission is to protect the United States.

The explanations for why he would attempt to tarnish Mr. Obama's reputation with such false claims and incivility (he referred to Mr. Obama as "sick") are further evidence of Mr. Trump's unfitness for the presidency.

- He may have done so in order to distract people from the scandal over his campaign's contacts with Russian officials. If so, it would show extremely poor judgement and lack of ethics.
- He may have received this allegation from an extremist news agency and given it full credence without checking with officials who could have verified or refuted it. If this were so, it would again display extremely poor judgement for a president.
- He may actually believe what he said is true merely because he wants it to be so. If this underlies his outrageous behavior, it betrays an unsoundness of mind.
- Mr. Trump regularly repeats patent falsehoods as fact. If mental instability does not explain the behavior, then we may view it as willingness to scuttle truth in the service of expediency, a tactic of tyrants in countries not blessed with full democracy.

6) Mr. Trump's unstable mentality and/or unethical manipulation of facts is evidenced by his inability to accept the fact that he did not win the popular vote. His response to this situation was to fabricate a claim that millions of illegal votes were cast for his opponent. This claim has no basis in reality and undermines people's faith in the voting system.

This incomplete list does not include Mr. Trump's feuding with federal intelligence agencies, his rambling, defensive press conference, his belittling of the Mexican president and bizarre insistence that Mexico will pay for his wall, his obsessing over the estimate of the crowd size at his inauguration, or his unprecedented inclusion of a radical political operative in national security meetings. Taken together, we see a president who is severely compromised temperamentally and ethically, and who has no appreciation for American democracy. He is clearly unable to fulfill his duties in any sort of honest, civil, responsible, or sane manner, and he will sacrifice any person or any principle if he feels personally minimized or impugned.

Therefore, I ask that you initiate the necessary communication to the Senate President Pro-Tempore and Speaker of the House to have Mr. Trump replaced by yourself as President in accordance with Amendment 25, section 4 of the Constitution of the United States.

Sincerely,

Donald Levering
(b) (6) [redacted]

Mon Mar 20 17:06:34 EDT 2017
Hope.Brian@epamail.epa.gov
FW: Re - Puerto Rico Limpio "Una crisis ambiental que afecta la salud publica"
To: CMS.OEX@epamail.epa.gov

From: Hiram Torres [mailto:hjtorres@hiramjose.com]
Sent: Monday, March 20, 2017 4:20 PM
To: mensajes@fortaleza.pr.gov
Cc: Pruitt, Scott <Pruitt.Scott@epa.gov>; Jenniffer.Gonzalez@mail.house.gov; trivera@drna.pr.gov; trivera@senado.pr.gov; cmendez@camaraderepresentantes.org
Subject: Re - Puerto Rico Limpio "Una crisis ambiental que afecta la salud publica"

Estimado senor Gobernador:

Reciba mis saludos cordiales. Le escribo en nombre de Puerto Rico Limpio, para solicitar su asistencia en resolver una apremiante crisis ambiental que afecta la salud publica.

Se trata de la imperante necesidad de cerrar el 70% de los vertederos municipales en la Isla que violan las leyes federales y locales.

Junto con este mensaje anejo una comunicación dirigida a usted con el propósito de ponerle al tanto de esta lamentable situación.

Quedo al pendiente.

Lcdo. Hiram J. Torres Montalvo

Portavoz Puerto Rico Limpio

CONFIDENTIALITY NOTE: This electronic communication contains information belonging to the Attorney Hiram J. Torres Montalvo and is confidential and/or legally privileged. The information is intended only for the use of the individual or entity addressed above. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution or the taking of any action in reliance on the contents of this communication is strictly prohibited. Please note that any views or opinions presented in this communication are solely those of the author and do not necessarily represent those of the firm. The recipient is responsible for checking this email and any attachments for the presence of viruses. The firm does not accept any liability for any damage caused by any virus transmitted.

PUERTO RICO LIMPIO

20 de marzo de 2017

Honorable Ricardo Rosselló Nevares
Gobernador de Puerto Rico
La Fortaleza
PO Box 9020082
San Juan, PR 00902-0082

Estimado señor Gobernador:

Le escribo en nombre de Puerto Rico Limpio, para solicitar su asistencia para resolver una apremiante crisis ambiental que afecta la salud pública. Se trata de la imperante necesidad de cerrar el 70% de los vertederos municipales en la Isla que violan las leyes federales y locales.

Mientras usted se prepara para dirigirse al Congreso, Puerto Rico Limpio le insta a comprometerse públicamente con el cierre de estos vertederos ilegales y a buscar asistencia federal para que podamos hacer cumplir nuestro sistema de gestión de desperdicios sólidos cabalmente con la ley, como corresponde.

Cabe mencionar que el Grupo de Trabajo del Congreso sobre el Desarrollo Económico en Puerto Rico ya ha expresado su preocupación con la situación en los vertederos tóxicos de Puerto Rico y ha solicitado al Congreso evaluar qué "pasos adicionales" se podrían tomar para atender la situación.

La situación en el vertedero municipal de Toa Baja sirve para subrayar la naturaleza apremiante de este asunto. El depósito generalizado de residuos y la expansión ilegal del vertedero siguen en curso, exponiendo sus residentes a las emanaciones tóxicas, aguas contaminadas y gases ilícitos que presentan un peligro inminente de explosión e incendio. Todo esto significa que la comunidad de Candelaria no es un lugar seguro y es inhabitable para los residentes.

Peor aún es que el vertedero municipal de Toa Baja - propiedad del Gobierno de Puerto Rico – recibió una orden por parte de la Agencia de Protección Ambiental de los Estados Unidos (EPA) en 2008 para descontinuar la recepción de desperdicios, al determinarse que dicha actividad representaba riesgos para la salud, pero estas órdenes fueron ignoradas. Bajo la Administración de Alejandro García Padilla, la que era entonces Secretaria de Recursos Naturales y Ambientales, Carmen Guerrero y los presidentes de la Junta de Calidad Ambiental, Laura Vélez

y Weldin Ortiz, no hicieron nada. De igual forma, la EPA bajo el mando de la administradora regional Judith Enck, y la directora para el Caribe, Carmen Guerrero, tampoco hicieron nada.

Gobernador, usted tiene la oportunidad de cambiar todo esto. En su plataforma de campaña se comprometió a lograr que los puertorriqueños no sean tratados como ciudadanos de segunda clase. Usted tiene el poder de cerrar este vertedero y la autoridad de pedir asistencia técnica y financiera inmediata a la EPA.

Como ciudadanos de los Estados Unidos, ningún puertorriqueño debería verse sometido y obligado a vivir en estas condiciones, sobre todo cuando la ley lo prohíbe expresamente. Los residentes de Candelaria, como en muchas de las comunidades afectadas, nos piden ayuda todos los días. Es hora de hacer respetar el estado de derecho y cerrar estos vertederos ilegales.

Se despide atentamente,

HIRAM J. TORRES MONTALVO
Co-fundador

CC: The Honorable Scott Pruitt, Director, U.S. Environmental Protection Agency
La Honorable Jenniffer González, Comisionada Residente
La Honorable Tania Vázquez Rivera
El Honorable Thomas Rivera Schatz, Presidente del Senado de Puerto Rico
El Honorable Carlos J. "Johnny" Méndez Núñez, Presidente de la Cámara de Representantes de Puerto Rico

Mon Mar 20 17:07:41 EDT 2017
Hope.Brian@epamail.epa.gov
FW: EPA Brownfields Grant Program Budget Appropriation
To: CMS.OEX@epamail.epa.gov

From: Joel Markland [mailto:jmarkland@bcaconsultants.com]
Sent: Monday, March 20, 2017 4:16 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: EPA Brownfields Grant Program Budget Appropriation
Importance: High

Administrator Pruitt,

Please find the attached letter outlining my thoughts on the benefits of the EPA Brownfield Grant Program. I will be more than happy to discuss this in further detail with you if you are interested. I will urge may client communities to contact you with an outline of the benefits they have realized through the program as well.

Best,

Joel B. Markland

President

7202 East 87th Street, Suite 110

Indianapolis, IN 46256

Main: (317) 578-4233 | Direct: (317) 749-0051

Cell: (b) (6) [redacted] Fax: (317) 578-4250

Email: JMarkland@BCAconsultants.com | www.BCAconsultants.com

Newsletter Signup

BCA Environmental Consultants, LLC
AIR • WATER • SOLID WASTE • BROWNFIELDS • REMEDIATION SERVICES

USEPA Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N. W.
Mail Code: 1101A
Washington, DC 20460

Dear Administrator Pruitt:

I am a small business owner in Indiana and would like to share my thoughts on the EPA Brownfields Grant Program. Specifically, how it benefits my company and communities throughout Indiana that my firm is privileged to serve as an environmental consultant. This funding has triggered many millions of dollars in economic development, and the elimination of the program will drastically inhibit private investment in properties hindered by environmental impacts. I understand that President Trump's budget proposal may eliminate this funding, and I urge you to advocate that it be kept in place.

First, let me share some basic information about my business. BCA Environmental Consultants was started in 1988 in Elkhart, Indiana, and has grown steadily over the past 30 years. We currently employ 14 people in two locations, Indianapolis and South Bend, with an average salary of nearly $68,000 per year. These are valuable, high-wage jobs making a real financial impact in the communities within which our employees live and work. One of our firm's areas of expertise is helping municipal clients address brownfield sites blighting their communities. These sites are vacant or underutilized properties that are known or believed to be contaminated.

The EPA Brownfield program provides the initial, up-front capital that often triggers private investment and redevelopment. The initial due diligence investment in a real estate transaction is often the most at risk capital in the transaction. The EPA Brownfields program provides this investment, reducing the risk and stimulating redevelopment. This results in job creation and increased tax revenues for our local communities.

This program is a very effective economic development tool. In the past five years alone, our client communities in Indiana have leveraged more than $48M in investment on just over $2M in EPA Brownfields Assessment Funding. This represents a 24:1 leveraging ratio in just the communities my firm serves, with many millions more expected on projects not yet announced. Below are a few examples of redevelopment projects that would not have happened without the initial investment of EPA Grant funding to stimulate growth and private investment:

City of Bloomington, Indiana

Bloomington has a history of successfully leveraging investment in projects throughout the community. The City was awarded a $200K EPA Brownfields Assessment Grant for FY13. 100% of the funds were strategically expended approximately 20 months after the award. , To date, they have leveraged $31.1M in additional investment on the six properties investigated. This includes a mixed-use commercial/residential development called "Moving Forward" with a committed

7202 E 87th St., Suite 110
Indianapolis, IN 46256
Phone (317) 578-4233
Fax (317) 578-4250

224 W Jefferson Blvd., Suite 204
South Bend, IN 46601
Phone (574) 522-1019
Fax (574) 522-0374

www.bcaconsultants.com

investment of $10M. Each of the six sites is expected to be fully redeveloped within the next five years, creating an estimated 200-300 jobs and $50M in additional leveraged investment. Bloomington has also begun a $30M redevelopment of a former railroad switchyard into a world class park, with project completion expected in 2020. In all, the City has leveraged tens of millions of dollars to improve streets, sidewalks, greenways, and other infrastructure projects over the past five years to help revitalize the community. Future EPA Brownfields Grant Program funding will add to this leveraging effort to further revitalize the community.

City of Logansport, Indiana

Logansport, after forging a strategic partnership with the nearby local governments of Fulton County and the City of Rochester (collectively the Coalition), was awarded a $686.5K EPA Brownfields Assessment Grant for FY12. 100% of the funds were strategically expended, and to date, they have leveraged $5.77M in additional investment and nearly 100 jobs have been created. For example, $28,754 in EPA Brownfields Grant funding was invested in a vacant, former fiberglass product manufacturing facility. As a result, the property was purchased, and $3.9M was invested in the redevelopment and improvement of the site, creating 39 permanent jobs. More investment in the Coalition area is planned. Exide (adjoins downtown Logansport) is investing $960K to demolish their former factory, and Fulton County has committed $300K to the demolition of a dilapidated former opera house. Both sites have had environmental investigations completed and will be available for redevelopment when demolition is complete. An estimated $925K has been invested in the assessment and demolition of 34 other blighted properties in Logansport. In total, the Coalition has leveraged tens of millions of dollars in grant funding to improve streets, sidewalks, greenways, and other infrastructure projects over the past five years to help revitalize the community. These projects are indicative of how we are able to use non-local funds to stimulate redevelopment. Logansport received a FY12 EPA Brownfields Assessment Grant which was used to stimulate redevelopment of the L&M Stamping site, where $120K in private investment was leveraged and 10 jobs were created.

The Town of Bourbon, Indiana

Located in north central Indiana in Marshall County, the small town of Bourbon has suffered from several blighted properties, including a former glass-cutting and vinyl window assembly plant which closed in the early 2000's. Significant concerns about the unclear environmental conditions on the site had hindered redevelopment, and using $19,354 in EPA Brownfields Grant funds, these environmental conditions were clarified. This triggered an interest from a regional business owner who was seeking a facility on which to expand his company. Ultimately, $1.11M in private investment was made to modernize and equip the property and 25 jobs were created with plans to add many more over the next two years.

City of Jeffersonville, Indiana

Jeffersonville received a $400K in EPA Brownfields Grant funding in FY15, which they are currently investing in high priority redevelopment targets in their community. One such site is a former factory and adjoining auto body shop. With an investment of $45,500 in brownfields grant funding, they successfully leveraged a $10M development that includes low income senior

housing, as well as commercial property, making a modern, highly needed mixed-use development that will serve as a catalyst for future development in the community.

As is shown above, the EPA Brownfields Grant program is a vital tool for communities throughout the United States to trigger private investment, and has a proven record of success. Often, in large cities such as Indianapolis, the private real estate market takes care of the average 0.25-5.0 acre brownfield properties because land in these communities is valuable. The risk associated with purchasing a site with unknown environmental cost is offset by the potential of revenue realized by the development. However, in smaller communities, this is not the case. Brownfields frequently remain vacant, with redevelopment stalled, often due to the lack of knowledge about the environmental conditions of the site, and the higher level of risk associated with investing in a property with unknown environmental hazards. Similarly, large manufacturing sites with unknown environmental conditions in urban areas such as Indianapolis are often too risky for even the most sophisticated investors and developers. Using the EPA's Brownfield Grant Program funding to clarify the environmental conditions on a property is often the only thing needed to stimulate interest and ultimately, investment in an otherwise overlooked property.

As a small business owner, my staff and I have worked hard to position ourselves in the environmental consulting market. We specialize in helping our municipal clients find funding to stimulate investment in their communities, and EPA Brownfields Grants play a vital role in our strategy. It is my understanding that President Trump's proposed budget may cut this program. As a leading expert in brownfield redevelopment, I urge you to keep this program in place. I have only shared a few of the many examples of how this program stimulates economic development, a goal you undoubtedly share with me as a fellow Hoosier. I would like the opportunity to discuss the benefits of the EPA Brownfields Grant Program with you. It would be my honor and pleasure to elaborate on the impact this program has on my firm, as well as the communities we serve, and I look forward to the opportunity to do so.

Sincerely,

Joel B. Markland, President

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 13 2017

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

NOW THE
OFFICE OF LAND AND
EMERGENCY MANAGEMENT

Joel B. Markland
President
BCA Environmental Consultants, LLC
7202 East 87th Street
Suite 110
Indianapolis, Indiana 46256

Dear Mr. Markland:

Thank you for your letter of March 20, 2017, to the U.S. Environmental Protection Agency. We appreciate your encouragement for EPA's Brownfields program. Your thoughtful letter includes helpful real-life examples. I read closely your observation about the Brownfields program's role in providing some of the capital that is most at risk, resulting in job creation and increased tax revenues. Congratulations, as well, on your own work and the financial impact you've summarized.

Again, thank you for your letter. If you have further questions, please contact me or your staff may contact David Lloyd, Director of the Office of Brownfields and Land Revitalization, at Lloyd.davidr@epa.gov or at (202) 566-2777.

Sincerely,

Barry N. Breen
Acting Assistant Administrator

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

MAR 29 2017

REPLY TO THE ATTENTION OF:

Edward M. McCabe, President
McCabe Engineering & Contracting
3740 Breaksville Road
Richfield, Ohio 44286

Dear Mr. McCabe,

Thank you for your email to the Administrator, dated March 20, 2017. The U.S. Environmental Protection Agency (EPA) Region 5 provided a thorough analysis and responded to your concerns in a letter dated September 25, 2012, in consultation with EPA Headquarters.

On January 31, 2017, we referenced the same letter in response to your subsequent email to the Administrator dated December 9, 2016. Please see Enclosure.

Sincerely,

Michael D. Harris for I.A.

Ignacio L. Arrázola
Acting Director
Land and Chemicals Division

Enclosure

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (100% Post Consumer)

Mon Mar 20 17:08:26 EDT 2017
Hope.Brian@epamail.epa.gov
FW: RCRA - delegated authorities
To: CMS.OEX@epamail.epa.gov

From: Ed McCabe [mailto:emccabe@mccabeengineering.com]
Sent: Monday, March 20, 2017 3:53 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: RCRA - delegated authorities

Mr. Pruitt,

Good afternoon, I trust your schedule is extremely busy as you assist President Trump MAKE AMERICA GREAT AGAIN. As a Professional Engineer who follows a Code of Ethics I have found it very "difficult" in working through the layers of protectionism state and federal employees have -- when they commit errors, omissions, conspiracy, fraud, gross negligence or a host of other actions which Impact PUBLIC HEALTH, SAFETY, WELFARE AND THE ENVIRONMENT.

We have been attempting to close a RCRA site in Dayton, Ohio (OHD 980 700 942) for approximately 20 years because of issues caused by Ohio epa and attomey general's Gross Material Environmental and Financial Misrepresentations contained within Federal RCRA closure documents - Worse yet USEPA who has authority provided by law to make sure that federal environmental laws are met by states has not used their authority over Ohio agencies - public employees protecting public employees once again.

The court system (no jury just one very liberal life style judge with a potential conflict of interest) has ruled against us and the Public - stating that the EPA has NO DUTY TO DISCLOSE known environmental conditions -- How does this make any sense ?

We have been trying to engage USEPA in an effort to restore Integrity to the RCRA process which includes the Financial Assurance component but our efforts have been treated like a Hot Potato - including the Inspector General's office - This project is a poster child supporting the need for change within the EPA.

We respectfully request your assistance in resolving this matter and use it as the New poster child for your efforts to MAKE EPA GREAT AGAIN !

Edward M. McCabe, P.E.

President

McCabe Engineering & Contracting

3470 Brecksville Road

Richfield OH 44286

330.659.3550 (p)

330.659.3596 (f)

(b) (6) [redacted] (m)

CONFIDENTIALITY NOTICE

This transmission and any document(s) accompanying this transmission may contain confidential information. This email and any attached document(s) are intended only for the use of the individual(s) or entity named above, please do not disseminate or distribute. If you are not the intended recipient, please notify McCabe Corporation immediately by calling collect at (330) 659-3550 to arrange for the retrieval or destruction of this transmission and any accompanying documents.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

JAN 3 1 2017

Edward M. McCabe, President
McCabe Engineering & Contracting
3740 Brecksville Road
Richfield, Ohio 44286

Dear Mr. McCabe,

Thank you for your email to the Administrator, dated December 9, 2016. The U.S. Environmental Protection Agency (EPA) Region 5 responded to your concerns in a letter dated September 25, 2012, in consultation with EPA Headquarters. See Enclosure.

Sincerely,

Ignacio Arrázola
Acting Director
Land and Chemicals Division

Enclosure

cc: w/enclosure: Norman A. Abood, Esq.

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (100% Post-Consumer)

mafra

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

SEP 25 2012

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

REPLY TO THE ATTENTION OF:

L-8J

Edward M. McCabe, President
McCabe Engineering & Contracting
3470 Brecksville Road
Richfield, Ohio 44286

Re: Hazardous Waste Facility at 636 North Irwin Street, Dayton, Ohio
Facility Identification Number: OHD 980 700 942

Dear Mr. McCabe:

We have reviewed the materials you submitted regarding the 1998 approval by the State of Ohio of the Closure Plan for the hazardous waste treatment, storage and/or disposal (TSD) facility located at 636 North Irwin Street in Dayton, Ohio, and the 1999 release of excess funds from the closure trust fund. Ohio has been authorized under Section 3006 of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6926, to administer the RCRA hazardous waste program in Ohio.

The background related to the issues you have raised includes the fact that many of the allegations you provided to EPA were issues brought before a State judge in the 2007 civil proceeding that the State of Ohio initiated against you, your company, and the former owner of the facility. In that proceeding, the court found in favor of the State of Ohio, and you unsuccessfully appealed the matter up to the State's supreme court. Among other things, the courts found that you[1] had been employed by Republic Environmental Systems, Inc. (Republic) to perform activities required by a Consent Order with the State of Ohio requiring Republic to take numerous steps to address suspected and confirmed contamination at the facility; entered into a purchase agreement to purchase the property "as is" on December 17, 1997, apparently without conducting an independent environmental assessment at or prior to the time of purchase; and obtained title on or about June 29, 1998. The court also found you did not have communications with Ohio EPA about the facility until after you purchased the facility.

You first contacted EPA in February 2011, to ask us to look into the State's actions regarding the property at 636 North Irwin Street in Dayton, Ohio and have followed up by providing us with

[1] The court found that McCabe Engineering, Inc., aka McCabe Engineering Corporation, is a fictitious name for Edward M. McCabe and/or McCabe Corporation.

correspondence dated August 1, 2011, October 12, 2011, and January 13, 2012, as well as e-mails as recently as June 26, 2012. We sent you a letter in June 2011, advising you that you needed to submit documentation to support your allegations; and again in November 2011, noting the staleness of the matters alleged and seeking to ascertain with greater clarity what you wanted from this inquiry. Your January 13, 2012, response asked us to intercede in the State closure process and obtain information on your behalf, and you also requested guidance on the False Claims Act. We replied by e-mail, including a March 23, 2012, e-mail advising you to consult with your attorney on False Claims Act matters.[2] As we have previously stated, we are not the forum to appeal the courts' decisions in your litigation with the State, nor the forum for you to pursue claims under the False Claims Act.

We reviewed your correspondence and submittals at our discretion as part of our oversight of State environmental programs to ensure the State is administering its authorized, delegated and/or approved programs in accordance with requirements for such programs, but have not found that the State failed to comply with the requirements for state programs. The State appears to be enforcing the authorized RCRA closure requirements, and State law has afforded you the opportunity to challenge the State's determinations and actions and also provides avenues for you to seek information from the State. We do not plan to interfere with the State's administration of its authorized RCRA program, or to act for you in this matter. As the current owner or operator of a RCRA hazardous waste TSD, you should abide by all applicable orders and statutory and regulatory requirements, including the authorized Ohio regulations governing closure and post-closure of such facilities and financial assurance.[3] You may not be pleased with the State courts' decisions but we are not the forum to appeal them. I am enclosing our analysis of information provided by you and available from the State.

Please have your attorney contact Maria Gonzalez, Associate Regional Counsel, at (312) 886-6630, with questions or comments.[4]

Sincerely,

Margaret M. Guerriero
Director
Land and Chemicals Division

Enclosure

---

[2] We also provided you with a link to report any environmental violations, in our April 14, 2011 e-mail.
[3] Those requirements are also included at paragraph 8 of the 1998 Consent Order.
[4] It is our understanding that Norman A. Abood currently represents you in this matter. A request not to copy an attorney representing you on correspondence would have to come from that attorney.

cc: Brian Ball, Ohio Attorney General's Office
Ed Lim, Ohio EPA
Norman A. Abood

Analysis of Issues Raised by Edward McCabe Regarding the Purchase, Closure Approval, and Trust Fund Disbursement for RCRA Facility at 636 North Irwin Street in Dayton, Ohio

In reviewing the information Mr. McCabe provided as well as the public record on the case, we were able to determine the following: At the time of the purchase, the subject facility was known to be a RCRA TSD with confirmed groundwater contamination. In the purchase agreement Mr. McCabe signed on December 17, 1997, he agreed to purchase the property "as is" without warranty as to the condition and acknowledged that he would fully inspect the real property:

> *7. Condition. The Premises will be transferred 'as is', and the Purchaser will accept the property in the current condition without any other warranty as to the condition (including environmental) of the Premises, any improvements or personal property thereon. Purchaser agrees that Seller makes no representations or warranties of any kind or nature regarding the real property, express or implied, including but not limited to latent defects, and Purchaser acknowledges to Seller that as of closing it shall have fully inspected the real property and satisfied itself in all respects there with, including, but not limited to, all matters related to hazardous and toxic materials and substances, and that it will be purchasing the real property on an "as is, where is" basis.*

At paragraph 7.a., Republic agreed to reimburse him for costs in excess of $400,000, under a formula where they were to pay 100% for the first $200,000, 50% of the next $200,000, and 100% for any excess over $300,000. Exhibit II of the purchase agreement, which he also signed on December 17, 1997, stated, among other things, that he assumed all of the Seller's responsibilities and liabilities to complete closure and other remedial requirements as detailed in the Seller's closure plan and any consent agreements with governmental authorities; agreed to perform all required closure and remedial activities in accordance with the Closure Plan and Consent Agreements, would take all reasonable efforts so that closure will occur such that no post closure care would be required, and would be responsible for all such post closure care:

> *For valuable consideration, Purchaser hereby assumes all of Seller's responsibilities and liabilities to complete closure and other remedial requirements at the Premises, all as detained in Seller's closure plan for the facility (the "Closure Plan") and any consent agreements with governmental authorities (the "Consent Agreements"). Purchaser further agrees to perform all required closure and remedial activities in accordance with the requirements of the Closure Plan and Consent Agreements and any timetable applicable thereto. Purchaser will promptly complete closure on the basis of industrial use of the property, and Purchaser will furnish Seller a copy of the documents certifying and accepting closure. All reasonable efforts will be taken by Purchaser so that closure will occur such that no post closure care will be required (without the consent of Seller), and Purchaser will be responsible for all such post closure care. Purchaser will take all*

actions necessary to have any financial assurance for the Premises released, and all fund or other property comprising same will remain the property of Seller and will be delivered to Seller. Purchaser will perform all such activities in a good and workmanlike manner at reasonable cost and will carry or require appropriate insurance for such activities. Purchaser acknowledges that Purchaser has received a copy of the Closure Plan and Consent Agreement.

As quoted above, it specified that Mr. McCabe would take all actions necessary to have any financial assurance for the Premises released, and that all funds or other property compromising same would remain the property of Seller and be delivered to the Seller.

As a potential purchaser of the property, Mr. McCabe could have conducted his own studies of the property before purchasing it "as is" and agreeing to conduct the closure. He could also have requested documents from the State under State law. He did not provided us with any documentation of inspections or assessments that he conducted prior to purchasing the property and, as mentioned above, the court found that he did not conduct an independent environmental assessment at or prior to the time of purchase of this RCRA TSD with confirmed groundwater contamination and did not communicate with Ohio EPA prior to the purchase. Please note that closure plans are not intended to be a statement on all environmental conditions at a facility and would not substitute for conducting a site assessment and/or investigation prior to purchase.

On September 9, 1998, Ohio EPA approved the closure plan prepared by Stone & Webster Engineering Corporation for Republic, after a public comment period. The closure plan did not ignore existing or potential contamination at the site. It required a large number of soil samples and attached and incorporated information on known groundwater contamination at the facility. It appears to have been designed to verify if contamination existed at the site, and could be amended, along with the cost estimate, if further contamination was found. While the State, in the process of administering its program, comments on and reviews the closure plan, it is not the author of that document and has to rely to a large extent on the information presented by the owner/operator and its engineer.

Mr. McCabe stressed evidence, found inadmissible by the court, regarding a few roll-off boxes of solid materials stored outside, but there is not sufficient information in the documents he provided to show the nature and extent of any leaks from the solids in those roll-off boxes or whether such leaks, if any, would have increased the cost estimate for closure. The correspondence reflects that some clean-up of the solid wastes leaked from those boxes occurred. The closure plan required sampling in the area where the roll-off boxes were located. We could not determine the spectrum of hazardous constituents involved in the 1995 incident from the documents he submitted, but the closure plan, at pages 30-31, provided for additional sample collection if significant evidence of contamination was found to exist at any of the sampling points. Additional samples were to be collected from a depth of 2-3 feet beneath the original sampling points, and sampling was to continue until the vertical limits of the contamination were

determined. A statement that contaminated soils were not expected to be encountered in certain areas does not mean action was not required to be taken if contamination was found. The closure plan specified a significant number of samples in areas where past management of hazardous wastes was known to have occurred.

With respect to groundwater, the February 12, 1993 letter from Ohio EPA inspector Elizabeth Rothschild to Brad Moore that Mr. McCabe submitted indicates that Republic was already conducting groundwater monitoring at the site; and the closure plan incorporated the existing groundwater compliance monitoring program as Appendix I-2.[5] The compliance monitoring program was required to be initiated by Republic after groundwater at the facility was found to have statistically significant contamination above background concentrations, for certain hazardous constituents, at the compliance monitoring location. While the closure plan assumed that wastes would be removed upon final closure, it provided that in the event all contaminated subsoils could not practicably be removed or decontaminated, post closure care would be conducted, and would consist initially of compliance monitoring of groundwater in accordance with the compliance monitoring plan. It is our understanding that, at this time, the facility has not been closed and a decision has not been made to leave the wastes in place.

With respect to Mr. McCabe's issues with the disbursements from the financial assurance trust fund, we looked at both the 1999 State approval of a disbursement of $284,000 to Republic, and the 2002 release of funds by Republic to him mentioned by the courts. (See *Ohio v. Republic Envtl. Sys., Inc.*, 2010 Ohio 5523 (Ohio App. 2010)). In 1999, the State approved disbursement of funds in excess of the approved cost estimate to Republic. At that time, Republic still had an interest in the fund and costs at the facility, as set forth in the purchase agreement, and was the named permit holder. Disbursing funds in excess of the approved cost estimate at the time to a party that provided the funds and retained an interest is not inappropriate. There may have been some confusion as to the ownership of the property since the court found that Mr. McCabe never filed the required paperwork notifying Ohio of the property transfer. He did not provide us with information about the 2001 disbursement of funds. Seven thousand dollars was released to reimburse Mr. McCabe for a quarterly groundwater monitoring event he conducted. Adequate funds need to remain to cover the costs of closure, and, if necessary, post closure care, and financial assurance needs to be updated as set forth in the regulations.

[5] Mr. McCabe's October 5, 1999 request for amendment of the approved closure plan sought a reduction in the groundwater monitoring frequency.

Mon Mar 20 17:08:26 EDT 2017
Hope.Brian@epamail.epa.gov
FW: RCRA - delegated authorities
To: CMS.OEX@epamail.epa.gov

From: Ed McCabe [mailto:emccabe@mccabeengineering.com]
Sent: Monday, March 20, 2017 3:53 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: RCRA - delegated authorities

Mr. Pruitt,

Good afternoon, I trust your schedule is extremely busy as you assist President Trump MAKE AMERICA GREAT AGAIN. As a Professional Engineer who follows a Code of Ethics I have found it very "difficult" in working through the layers of protectionism state and federal employees have -- when they commit errors, omissions, conspiracy, fraud, gross negligence or a host of other actions which Impact PUBLIC HEALTH, SAFETY, WELFARE AND THE ENVIRONMENT.

We have been attempting to close a RCRA site in Dayton, Ohio (OHD 980 700 942) for approximately 20 years because of issues caused by Ohio epa and attorney general's Gross Material Environmental and Financial Misrepresentations contained within Federal RCRA closure documents - Worse yet USEPA who has authority provided by law to make sure that federal environmental laws are met by states has not used their authority over Ohio agencies - public employees protecting public employees once again.

The court system (no jury just one very liberal life style judge with a potential conflict of interest) has ruled against us and the Public - stating that the EPA has NO DUTY TO DISCLOSE known environmental conditions -- How does this make any sense ?

We have been trying to engage USEPA in an effort to restore Integrity to the RCRA process which includes the Financial Assurance component but our efforts have been treated like a Hot Potato - including the Inspector General's office - This project is a poster child supporting the need for change within the EPA.

We respectfully request your assistance in resolving this matter and use it as the New poster child for your efforts to MAKE EPA GREAT AGAIN !

Edward M. McCabe, P.E.

President

McCabe Engineering & Contracting

3470 Brecksville Road

Richfield OH 44286

330.659.3550 (p)

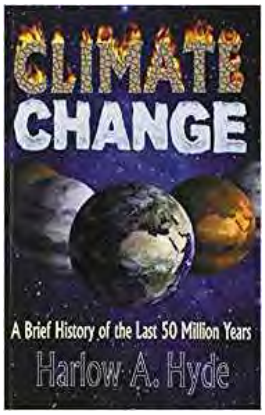
330.659.3596 (f)

(b) (6) (m)

CONFIDENTIALITY NOTICE

This transmission and any document(s) accompanying this transmission may contain confidential information. This email and any attached document(s) are intended only for the use of the individual(s) or entity named above, please do not disseminate or distribute. If you are not the intended recipient, please notify McCabe Corporation immediately by calling collect at (330) 659-3550 to arrange for the retrieval or destruction of this transmission and any accompanying documents.

Try Prime
Books climate change A brief history
Departments Your Amazon.com Today's Deals Gift Cards & Re EN Hello. Sign in Account & Lists Orders Try Prime 0
Books Advanced Search New Releases Best Sellers The New York Times® Best Sellers Children's Books Textbooks Textbook Rentals
Books › Science & Math › History & Philosophy



See all 2 images

Climate Change: A Brief History of the Last 50 Million Years

Paperback – November 30, 2015

by Harlow A. Hyde (Original Author)

2 customer reviews

See all formats and editions

Paperback
$14.95

4 Used from $5.31
4 New from $9.90

"Climate Change" summarizes many large and small tomes on climate history and climate change. Harlow A. Hyde presents an eminently readable and much shorter description of this topic, drawn from actual recordings and measurements spanning prehistory to our present day. The author's serious, yet

Read more

Springer Science Sale
Explore featured applied science titles on sale.

Share

Buy New $14.95

Qty: 1

FREE Shipping on orders with at least $25 of books.

Only 2 left in stock (more on the way).
Ships from and sold by Amazon.com.
Gift-wrap available.

Add to Cart

Turn on 1-Click ordering for this browser

Want it Thursday, March 23? Order within and choose **One-Day Shipping** at checkout. Details

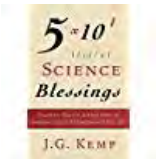
Ship to:
WASHINGTON, DC 20001

Buy Used $9.30

Submit Query

Have one to sell? Sell on Amazon

Sponsored Products Related To This Item (What's this?)



50 Science Blessings: Prayers, Toasts, & Proverbs for Holidays, Special Occasions, and
J. G. Kemp
For the science nerd who can't help but laugh and cry at the wonder of it all!
6
Kindle Edition
$4.99

NAKED: Stripped by a Man and Hurricane Katrina
Julie Freed PhD
What happens when a new mother loses everything? Her house and spouse disintegrate. But from the rubble, Julie and her baby girl emerge anew.
168
Kindle Edition
$4.49

Ready, Set, Change: The Power of Simple Experiments to Create the Life You Want
I. C. Robledo
Ready for a Life Change? Whether You Want to Make More Money, Lose Weight, Meet People, or Something Else, This One Book Will Help You Make It Happen!
2
Kindle Edition
$2.99

Ad feedback

Special offers and product promotions

- Get a **$75.00 statement credit** after first Amazon.com purchase made with new **Discover it® card within 3 months**. Terms and conditions apply. See offer for details. Apply now.

Editorial Reviews

About the Author

Harlow A. Hyde has been studying the climate for at least 25 years. He was born and raised in South Dakota, where the main topics of discussion are the weather and how fast the grass is growing. He was an administrator in state government in Nebraska for over 30 years and served in the Peace Corps in 2002. The author holds an M.B.A. degree from the University of South Dakota, has been published in The Atlantic Monthly, was interviewed on Nightline and NPR Weekend Edition, and previously published a scholarly work on arms limitation treaties, Scraps of Paper, the Disarmament Treaties Between the World Wars. He is currently retired, is a member of the Rotary Club, and lives in Florida with his wife, Robin.

Read more

Product details

Paperback: 164 pages
Publisher: Legacy Book Publishing (November 30, 2015)
Language: English
ISBN-10: 1937952827
ISBN-13: 978-1937952822
Product Dimensions: 8.4 x 5.8 x 0.7 inches
Shipping Weight: 12.6 ounces (View shipping rates and policies)
Average Customer Review: ★★★★☆ (2 customer reviews)
Amazon Best Sellers Rank: #3,157,810 in Books (See Top 100 in Books)
#13593 in Books > Science & Math > **History & Philosophy**

If you are a seller for this product, would you like to **suggest updates through seller support**?

Tell the Publisher!
I'd like to read this book on Kindle

Don't have a Kindle? Get your Kindle here, or download a **FREE** Kindle Reading App.

New York Times Best Sellers
Load up on these top titles for spring vacations and staycations. See more

-

Customer Reviews

★★★★☆ 2
4.0 out of 5 stars

5 star		50%
4 star		0%
3 star		50%
2 star		0%
1 star		0%

Share your thoughts with other customers

Write a customer review

See all verified purchase reviews

Top Customer Reviews

Very interesting conclusion about precipitation.
By Marmot Ridge on March 18, 2016
Verified Purchase

Hyde seems to be a serious student of climate change. He makes conclusions that are based on data and that is a serious positive statement over the normal brouhaha in the media.

He probably could have made the book half the length with less repetitive writing and adding a few charts of
Read more

Comment | Was this review helpful to you? Yes No Report abuse

Great resource on climate change.
By Amazon Customer on January 10, 2016

Very interesting and very well researched. Great resource on climate change. A great compilation of data into
Read more

Comment | Was this review helpful to you? Yes No Report abuse

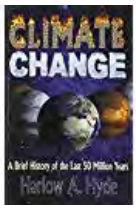
Search Customer Reviews

Submit Query

See all verified purchase reviews (newest first)

Write a customer review

Set up an Amazon Giveaway



Amazon Giveaway allows you to run promotional giveaways in order to create buzz, reward your audience, and attract new followers and customers. Learn more about Amazon Giveaway

This item: Climate Change: A Brief History of the Last 50 Million Years

Set up a giveaway

Back to top

Get to Know Us
Careers
About Amazon
Investor Relations
Amazon Devices

Make Money with Us
Sell on Amazon
Sell Your Services on Amazon
Sell on Amazon Business
Sell Your Apps on Amazon
Become an Affiliate
Advertise Your Products
Self-Publish with Us
Become an Amazon Vendor
› See all

Amazon Payment Products
Amazon Rewards Visa Signature Cards
Amazon.com Store Card
Amazon.com Corporate Credit Line
Shop with Points
Credit Card Marketplace
Reload Your Balance
Amazon Currency Converter

Let Us Help You
Your Account
Your Orders
Shipping Rates & Policies
Amazon Prime
Returns & Replacements
Manage Your Content and Devices
Amazon Assistant
Help

English United States

Amazon Drive
Unlimited Cloud Storage From Amazon

6pm
Score deals on fashion brands

AbeBooks
Books, art & collectibles

ACX
Audiobook Publishing Made Easy

Alexa
Actionable Analytics for the Web

Amazon Business
Everything For Your Business

AmazonFresh
Groceries & More Right To Your Door

AmazonGlobal
Ship Orders Internationally

Home Services
Handpicked Pros Happiness Guarantee

Amazon Inspire
Free Digital Educational Resources

Amazon Rapids
Fun stories for kids on the go

Amazon Restaurants
Food delivery from local restaurants

Amazon Video Direct
Video Distribution Made Easy

Amazon Web Services
Scalable Cloud Computing Services

Audible
Download Audio Books

BeautyBar.com
Prestige Beauty Delivered

Book Depository
Books With Free Delivery Worldwide

Box Office Mojo
Find Movie Box Office Data

Casa.com
Kitchen, Storage & Everything Home

ComiXology
Thousands of Digital Comics

CreateSpace
Indie Print Publishing Made Easy

Diapers.com
Everything But The Baby

DPReview
Digital Photography

East Dane
Designer Men's Fashion

Fabric
Sewing, Quilting & Knitting

Goodreads
Book reviews & recommendations

IMDb
Movies, TV & Celebrities

IMDbPro
Get Info Entertainment Professionals Need

Junglee.com
Shop Online in India

Kindle Direct Publishing
Indie Digital Publishing Made Easy

Prime Now
FREE 2-Hour Delivery on Everyday Items

Shopbop
Designer Fashion Brands

Soap.com
Health, Beauty & Home Essentials

TenMarks.com
Math Activities for Kids & Schools

Wag.com
Everything For Your Pet

Warehouse Deals
Open-Box Discounts

Whispercast
Discover & Distribute Digital Content

Withoutabox
Submit to Film Festivals

Woot!
Deals and Shenanigans

Yoyo.com
A Happy Place To Shop For Toys

Zappos
Shoes & Clothing

Conditions of Use Privacy Notice Interest-Based Ads © 1996-2017, Amazon.com, Inc. or its affiliates

RECEIVED

2017 MAR 21 AM 8: 12

OFFICE OF THE
EXECUTIVE SECRETARIAT

Harlow A. Hyde
107 Apremont Ct
DeLand, FL 32724-7307

March 16, 2017

Scott Pruitt, Administrator
Environmental Protection Agency
Mail Code 1101A
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

RE: Increased Precipitation: The TRUE and WONDERFUL result of Climate Change!

Dear Mr. Pruitt,

Enclosed is a copy of a little book I published in 2015 on Climate Change. Don't bother to read it … but you might turn for a couple of minutes to look at pages 73 to 75. There I document a ***true*** "Alternative Fact" that you will never hear from the Climate Change Gang. **The main effects of climate change in the United States since 1895 has been a very substantial increase in precipitation!** The effects of the increased precipitation have been worth billions of dollars annually to our economy in increased food production and other factors. Not to bore you with too many details, but my home state of South Dakota has been transformed for the better due to the combination of much increased precipitation and warmer temperatures. The real Alternative Fact about Climate Change is that it is has been highly beneficial for the entire center of the United States, and if the trends continue the benefits will continue to accrue. This includes both warmer temperatures and greater precipitation.

My book used data through 2014. However, 2015 and 2016 data now available confirm the increase in precipitation--both years were very wet in the United States and the benefits were tremendous.

Good luck in getting the truth out. I offer my best wishes for your success.

Sincerely yours,

Harlow A. Hyde

Harlow A. Hyde

CLIMATE CHANGE

A Brief History of the Last 50 Million Years

Harlow A. Hyde

CLIMATE CHANGE

A Brief History of the Last 50 Million Years

To Scott Pruitt —
Warmest regards on
a "hot topic!"
Harlow A. Hyde
March, 2017

Climate Change: A Brief History of the Past 50 Million Years

Published by:
LEGACY Book Publishing
1883 Lee Road
Winter Park, Florida 32789
www.LegacyBookPublishing.com

2015© Harlow A. Hyde and Legacy Book Publishing
Printed in the United States—First printing
ISBN: 978-1-937952-82-2

Cover Design by Gabriel H. Vaughn

All rights reserved. No part of this book may be reproduced by any means, nor transmitted, nor translated into a machine language without the express written permission of the Publisher or Author.

Table
Conte

Introduction.....

PART I: CLIMATE HIST
Chapter One .....
A Brief Summary of the Pas
Chapter Two .....
The Current Interglacial Pe
Chapter Three .....
After the Climatic Optimun
Chapter Four .....
The Little Ice Age, Part One
Chapter Five .....
The History of Climate Doc
United States
Chapter Six .....
The Little Ice Age, Part Tw

PART II: CLIMATE CHA
Chapter Seven .....
Precipitation
Chapter Eight .....
Precipitation: Conclusion a

Climate/History $14.95

About the Author

Harlow A. Hyde has been studying the climate for at least 25 years. He was born and raised in South Dakota, where the main topics of discussion are the weather and how fast the grass is growing. He was an administrator in state government in Nebraska for over 30 years and served in the Peace Corps in 2002. The author holds an M.B.A. degree from the University of South Dakota, has been published in The Atlantic Monthly, was interviewed on *Nightline* and *NPR Weekend Edition*, and previously published a scholarly work on arms limitation treaties, *Scraps of Paper, the Disarmament Treaties Between the World Wars*. He is currently retired, is a member of the Rotary Club, and lives in Florida with his wife, Robin.

"Climate Change" summarizes many large and small tomes on climate history and climate change. Harlow A. Hyde presents an eminently readable and much shorter description of this topic, drawn from actual recordings and measurements spanning prehistory to our present day. The author's serious, yet sometimes irreverent, approach is informative and humorous. Included are 16 charts for precipitation and temperature, which add greatly to the ease of both reading and understanding, as well as comparisons with England's climate records for similar time periods. If you want to know how climate really works and what data are really available, this book explains it in a nutshell.

ISBN 978-1-937952-82-2
9 781937 952822
51495 >

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

March 16, 2017

Nick Akins
Chairman, President and CEO
American Electric Power
1 Riverside Plaza
Columbus, OH 43215-2373

Dear Nick,

It was a pleasure visiting with you at the EEI meeting. I was certainly blessed to be part of the program. What a great group!

I hope to see you again in the future.

All the best,

Scott

E. Scott Pruitt

Wonderful to see you... Godspeed!

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

March 16, 2017

Mr. Sean Trauschke
President and CEO
OGE Energy Group
P.O. Box 321
Oklahoma City, OK 73101-0321

Dear Sean,

It was great to see you at EEI, and I appreciate that it was you who gave my introduction prior to my speech. I'm disappointed that we didn't get to meet on Monday; hopefully the meeting with Ryan Jackson went well in my absence. Please let us know when you will be back to DC again in the future. I'd love to visit with you more.

All the best,

Scott

E. Scott Pruitt

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

Jan. 11, 2017

Dear Mr. Pruitt,

Seems funny to write Mr. Pruitt, as that is my father.

My name is Mary Pruitt Burros. My father is Ernest Bobby Pruitt, son of Ernest William Pruitt, son of David and Tabaitha. I am not sure who David's father was. Somewhere back there was an Andrew Jackson Pruitt. My dad has done quite a bit of work on our family tree but he is almost 93 & right now does not remember a lot. Our line lived mostly in Arkansas & Missouri but I know some Pruitts were in the Oklahoma land rush & some were Sooners. When my Grandpa, Ernest, was young his family moved to Oregon, back to Missouri & then back to OR. In my Grandpa's family were 11 or 12 kids.

Anyway, I saw your

"Open our eyes to behold your gracious hand in all your works; that rejoicing in your whole creation we may learn to serve you with gladness. . . ."

hope to see you
Time & see if we might be family
I know you will be (& are) busy as
you get to Washington DC but when
you have a chance
May God bless you & Trump &
all the others who will leading our
country.

Your Hopeful family,
Mary Pruitt Burrus

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

March 16, 2017

Mary P. Bureros
(b) (6)

Dear Mary,

I very much enjoyed your letter to me and learning about your family. I don't know if we are related but from reading your note – it makes me hope that we are! Thank you for the encouraging comments. Hope you are doing well.

God bless,

Scott Pruitt

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

March 15, 2017

Quinlan J. Shea, Vice President
Edison Electric Institute (EEI)
701 Pennsylvania Ave., NW
Washington DC 20004

Quinlan,

It was a pleasure meeting you at the EEI meeting. I truly enjoyed my time with you and your members. What a great group!

Thank you for the opportunity to speak to your membership. I was blessed to be part of your program. Don't hesitate to contact us if you have any questions or concerns.

All the best,

Scott

E. Scott Pruitt

Wonderful to See you!

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

Tue Mar 21 09:36:43 EDT 2017
Hope.Brian@epamail.epa.gov
FW: NAAQS Implementation Coalition Petition for Reconsideration of Final Appendix W Rule (EPA Docket No. EPA–HQ–OAR–2015–0310)
To: CMS.OEX@epamail.epa.gov

Daily Reading File

FYI to OAR (already submitted to docket)

Print full copy for Ryan Jackson

From: Stanko, Joseph [mailto:jstanko@hunton.com]
Sent: Monday, March 20, 2017 6:22 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Cc: A-AND-R-DOCKET <A-AND-R-DOCKET@epa.gov>; Jackson, Ryan <jackson.ryan@epa.gov>; Dunham, Sarah <Dunham.Sarah@epa.gov>; Page, Steve <Page.Steve@epa.gov>; Wayland, Richard <Wayland.Richard@epa.gov>; Fox, Tyler <Fox.Tyler@epa.gov>; Bridgers, George <Bridgers.George@epa.gov>
Subject: NAAQS Implementation Coalition Petition for Reconsideration of Final Appendix W Rule (EPA Docket No. EPA–HQ–OAR–2015–0310)

March 20, 2017

The Honorable Scott Pruitt

Administrator

United States Environmental Protection Agency

Administrator Pruitt,

Attached is the Petition of the National Ambient Air Quality Standards Implementation Coalition to the Administrator of the United States Environmental Protection Agency for Administrative Reconsideration of portions of EPA's January 17, 2017 final rule entitled "Revisions to the Guideline on Air Quality Models: Enhancements to the AERMOD Dispersion Modeling System and Incorporation of Approaches to Address Ozone and Fine Particulate Matter," which was published at 82 Fed. Reg. 5182 (Jan. 17, 2017). A copy of this petition is also being electronically mailed to the Air and Radiation Docket for filing in EPA docket number EPA–HQ–OAR–2015–0310.

Thank you in advance for consideration of this petition. Please have staff contact me with any questions regarding the petition.

Sincerely,

Joseph C. Stanko, Jr.

Counsel for the

NAAQS Implementation Coalition

HUNTON & WILLIAMS

Joseph S. Hall
Partner
Hunton & Williams LLP
2200 Pennsylvania Avenue, N.W.
Washington, D.C. 20037
202.955.1529
jhall@hunton.com
www.huntonlaw.com

HUNTON & WILLIAMS

HUNTON & WILLIAMS LLP
2200 PENNSYLVANIA AVENUE, NW
WASHINGTON, D.C. 20037-1701

TEL 202 • 955 • 1500
FAX 202 • 778 • 2201

JOSEPH C. STANKO, JR.
DIRECT DIAL: 202 • 955 • 1529
EMAIL: jstanko@hunton.com

March 20, 2017

VIA ELECTRONIC MAIL

The Honorable Scott Pruitt
Administrator
U.S. Environmental Protection Agency
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
Mail Code 1101A
Washington, DC 20460

PETITION OF THE NAAQS IMPLEMENTATION COALITION TO THE ADMINISTRATOR OF THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY FOR ADMINISTRATIVE RECONSIDERATION OF PORTIONS OF THE FINAL RULE ENTITLED "REVISIONS TO THE GUIDELINE ON AIR QUALITY MODELS: ENHANCEMENTS TO THE AERMOD DISPERSION MODELING SYSTEM AND INCORPORATION OF APPROACHES TO ADDRESS OZONE AND FINE PARTICULATE MATTER"

82 Fed. Reg. 5182 (Jan. 17, 2017)
EPA–HQ–OAR–2015–0310

Administrator Pruitt:

Enclosed, pleased find from the National Ambient Air Quality Standards ("NAAQS") Implementation Coalition a Petition for Reconsideration of portions of the final rule of the United States Environmental Protection Agency entitled "Revisions to the Guideline on Air Quality Models: Enhancements to the AERMOD Dispersion Modeling System and Incorporation of Approaches to Address Ozone and Fine Particulate Matter," 82 Fed. Reg. 5182 (Jan. 17, 2017). A copy of this petition has also been electronically mailed to the Air and Radiation Docket for filing in EPA docket number EPA–HQ–OAR–2015–0310.

Please contact me if you have any questions regarding this petition.

HUNTON&
WILLIAMS

Sincerely,

Joseph C. Stanko, Jr.
Counsel for the
NAAQS Implementation Coalition

Attachment

cc: EPA Air and Radiation Docket
Ryan Jackson, Chief of Staff
Sarah Dunham, Acting Assistant Administrator, Office of Air and Radiation
Steve Page, Director, Office of Air Quality Planning and Standards (OAQPS)
Chet Wayland, Director, Air Quality Assessment Division, OAQPS
Tyler Fox, Leader, Air Quality Modeling Group, OAQPS
George Bridgers, Director, Model Clearinghouse, OAQPS

BEFORE THE ADMINISTRATOR OF THE
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Revisions to the Guideline on Air Quality Models: Enhancements to the AERMOD Dispersion Modeling System and Incorporation of Approaches to Address Ozone and Fine Particulate Matter; Final Rule. 82 Fed. Reg. 5182 (Jan. 17, 2017)	Docket No. EPA-HQ-OAR-2015-0310

PETITION OF THE NAAQS IMPLEMENTATION COALITION FOR RECONSIDERATION OF PORTIONS OF THE FINAL RULE

The National Ambient Air Quality Standards ("NAAQS") Implementation Coalition[1] hereby petitions the Administrator of the United States Environmental Protection Agency (the "Administrator," "EPA" or the "Agency") to reconsider portions of the final rule referenced above.[2] That rule – the "Final Appendix W Rule" – was published in the *Federal Register* on January 17, 2017, 82 Fed. Reg. 5182, with an effective date of May 22, 2017.

The Final Appendix W Rule promulgates revisions to the *Guideline on Air Quality Models*, 40 C.F.R. part 51, appendix W ("Appendix W"), which lists EPA's preferred models and recommended modeling techniques and serves as guidance for the use of air quality modeling in estimating ambient concentrations of air pollutants. Many parts of the Final Appendix W Rule provide needed improvements to EPA-preferred models, and we strongly support such improvements.

We are concerned, however, with specific provisions of the Final Rule, some of which appeared for the first time in the Final Appendix W Rule, and, thus were not previously available for comment. The remainder of this petition provides an overview of our concerns, which are of central relevance to the Final Appendix W Rule. We intend to file a more-detailed supplement to this petition at a later date that will expound further on our concerns.

[1] The NAAQS Implementation Coalition includes trade associations, companies, and other entities that confront challenges in permitting and operating facilities under increasingly-stringent NAAQS, including those for ozone and $PM_{2.5}$. It is our experience that addressing these challenges is critical to fostering economic expansion, creating jobs in manufacturing and other economic sectors, and generating needed tax revenue for local communities throughout the country.

[2] This petition is filed pursuant to section 4(d) of the Administrative Procedure Act, 5 U.S.C. § 553(e), and, to the extent it may be applicable and relevant, section 307(d)(7)(B) of the Clean Air Act, 42 U.S.C. § 7607(d)(7)(B).

OBJECTIONS

Single-Source Photochemical Grid Modeling for Ozone and $PM_{2.5}$ Precursors

The Final Appendix W Rule establishes a new requirement that, in the absence of a screening analysis that results in a source being exempt from conducting and reporting the results of air quality modeling, applicants seeking prevention of significant deterioration ("PSD") permits must model impacts on ambient air quality of their emissions of precursors to ozone and $PM_{2.5}$ using a "chemical transport model" such as a photochemical grid model or a suitable Lagrangian model.[3] EPA does not, however, specify a preferred model for this purpose.[4] We believe that the current state of modeling technology does not support this requirement.

Although the Clean Air Act requires applicants for PSD permits to provide "an analysis of air quality,[5] and that the Administrator "specify with reasonable particularity each air quality model or models to be used" for this analysis,[6] EPA long recognized that "it was not technically sound to designate with particularity specific models to be used to assess the impacts of a single source of ozone" or $PM_{2.5}$ and, instead, allowed a permit applicant, working with the permitting authority, to choose a "method" to conduct the required air quality analysis.[7] Despite evaluation, as requested by the Sierra Club, of whether "to designate air quality models for ozone and fine particles ($PM_{2.5}$) for use by all major sources applying for a prevention of significant deterioration (PSD) permit,"[8] EPA concluded that it could not make such designations.[9] EPA should, therefore, have retained the existing requirements applicable to sources emitting precursors of ozone and $PM_{2.5}$.

Although photochemical grid modeling may often be capable of characterizing "[t]he complex chemistry of ozone and secondary formation of $PM_{2.5}$,"[10] EPA recognizes that it remains the case that no single model will be most appropriate for "the diversity in chemical and physical environments across the United States."[11] Selection, justification, and use of a chemical transport model for a specific PSD permit application will be both time-consuming and expensive. Indeed, it could be cost-prohibitive, particularly for smaller sources.[12]

---

[3] 82 Fed. Reg. at 5213 (to be codified at 40 C.F.R. Part 51, Appendix W 5.3.2(c)).

[4] *Id.* at 5193.

[5] Clean Air Act § 165(e)(3)(B), 42 U.S.C. § 7475(e)(3)(B).

[6] *Id.* at (e)(3)(D).

[7] Letter from Gina McCarthy, Assistant Adm'r, Office or Air and Radiation, EPA, to Mr. Robert Ukeiley 2 (Jan. 4, 2012).

[8] *Id.* at 1.

[9] *Id.* at 2.

[10] *Id.*

[11] 82 Fed. Reg. at 5193.

[12] *See, e.g.*, NAT'L. ASS'N. OF CLEAN AIR AGENCIES, $PM_{2.5}$ MODELING IMPLEMENTATION OF PROJECTS SUBJECT TO NATIONAL AMBIENT AIR QUALITY DEMONSTRATION REQUIREMENTS PURSUANT TO NEW SOURCE

What EPA has done, however, is to effectively eliminate the alternative that previously existed of exploring other methods for analyzing the impact of a proposed source on air quality. Although few alternatives may exist, a permit applicant should be free to explore them, as they have in the past.

This is important because, as noted in 2015 by the Interagency Workgroup on Air Quality Modeling Phase 3 ("IWAQM 3"), "at this time, it is not clear that a robust reduced form model exists for either O_3 or secondary $PM_{2.5}$ for the purpose of assessing single source downwind impacts of these pollutants."[13] There have been no significant technical advances in ozone and $PM_{2.5}$ precursor modeling since that 2015 report. Nevertheless, EPA announced in its Response to Comments for the Final Appendix W Rule that it was revising IWAQM 3 to note the existence of screening tools like Model Emission Rates for Precursors ("MERPs").[14] Draft guidance on development of MERPs for ozone and $PM_{2.5}$ was not available, however, until after the Final Appendix W Rule was published. In any case, we do not find MERPs to be "robust," as that screening method still requires further development. The draft guidance outlining MERPs does not, at this point, provide justification for the new approach to air quality analysis of sources of precursors to ozone and $PM_{2.5}$ included in the Final Appendix W Rule.

Therefore, EPA should return to its long-standing prior approach to air quality analysis to support PSD application for sources that emit precursors to these pollutants. At a minimum, the Agency should adopt a moratorium on single-source precursor modeling of at least three years to further develop cost-effective models and screening techniques. EPA can reevaluate the state of technology at the close of that period to determine whether the moratorium should continue.

Low-Wind Speed Over-Prediction

The prior regulatory-default versions of AERMOD and the associated AERMET meteorological model significantly over-predict short-term ambient pollution levels at low wind speeds, as shown by peer-reviewed model evaluation studies.[15] We appreciate that EPA has recognized and sought to address this deficiency in its preferred AERMOD modeling

---

REVIEW 2-5, Jan. 7, 2011 ("[I]t is recognized that photochemical grid models can be resource intensive and require special expertise. As such, it is anticipated that this method will be used mostly for large emitting sources.").

[13] EPA, INTERAGENCY WORKGROUP ON AIR QUALITY MODELING PHASE 3 SUMMARY REPORT: NEAR-FIELD SINGLE SOURCE SECONDARY IMPACTS 3-4, EPA-454/P-15-002, July 2015.

[14] EPA, RESPONSE TO COMMENTS ON THE REVISIONS TO THE GUIDELINE ON AIR QUALITY MODELS: ENHANCEMENTS TO THE AERMOD DISPERSION MODELING SYSTEM AND INCORPORATION OF APPROACHES TO ADDRESS OZONE AND FINE PARTICULATE MATTER 51-52, EPA Docket No. EPA-HQ-OAR-2015-0310-0156 (Dec. 20, 2016) (hereinafter the "Final Appendix W Rule Response to Comments").

[15] *See, e.g.*, BOB PAINE, JEFFRY CONNORS, AND CARLOS SZEMBEK, AERMOD LOW WIND SPEED EVALUATION STUDY: RESULTS AND IMPLEMENTATION, Paper 2010-A-631-AWMA, 2010 (presented at the 103rd Annual Conference and Exhibition of the Air & Waste Management Association).

system.[16] However, the revision that EPA has adopted has not been the subject of public comment. Indeed, we have concerns that the Final Appendix W Rule insufficiently addresses AERMOD's acknowledged excessively high predictions.

LOWWIND

EPA had proposed to incorporate an AERMOD option called LOWWIND3 to address excessively high predicted pollutant concentrations under low wind speed conditions.[17] According to EPA, "[t]he majority of commenters supported the EPA's proposal to incorporate the LOWWIND3 option into the regulatory version of AERMOD because they believed it would provide a more realistic treatment of low wind situations and reduce the potential for overprediction of the current regulatory version of AERMOD for such conditions."[18] However, "one commenter indicated that the proposed LOWWIND3 option in AERMOD will 'reduce model accuracy' . . . ."[19] Citing modeling from this lone commenter, EPA did not include LOWWIND3, or its industry-supported predecessors, LOWWIND1 and LOWWIND2, as options in the revised regulatory default version of AERMOD.[20] This modeling could not have been addressed during the comment period. Other modeling, however, continues to demonstrate the suitability of the LOWWIND options.[21] EPA should promptly make LOWWIND3 an approved Guideline option for AERMOD through the Model Clearinghouse and work to specify through an Appendix W rulemaking when its use would be appropriate.

*ADJ_U**

The Final Appendix W Rule asserts that "EPA is adopting the proposed ADJ_U* option in AERMET as a regulatory option."[22] We appreciate that EPA has done so. However, EPA has effectively confirmed that it has, in fact, adopted a revised, more conservative, version of ADJ_U* in AERMET than had been proposed.[23]

---

[16] 82 Fed. Reg. 5185 (noting "issues with AERMOD model tendency to overprediction from some sources under stable, low wind speed conditions.").

[17] *Id.*

[18] *Id.* at 5187.

[19] *Id.* at 5187-5188.

[20] *Id.* at 5188.

[21] *See, e.g.*, Bob Paine, Olga Samani, Mary Kaplan, Eladio Knipping, and Naresh Kumar, *Evaluation of Low Wind Modeling Approaches for Two Tall-Stack Databases*, 65 J. AIR & WASTE MGMT. ASS'N. 1341 (Mar. 2015); BOB PAINE, CHRISTOPHER WARREN, AND OLGA SAMANI, AERMOD LOW WIND SPEED IMPROVEMENTS: STATUS REPORT AND NEW EVALUATIONS, Paper # 935, 2016 (presented at the 109th Annual Conference and Exhibition of the Air & Waste Management Association).

[22] 82 Fed. Reg. 5187.

[23] E-mail from Rick Gillam, Envt'l Engineer/Air Modeler, EPA Region 4, EPA, to State and Local Modelers (Jan. 4, 2017, 10:28 EST) (on file with author).

Since the Final Appendix W Rule's release, EPA has made additional changes to ADJ_U*.[24] Commenters clearly were unable to comment on all changes to ADJ_U* made since its proposal. Furthermore, the proposed version of ADJ_U* appears to have undergone more testing than the version(s) that EPA has subsequently adopted. That testing showed that it performed well. EPA should reconsider adopting the proposed version of ADJ_U* as regulatory-default.

Overloading of Model Clearinghouse

The Final Appendix W Rule finalizes requirements for formal consultation with the Modeling Clearinghouse and documentation of that consultation whenever an alternative model is used.[25] This requirement will encumber applicants seeking PSD permits. Revisions to Appendix W will increase the number of instances in which the Model Clearinghouse would be required to concur.

For example, EPA has ended the designation of CALPUFF as the regulatory default model for long-range transport, but has not replaced it. As a result, written Model Clearinghouse approval will be required each and every time modeling of long-range transport is performed.[26] As we have previously noted, this can be a time-consuming process.[27]

Although EPA says that the average response time by the Model Clearinghouse to requests it received during the pendency of the Appendix W Rule was 28 days,[28] that figure is misleading. It does not take into account the time that precedes a formal request for Model Clearinghouse approval, which can be considerable. Nor is this process even certain. Notably, two projects went all the way through the alternative model process, obtaining approval from EPA Regional Offices and concurrence from the Model Clearinghouse to use ADJ_U* version 15181, only to have EPA recently announce in a "clarification memo" that such modeling results "would be unreliable."[29]

---

[24] *Id.*

[25] *Id.* at 5197 (to be codified at 40 C.F.R. Part 51, Appendix W 3.2.1(b)).

[26] However, we recognize that CALPUFF can be used as a screening model without Model Clearinghouse approval. 82 Fed. Reg. 5195 (to be codified at 40 C.F.R. Part 51, Appendix W 4.2.1).

[27] NAAQS IMPLEMENTATION COAL., COMMENTS ON EPA'S "REVISION TO THE GUIDELINE ON AIR QUALITY MODELS: ENHANCEMENTS TO THE AERMOD DISPERSION MODELING SYSTEM AND INCORPORATION OF APPROACHES TO ADDRESS OZONE AND FINE PARTICULATE MATTER: PROPOSED RULE" 8, EPA Docket No. EPA-HQ-OAR-2015-0310-0142, Oct. 27, 2015 (citing EPA, MODEL CLEARINGHOUSE: OPERATIONAL PLAN 20 (revised May 1998)) ("Given that written responses from the Model Clearinghouse could take up to four weeks or longer, we would expect that the concurrence memorandum for alternative models proposed in the Appendix W Revision Proposal will require more documentation and take more time than is presently the case.").

[28] Final Appendix W Rule Response to Comments at 87.

[29] Letter from Richard A. Wayland, Div. Dir., Air Quality Assessment Div., EPA, to Reg'l. Air Div. Dir's. 1-10, Clarification on the AERMOD Modeling System Version for Use in SO_2 Implementation Efforts and Other Regulatory Actions 2-3 (Mar. 8, 2017).

EPA should make the approval process more efficient, rather than add additional red tape to the process. One way to achieve this would be to allow permitting agencies – frequently individual states – to determine which model should be used in instances where EPA has been unable to specify a preferred one. This would promote creative thinking about new modeling approaches and enhance the partnership between states and the federal government in implementing the Act.

NO_2 Tier 2 Ambient Ratio Method

The version of the NO_2 Tier 2 Ambient Ratio Method ("ARM2") adopted in the Final Appendix W Rule was modified from the original tool in a way that makes ARM2 unnecessarily conservative.[30] While even the revised ARM2 tool represents an improved Tier 2 screening method to model NO_2, EPA should approve use of the original ARM2.

Probabilistic Modeling

Because tighter margins between background pollutant concentrations and increasingly-stringent NAAQS make it increasingly difficult to demonstrate compliance using overly-conservative modeling assumptions that are increasingly obsolete, EPA should adopt more probabilistic approaches to modeling. For example, modeling should be allowed to take into account the variability of both background air quality and emission rates for modelled sources. While commenters suggested this approach to EPA during consideration of the Final Appendix W Rule,[31] EPA declined to take such action.[32]

CONCLUSION

Because these objections address matters of central relevance to the Final Appendix W Rule, we request that the Administrator partially reconsider it, and revise it in light of the new information herein as well as that to be included in our supplement to this petition. We appreciate your attention to this matter and hope to foster an effective dialogue with EPA as the regulated community continues to face implementation challenges under increasingly more-stringent NAAQS. To that end, we look forward to working with EPA to identify improvements to the Final Appendix W Rule that accomplish efficient NAAQS implementation.

---

[30] *See* 82 Fed. Reg. 5189 (noting that "national default model inputs need to be conservative, in line with the CAA's objective to prevent potential NAAQS violations.").

[31] *See* AM. FOREST & PAPER ASSOC. AND AM. WOOD COUNCIL, COMMENTS ON EPA'S "REVISION TO THE GUIDELINE ON AIR QUALITY MODELS: ENHANCEMENTS TO THE AERMOD DISPERSION MODELING SYSTEM AND INCORPORATION OF APPROACHES TO ADDRESS OZONE AND FINE PARTICULATE MATTER: PROPOSED RULE" 15-18, EPA Docket No. EPA-HQ-OAR-2015-0310-0141, Oct. 27, 2015 (discussing variable emissions).

[32] Final Appendix W Rule Response to Comments at 91.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 04 2017

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Ms. Emily Mueller
Mooresville, North Carolina
ERMueller@roadrunner.com

Dear Ms. Muller:

Thank you for your March 29, 2017, letter to EPA Administrator Scott Pruitt concerning chlorpyrifos.

EPA is denying a petition asking EPA to revoke all pesticide tolerances (maximum residue levels in food) for the pesticide chlorpyrifos under the Federal Food, Drug, and Cosmetic Act and cancel all chlorpyrifos registrations under the Federal Insecticide, Fungicide, and Rodenticide Act.

EPA has concluded that, despite several years of study, the science addressing neurodevelopment effects remains unresolved and that further evaluation of the science during the remaining time for completion of registration review -- the periodic review of existing registered pesticides to ensure they can be used without unreasonable risks to human health and the environment -- is warranted to achieve greater certainty as to whether the potential exists for adverse neurodevelopmental to occur from current human exposures to chlorpyrifos. EPA has therefore concluded that it will not complete the human health portion of the registration review or any associated tolerance revocation of chlorpyrifos without first attempting to come to a clearer scientific resolution on those issues. Congress has provided that EPA must complete registration review by October 1, 2022. Because the 9th Circuit's August 12, 2016 order has made clear, however, that further extensions to the March 31, 2017 deadline for responding to the Petition would not be granted, EPA is today also denying all remaining petition claims.

For more information on the chlorpyrifos tolerance decision, view EPA's news release titled "*EPA Administrator Pruitt Denies Petition to Ban Widely Used Pesticide*" at www.epa.gov/newsreleases/epa-administrator-pruitt-denies-petition-ban-widely-used-pesticide-0 and the "*Order Denying the Petition to Revoke All Tolerances for the Pesticide Chlorpyrifos*" at www.epa.gov/ingredients-used-pesticide-products/order-denying-petition-revoke-all-tolerances-pesticide.

Thank you again for expressing your concerns on this important matter. If you have any other concerns or questions associated with chlorpyrifos, please don't hesitate to contact us though our email box, OPPChlorpyrifosInquiries@epa.gov or leave us a voicemail at 703-347-0206.

Sincerely,

Anne Overstreet
Communication Services Branch
Field and External Affairs Division
Office of Pesticide Programs

Date: Tue Mar 21 09:38:45 EDT 2017
From: Hope.Brian@epamail.epa.gov
To: CMS.OEX@epamail.epa.gov
Subject: FW: Please Ban Chlorpyrifos

FYI to OCSPP

-----Original Message-----
From: Emily's Email [mailto:ERMueller@roadrunner.com]
Sent: Monday, March 20, 2017 1:39 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: Please Ban Chlorpyrifos

Hi Mr. Pruitt,
Thank you for your service to our country by heading up the EPA.

After decades of debate, last year the EPA finally proposed a ban on the toxic organophosphate pesticide chlorpyrifos.

I am requesting that the EPA ban this toxic pesticide once and for all to keep our families healthy and safe from these harmful chemicals.

Sincerely,
Emily Mueller
Mooresville, NC

Sent from my iPhone

Tue Mar 21 09:39:01 EDT 2017
Hope.Brian@epamail.epa.gov
FW: This Toxic Pesticide Has No Business On Our Food
To: CMS.OEX@epamail.epa.gov

FYI to OCSPP

From: Theodore D. Karantsalis [mailto: (b) (6)
Sent: Monday, March 20, 2017 7:20 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: This Toxic Pesticide Has No Business On Our Food

Dear Mr. Pruitt,

Research has linked chlorpyrifos to nervous system damage, behavioral problems and lower IQ in young children whose mothers were exposed during pregnancy. In adults, low-level exposure to chlorpyrifos can cause nausea, headaches and dizziness. Farmworkers and others who are severely exposed have suffered vomiting, muscle cramps, diarrhea, blurred vision, loss of consciousness and even paralysis.

Please ban chlorpyrifos.

Thank you,

Theo Karantsalis

Date: Tue Mar 21 09:40:45 EDT 2017
From: Hope.Brian@epamail.epa.gov
To: CMS.OEX@epamail.epa.gov
Subject: FW: Protect Water From Factory Farm Pollution

FYI to OW

-----Original Message-----
From: Caleb Laieski [mailto: (b) (6)
Sent: Monday, March 20, 2017 9:42 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Cc: Flynn, Mike <Flynn.Mike@epa.gov>; Shapiro, Mike <Shapiro.Mike@epa.gov>; Kenny, Shannon <Kenny.Shannon@epa.gov>; Reeder, John <Reeder.John@epa.gov>; jean.daniel@osec.usda.gov; AgSec@usda.gov; Stephen.Ostroff@fda.hhs.gov
Subject: Protect Water From Factory Farm Pollution

I am writing to urge the EPA to uphold the Clean Water Act and protect America's rivers, streams and groundwater from industrial animal agriculture pollution.

The EPA has named concentrated animal feeding operations as a leading source of water pollution. Waste from these farms is responsible for polluting more than 35,000 miles of rivers in 22 states and groundwater in 17 states in addition to impairing wetlands, lakes and estuaries. This is a serious threat to public health and the environment. But due to extreme under-regulation, industrial animal agriculture remains largely free from accountability for its significant but preventable role in degrading America's indispensable clean water resources.

I urge the EPA to strengthen its regulations of factory farms. Sustaining meaningful oversight of industrial polluters under the Clean Water Act has proven to be an effective method of cleaning up hazardous and polluting industries. I urge the EPA to fulfill its mandate under the Act to close the animal agriculture loopholes and require strong permits with transparent monitoring and reporting to protect water quality and the environment.

Please hold factory farms accountable by requiring permits that are protective and transparent.

Thank you for your time and consideration,

Caleb Laieski

cc:

USDA
FDA

PETITION

To: Environmental Protection Agency

Each year, under the EPA's purview, hundreds of thousands of animals are killed to test chemicals. Not only do animals suffer terribly during the testing, but animal tests have well-known scientific flaws — they are slow and expensive, hampering our ability to detect and restrict the most dangerous chemicals. Plus, differences between species mean that the results of animal tests may not be applicable to humans. **I urge you to make 21st Century Toxicity Testing a reality: update your regulations and policies to require non-animal test methods today.**

Sincerely,

3-12-17

Kent D Laubhan
Alva, OK

Date: Tue Mar 21 12:59:11 EDT 2017
From: Hope.Brian@epamail.epa.gov
To: CMS.OEX@epamail.epa.gov
Subject: FW: EPA Brownfields Grant Program

Daily Reading File

-----Original Message-----
From: Delynn Rutherford [mailto:DRutherford@CityofJeff.net]
Sent: Tuesday, March 21, 2017 11:11 AM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: EPA Brownfields Grant Program

Administrator Pruitt,

Attached you will find a letter asking you to consider keeping the very valuable EPA Brownfields Grant Program. I have worked personally on the Brownfield Assessment Grant Program for the last two years and have seen the redevelopment it has brought to Jeffersonville, Indiana, that we might not have otherwise seen.

Thank you for your time and consideration regarding this program.

Respectfully,

Delynn Rutherford

DeLynn Draper-Rutherford
City of Jeffersonville
Grant Administrator
500 QuarterMaster Court
Jeffersonville, IN 47130
812-280-3802 office
812-216-0863 cell

CITY OF JEFFERSONVILLE

OFFICE OF REDEVELOPMENT

812-285-6406 OFFICE

CITY HALL
500 QUARTERMASTER COURT, ROOM 257
JEFFERSONVILLE, INDIANA 47130

March 21, 2017

Dear Administrator Pruitt:

As member of the local government administration in Jeffersonville, Indiana, I am writing today to urge you to preserve the EPA Brownfields Grant Program. The EPA Brownfields program funds provide the initial environmental investment in a real estate transition, reducing the risk and stimulating redevelopment. This results in job creation and increased tax revenues for our local community.

We have benefited from investment of EPA Grant funding in our community. Jeffersonville received $400K in EPA Brownfields Grant funding in FY15, which we are currently investing in high priority redevelopment targets in our community. One such site is a former factory and adjoining auto body shop. With an investment of $45,500 in brownfields grant funding, we have successfully leveraged a $10M development that includes low income senior housing, as well as commercial property, making a modern, highly needed mixed-use development that will serve as a catalyst for future development in the community.

As is shown above, the EPA Brownfields Grant program has been pivotal in triggering private investment in our community and has proven to be successful. Often, in large cities, the private real estate market takes care of brownfield properties because land is valuable. The risk associated with purchasing a site with unknown environmental cost is offset by the potential of revenue realized by the development. However, in smaller communities such as ours, this is not the case. Brownfields frequently remain vacant, with redevelopment stalled, often due to the lack of knowledge about the environmental conditions of the site, and the higher level of risk associated with investing in a property with unknown environmental hazards. Using the EPA's Brownfield Grant Program funding to clarify the environmental conditions on a property is often the only thing needed to stimulate interest and investment in an otherwise overlooked property.
I understand that cuts to this program are being considered. As a representative of a community where EPA Brownfields Funding has worked, I urge you to do your part to see that this program continues.

Respectfully,

DeLynn Rutherford
Grants Administrator

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 13 2017

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

NOW THE
OFFICE OF LAND AND
EMERGENCY MANAGEMENT

DeLynn Rutherford
Grants Administrator
City of Jeffersonville
500 QuarterMaster Court
Room 257
Jeffersonville, IN 47130

Dear Ms. Rutherford:

Thank you for your letter of March 21, 2017, to the U.S. Environmental Protection Agency. We appreciate your thoughts on EPA's Brownfields program. How heartening to hear that you were able to leverage the Brownfields grant into a highly needed mixed-use development. It's so encouraging to think that it's ready to serve as a catalyst for the future, too. No doubt credit for this belongs largely to local leaders and the local community; thank you for sharing that credit with us.

Again, thank you for your letter. If you have further questions, please contact me or your staff may contact David Lloyd, Director of the Office of Brownfields and Land Revitalization, at Lloyd.davidr@epa.gov or at (202) 566-2777.

Sincerely,

Barry N. Breen
Acting Assistant Administrator

EPA United States Environmental Protection Agency

News Releases from Headquarters

EPA Awards $100 Million to Michigan for Flint Water Infrastructure Upgrades

03/17/2017

Contact Information:
U.S. EPA Media Relations (press@epa.gov)

WASHINGTON – The U.S. Environmental Protection Agency (EPA) today awarded a $100 million grant to the Michigan Department of Environmental Quality to fund drinking water infrastructure upgrades in Flint, Mich. The funding, provided by the Water Infrastructure Improvements for the Nation Act of 2016, or WIIN, enables Flint to accelerate and expand its work to replace lead service lines and make other critical infrastructure improvements.

"The people of Flint and all Americans deserve a more responsive federal government," said EPA Administrator Scott Pruitt. "EPA will especially focus on helping Michigan improve Flint's water infrastructure as part of our larger goal of improving America's water infrastructure."

"I appreciate the EPA approving this funding to assist with Flint's recovery," Michigan Governor Rick Snyder said. "Combined with the nearly $250 million in state funding already allocated, this will help keep Flint on a solid path forward. It's great to see federal, state and local partners continuing to work together to help with infrastructure upgrades and pipe replacements for the people of Flint."

"We are excited and very grateful to receive these much needed funds," said Flint Mayor Karen Weaver. "The City of Flint being awarded a grant of this magnitude in such a critical time of need will be a huge benefit. As we prepare to start the next phase of the FAST Start pipe replacement program, these funds will give us what we need to reach our goal of replacing 6,000 pipes this year and make other needed infrastructure improvements. We look forward to the continued support of the EPA and federal government."

The WIIN funding supplements EPA's Drinking Water State Revolving Fund (SRF), a federal-state partnership. In addition to the federal funds announced today, the State of Michigan is providing the required 20% match of $20 million. Over the years, EPA has provided more than $32.5 billion to states for infrastructure upgrades through the Drinking Water State Revolving Fund.

Under President Trump's budget blueprint SRF remains fully funded, and the proposal provides robust funding for the Water Infrastructure Finance and Innovation Act (WIFIA) program to finance

critical drinking and wastewater infrastructure.

For more information on the grant: www.epa.gov/flint.

R039

LAST UPDATED ON MARCH 17, 2017

Date: Tue Mar 21 12:59:40 EDT 2017
From: Hope.Brian@epamail.epa.gov
To: CMS.OEX@epamail.epa.gov
Subject: FW: Clean Water

-----Original Message-----
From: Robert Schoenfelder [mailto: (b) (6)
Sent: Tuesday, March 21, 2017 10:08 AM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: Clean Water

Dear Mr. Pruitt:

By accepting the post of EPA administrator you are responsible for children?s health. Children were poisoned in Flint, Michigan due to governmental failure.

Sincerely,

Eileen Schoenfelder

Tue Mar 21 12:59:57 EDT 2017
Hope.Brian@epamail.epa.gov
FW: Ban Chlorpyrifos
To: CMS.OEX@epamail.epa.gov

FYI to OCSPP

From: Caleb Laieski [mailto: (b) (6)
Sent: Tuesday, March 21, 2017 10:03 AM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Cc: Flynn, Mike <Flynn.Mike@epa.gov>; Shapiro, Mike <Shapiro.Mike@epa.gov>; Kenny, Shannon <Kenny.Shannon@epa.gov>; Reeder, John <Reeder.John@epa.gov>; jean.daniel@osec.usda.gov; AgSec@usda.gov; Stephen.Ostroff@fda.hhs.gov
Subject: Ban Chlorpyrifos
Importance: High

In November 2016, the Environmental Protection Agency revised its human health risk assessment of chlorpyrifos to show risks from dietary exposure and drinking water.

Given that even small amounts of this pesticide can harm children's brain development, I stand with EWG, Food Revolution Network and Just Label It in demanding that Scott Pruitt uphold the EPA's determination that chlorpyrifos poses an unacceptable risk to public health and ban its use on food crops.

Thank you for your time and consideration,

Caleb Laieski

Tue Mar 21 13:00:12 EDT 2017
Hope.Brian@epamail.epa.gov
FW: This Toxic Pesticide Has No Business On Our Food
To: CMS.OEX@epamail.epa.gov

FYI to OCSPP

From: Janet Rogers [mailto: (b) (6)
Sent: Tuesday, March 21, 2017 9:50 AM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: This Toxic Pesticide Has No Business On Our Food

Research has linked chlorpyrifos to nervous system damage, behavioral problems and lower IQ in young children whose mothers were exposed during pregnancy. In adults, low-level exposure to chlorpyrifos can cause nausea, headaches and dizziness. Farmworkers and others who are severely exposed have suffered vomiting, muscle cramps, diarrhea, blurred vision, loss of consciousness and even paralysis.

The EPA has received thousands of comments supporting its proposed ban on chlorpyrifos. But Pruitt could overturn this effort. We need to act fast and FLOOD Pruitt's office with comments supporting the chlorpyrifos ban.

Tue Mar 21 22:56:34 EDT 2017
Hope.Brian@epamail.epa.gov
FW: EPA Brownfields Grant Program
To: CMS.OEX@epamail.epa.gov

Daily Reading File

From: Mercedes Brugh [mailto:mbrugh@cityoflogansport.org]
Sent: Tuesday, March 21, 2017 4:22 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: EPA Brownfields Grant Program

Dear Administrator Pruitt,

As Deputy Mayor of Logansport, Indiana, I am writing today to urge you to preserve the EPA Brownfields Grant Program. The EPA Brownfields program funds provide the initial environmental investment in a real estate transition, reducing the risk and stimulating redevelopment. This results in job creation and increased tax revenues for our local community.

We have benefited from investment of EPA Grant funding in our community. Logansport was awarded a $686.5K EPA Brownfields Assessment Grant for FY12. 100% of the funds were strategically expended, and to date, we have leveraged $5.77M in additional investment and nearly 100 jobs have been created. For example, grant funding was used to stimulate redevelopment of the L&M Stamping site near our downtown, where $120K in private investment was leveraged and jobs were created. An estimated $925K has been invested in the assessment and demolition of 34 other blighted properties in Logansport. In total, we have leveraged tens of millions of dollars in grant funding to improve streets, sidewalks, greenways, and other infrastructure projects over the past five years to help revitalize the community showing how we are able to use non-local funds to stimulate redevelopment.

As is shown above, the EPA Brownfields Grant program has been pivotal in triggering private investment in our community and has proven to be successful. Often, in large cities, the private real estate market takes care brownfield properties because land is valuable. The risk associated with purchasing a site with unknown environmental cost is offset by the potential of revenue realized by the development. However, in smaller communities such as ours, this is not the case. Brownfields frequently remain vacant, with redevelopment stalled, often due to the lack of knowledge about the environmental conditions of the site, and the higher level of risk associated with investing in a property with unknown environmental hazards. Using the EPA's Brownfield Grant Program funding to clarify the environmental conditions on a property is often the only thing needed to stimulate interest and investment in an otherwise overlooked property.

I understand that cuts to this program are being considered. As a representative of a community where EPA Brownfields Funding has worked, I urge you to do your part to see that this program continues.

Sincerely,

Mercedes Brugh

Deputy Mayor

601 E. Broadway, Suite 200

Logansport, IN 46947

mbrugh@cityoflogansport.org

Phone: 574-753-2551 Ext 230

Fax: 574-753-4644

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 13 2017

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE

NOW THE
OFFICE OF LAND AND
EMERGENCY MANAGEMENT

The Honorable Mercedes Brugh
Deputy Mayor of Logansport
601 East Broadway, Suite 200
Logansport, Indiana 46947

Dear Deputy Mayor Brugh:

Thank you for your email message of March 21, 2017, to the U.S. Environmental Protection Agency. We appreciate your thoughts on the EPA's Brownfields program. I read closely your observation about the Brownfields program's role in providing the only thing needed to stimulate interest and investment in an otherwise overlooked property. How very encouraging that nearly 100 jobs have been created.

Again, thank you for your letter. If you have further questions, please contact me or your staff may contact David Lloyd, Director of the Office of Brownfields and Land Revitalization, at Lloyd.davidr@epa.gov or at (202) 566-2777.

Sincerely,

Barry N. Breen
Acting Assistant Administrator

Tue Mar 21 22:58:42 EDT 2017
Hope.Brian@epamail.epa.gov
FW: Army COE suing us to tear our house down
To: CMS.OEX@epamail.epa.gov

From: Bob Edmondson [mailto: (b) (6)
Sent: Tuesday, March 21, 2017 4:03 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: Army COE suing us to tear our house down

Hello Mr. Pruitt,
We need your help desperately in this matter please. My husband and I have been trying to build a home in Grove, Ok on Grand Lake. Since we are behind the GRDA taking line they told us last year they didn't have a problem with us, but COE might. Our flowage easement says nothing about not being able to build where we have built our home. We live in a populated area with hundreds of houses in COE flowage easement. We received a letter last July 18 from COE telling us to stop building. We did and waited for a resolution, hired a lawyer after a second letter from COE in September continuing to tell us to tear our house down.

In January of this year, after hearing The WIIN Act had passed and was made law and how it gives control of our lake back to GRDA, we decided to finish our house since they didn't have a problem with us and the house we are living in is pending sale. We are now being sued by Army COE for building again and they want us to remove our house, which is now almost done. We have $150,000 in it so far, not counting the money we have lost while waiting. This is our retirement home. We have everything invested in to it.

Judge John Dowdell has been assigned to our case. Please advise us and all help is appreciated.
I am a nurse at our local hospital and my husband has been building our house mostly by himself. We have more than money in it, it has our heart. We have been praying to our almighty God for a swift resolution to this matter.
Thank you for all you do for our Great Country! We want to make America great again too!

I have attached a few pictures of my home. You can see neighbors on both sides of us.
Thank you,
Bob and Janet Edmondson

Tue Mar 21 22:59:31 EDT 2017
Hope.Brian@epamail.epa.gov
FW: EPA corruption in Chicago
To: CMS.OEX@epamail.epa.gov

IG

From: (b) (6) [mailto: (b) (6)
Sent: Tuesday, March 21, 2017 4:37 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: EPA corruption in Chicago

Mr. Scott Pruitt

There is a situation involving the EPA in Chicago that demands your attention.

Marty Watters
(b) (6)

United Airlines' asbestos cover-up: EPA and OSHA officials as stupid as they are corrupt

http://illinoispaytoplay.com/2015/12/14/united-airlines-asbestos-cover-up-epa-and-osha-officials-as-stupid-as-they-are-corrupt/

United Airlines' illegal abatement at former World Headquarters exposing employees to airborne asbestos fibers

http://illinoispaytoplay.com/2015/07/27/united-airlines-illegal-abatement-at-former-world-headquarters-exposing-employees-to-airborne-asbestos-fibers/

http://illinoispaytoplay.com/?s=united+airlines

Sent from Xfinity Connect Mobile App

Wed Mar 22 09:37:39 EDT 2017
Gaines.Cynthia@epamail.epa.gov
FW: Letter from UK's Environment Secretary Andrea Leadsom
To: CMS.OEX@epamail.epa.gov

From: Hope, Brian
Sent: Monday, March 13, 2017 2:23 PM
To: Gaines, Cynthia <Gaines.Cynthia@epa.gov>
Subject: Fw: Letter from UK's Environment Secretary Andrea Leadsom

FYI

From: Dickerson, Aaron
Sent: Wednesday, March 8, 2017 2:24 PM
To: Hope, Brian
Subject: FW: Letter from UK's Environment Secretary Andrea Leadsom

Hi Brian

In case you didn't have this.

From: Nishida, Jane
Sent: Tuesday, March 7, 2017 5:18 PM
To: Jackson, Ryan <jackson.ryan@epa.gov>; Hale, Michelle <hale.michelle@epa.gov>
Cc: Dickerson, Aaron <dickerson.aaron@epa.gov>
Subject: Letter from UK's Environment Secretary Andrea Leadsom

Ryan/Michelle,

We have received congratulatory letter to the Administrator from the UK's Environment Secretary Andrea Leadsom – see attached. There is no request for a meeting/call at this time.

We will prepare a draft acknowledgment/thank you letter for the Administrator's signature. If there is anything else you need, please let us know.

Jane

From: Alison.Conboy@fco.gov.uk [mailto:Alison.Conboy@fco.gov.uk]
Sent: Tuesday, March 07, 2017 9:47 AM
To: Phillips, Anna <Phillips.Anna@epa.gov>
Cc: Thomas.Simchak@fco.gov.uk
Subject: Letter from Andrea Leadsom to Administrator Pruitt

Anna,

The hard copy of this letter should reach you by post, but I wanted to send you a digital copy of this note from Andrea Leadsom MP, the UK's Environment Secretary (Secretary of State for Environment, Food and Rural Affairs), welcoming Administrator Pruitt to his role. I know she looks forward to meeting Mr Pruitt when the time comes.

Kind regards,

Alison

Alison Conboy | Head of Energy and Environment | British Embassy | 3100 Massachusetts Avenue, NW | Washington, D.C. | 20008 | Desk: 1-202-518-3205 | Cell: (b) (6) [redacted] | FTN: 430 3205

The Rt Hon Andrea Leadsom MP
From the Secretary of State

Department
for Environment
Food & Rural Affairs

Nobel House
17 Smith Square
London SW1P 3JR

T 03459 335577
defra.helpline@defra.gsi.gov.uk
www.gov.uk/defra

The Honourable E. Scott Pruitt
Administrator
Environmental Protection Agency
Office of the Administrator 1101A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

3 March 2017

Dear Administrator Pruitt,

I am writing to congratulate you on your recent appointment, and to introduce myself as the UK's Secretary of State for Environment, Food and Rural Affairs. The UK and US have long been allies in environmental protection, and I look forward to continuing this important work together.

I hope we have the opportunity to meet in person in due course, and speak in more detail about our shared priorities.

Once again, please accept my congratulations on your appointment.

Best wishes,

Andrea Leadsom

Andrea Leadsom MP
Secretary of State for the Environment, Food and Rural Affairs

POSITIVE ABOUT DISABLED PEOPLE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

April 3, 2017

THE ADMINISTRATOR

The Honorable Andrea Leadsom, MP
Secretary of State for the Environment, Food and Rural Affairs
Nobel House
17 Smith Square
London SW1P 3JR
UNITED KINGDOM

Dear Minister Leadsom:

Thank you for your kind letter of congratulations on my confirmation as Administrator of the U.S. Environmental Protection Agency. Promoting and protecting a strong and healthy environment are among the lifeblood priorities of the government. I look forward to leading the EPA in this mission.

The United States and the United Kingdom share many of the same priorities and challenges, and we appreciate the strong collaborative relationship that we have established on a range of environmental issues.

I look forward to meeting and working with you and your team.

Respectfully yours,

E. Scott Pruitt

Department
for Environment
Food & Rural Affairs

The Rt Hon Andrea Leadsom MP
From the Secretary of State

Nobel House
17 Smith Square
London SW1P 3JR

T 03459 335577
defra.helpline@defra.gsi.gov.uk
www.gov.uk/defra

The Honourable E. Scott Pruitt
Administrator
Environmental Protection Agency
Office of the Administrator 1101A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

3 March 2017

Dear Administrator Pruitt,

I am writing to congratulate you on your recent appointment, and to introduce myself as the UK's Secretary of State for Environment, Food and Rural Affairs. The UK and US have long been allies in environmental protection, and I look forward to continuing this important work together.

I hope we have the opportunity to meet in person in due course, and speak in more detail about our shared priorities.

Once again, please accept my congratulations on your appointment.

Best wishes,

Andrea Leadsom

Andrea Leadsom MP
Secretary of State for the Environment, Food and Rural Affairs

RECEIVED
2017 MAR 24 AM 11: 12
OFFICE OF THE
EXECUTIVE SECRETARIAT

Veney, Carla

From: Siciliano, CarolAnn
Sent: Tuesday, April 18, 2017 6:31 PM
To: Veney, Carla
Subject: RE: AX-17-000-6623

Yes. I'll send you the email I sent to Mr. Tast last Wednesday. I have not heard back. I think we can close it out.

Carol Ann Siciliano
Associate General Counsel
Cross-Cutting Issues Law Office
Office of General Counsel
U.S. Environmental Protection Agency
(202) 564-5489
siciliano.carolann@epa.gov

From: Veney, Carla
Sent: Tuesday, April 18, 2017 3:16 PM
To: Siciliano, CarolAnn <Siciliano.CarolAnn@epa.gov>
Subject: FW: AX-17-000-6623

Hello, am I able to close this one out? Thanks.

From: Veney, Carla
Sent: Thursday, March 23, 2017 8:48 AM
To: Siciliano, CarolAnn <Siciliano.CarolAnn@epa.gov>
Subject: FW: AX-17-000-6623

Hi Carol Ann, Wendy mentioned that she spoke to you about this correspondence and that it should be assigned to your office. It is due on April 6. Thank you.

From: Veney, Carla
Sent: Thursday, March 23, 2017 7:37 AM
To: Blake, Wendy (Blake.Wendy@epa.gov) <Blake.Wendy@epa.gov>
Subject: AX-17-000-6623

Hi Wendy, should this one be assigned to your office?

Veney, Carla

From: Siciliano, CarolAnn
Sent: Tuesday, April 18, 2017 6:31 PM
To: Veney, Carla
Subject: FW: EPA's jurisdiction around the country

Carol Ann Siciliano
Associate General Counsel
Cross-Cutting Issues Law Office
Office of General Counsel
U.S. Environmental Protection Agency
(202) 564-5489
siciliano.carolann@epa.gov

From: Siciliano, CarolAnn
Sent: Wednesday, April 12, 2017 7:07 PM
To: '(b) (6) ' <(b) (6) >
Subject: EPA's jurisdiction around the country

Dear Mr. Tast – I very much enjoyed speaking with you this evening about EPA's jurisdiction. And, as I mentioned, I enjoyed learning about 4 U.S.C. § 72.

I promised to send you examples from the Clean Water Act that illustrate EPA's jurisdiction throughout the United States. Here is a link to EPA's webpage describing the Clean Water Act: https://www.epa.gov/laws-regulations/summary-clean-water-act

On the right side of that page, you'll find a link to the U.S. Senate's pdf of the Federal Water Pollution Control Act of 1972. That law, which we fondly call the Clean Water Act, was published at 33 U.S.C. § 1251 through § 1387. It's been amended several times, but not since 2002, which is the date of the Senate's pdf version. This statute, which is later in time and very specific in its direction to EPA, supersedes any earlier statute of more general applicability. So, to the extent 4 U.S.C. § 72 (enacted in 1947 to establish the seat of government) may have limited EPA's jurisdiction to the District of Columbia, the more specific 1972 Clean Water Act -- not 4 U.S.C. § 72 -- is controlling law.

Now, for the examples. I love the Clean Water Act, so I have to restrain my enthusiasm in responding to your request. But here are a few examples:

Page 1, Section 101(a): "The objective of the Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

Page 102, Section 303 -- Water Quality Standards and Implementation Plans.

(a)(1) – "SEC. 303. (a)(1) In order to carry out the purpose of this Act, any water quality standard applicable to interstate waters which was adopted by any State and submitted to, and approved by, or is awaiting approval by, the Administrator pursuant to this Act as in effect immediately prior to the date of

enactment of the Federal Water Pollution Control Act Amendments of 1972, shall remain in effect unless the Administrator determined that such standard is not consistent with the applicable requirements of this Act as in effect immediately prior to the date of enactment of the Federal Water Pollution Control Act Amendments of 1972."

Page 103-04, Section 303(c)(2)(A) – "Whenever the State revises or adopts a new standard, such revised or new standard shall be submitted to the Administrator....."

Page 104, Section 303(c)(3) – "If the Administrator, within sixty days after the date of submission of the revised or new standard, determines that such standard meets the requirements of this Act, such standard shall thereafter be the water quality standard for the applicable waters of that State. If the Administrator determines that any such revised or new standard is not consistent with the applicable requirements of this Act, he shall not later than the ninetieth day after the date of submission of such standard notify the State and specify the changes to meet such requirements. <u>If such changes are not adopted by the State within ninety days after the date of notification, the Administrator shall promulgate such standard pursuant to paragraph (4) of this subsection</u>."

Page 221-22, Section 509(b)(1) – "Review of the Administrator's action . . . may be had by any interested person in the Circuit Court of Appeals of the United States for the Federal judicial district <u>in which such person resides or transacts business</u> which is directed affected by such action . . . "

Page 222, Section 510, State Authority.

STATE AUTHORITY
"SEC. 510. Except as expressly provided in this Act, nothing in this Act shall (1) preclude or deny the right of any State or political
subdivision thereof or interstate agency to adopt or enforce (A) any standard or limitation respecting discharges of pollutants, or (B)
any requirement respecting control or abatement of pollution; <u>except that</u> if an effluent limitation, or other limitation, effluent
standard, prohibition, pretreatment standard, or standard of performance is in effect under this Act, <u>such State or political subdivision or interstate agency may not adopt or enforce any effluent limitation</u>, or other limitation, effluent standard, prohibition, pretreatment standard, or standard of performance <u>which is less stringent than the effluent limitation</u>, or other limitation, effluent
standard prohibition, pretreatment standard, or standard of performance <u>under this Act</u>; or (2) be construed as impairing or in any
manner affecting any right or jurisdiction of the States with respect to the waters (including boundary waters) of such States."

Ok, I better stop now.

I hope this helps, Mr. Tast. As a career civil servant, I take very seriously my responsibilities to the American people and the Nation as a whole. Indeed, I and my colleagues believe it is a privilege to serve the American people. Consequently, I am grateful to you for your interest, your creativity and your commitment to our country and the environment. Please don't hesitate to call me if you have any questions.

Best wishes,

Carol Ann Siciliano
Associate General Counsel
Cross-Cutting Issues Law Office
Office of General Counsel
U.S. Environmental Protection Agency
(202) 564-5489
siciliano.carolann@epa.gov

USPS Certified Mail No. 7016 2140 0000 6714 7121

Richard Tast
(b) (6))
3

March 13, 2017

Scott Pruitt
Office of the Environmental Protection Agency
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Re: Challenge Of Jurisdiction

Dear Mr. Pruitt;

I am requesting you to produce the lawful authority, pursuant to federal law, Title **4 USC, §72** , that authorizes you, all agents, and employees of the Environmental Protection Agency, EPA, to exercise authority(jurisdiction) within and over the fifty states of the Union.

Pursuant to **4 USC, §72**, absent the specific law created by the Congress authorizing the EPA to exercise authority within, and over the states of the Union you are restricted to act only within the District of Columbia. Your jurisdiction to exercise authority (jurisdiction) within the geographical Union is hereby challenged[1] . Please produce the specific law required pursuant **4 USC, §72**.

You have thirty(30) days upon receipt of this request to respond. I realize that you are obviously quite busy in your newly appointed position and therefore if additional time is required by you to respond to my request please advise me in writing if such added time is required.

---

[1] "It is well established principle of law that all federal legislation applies only within the territorial jurisdiction of the United States unless a contrary intent appears" [Emphasis added]
[Foley Brothers, Inc. v. Filardo, 336 US 281 (1948)]

"The law requires proof of jurisdiction to appear on the record of the administrative agency and all administrative proceedings" [Hagans v. Lavine, 415 U.S. 528]

"... Federal jurisdiction cannot be assumed, but must be clearly shown."
[Brooks v. Yawkey, 200 F. 2d 633]

In light of our new administration, and President Trump's desire to faithfully and honestly serve the people of this nation, both lawfully and constitutionally I'm sure that you will have no hesitation or reservation(s) to respond to my request.

Respectfully,

Richard Tast

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

APR 07 2017

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

Mr. Stephen K. Norfleet
RMB Consulting & Research, Inc.
5104 Bur Oak Circle
Raleigh, NC 27612

Dear Mr. Norfleet:

Thank you for your letter of March 22, 2017, to U.S. Environmental Protection Agency Administrator Scott Pruitt, requesting the expedited publication of the Mercury Air Toxics Standards (MATS) rulemaking's interim electronic reporting requirements. The Administrator asked that I respond on his behalf.

As you know, this rulemaking not only extends an interim reporting deadline but also corrects two inadvertent errors, regarding mercury measurement quality assurance procedures. Achieving regulatory certainty through cooperative efforts with stakeholders such as the electric utilities represented by your group remains important for protecting our nation's clean air.

As such, the Administrator signed the rulemaking on March 29, 2017, and it was published in the Federal Register on April 6, 2017.

Again, thank you for your letter. I appreciate the opportunity to be of service and trust the information provided has been helpful.

Sincerely,

Jennifer Moore Edwards
for

Steve D. Page
Director
Office of Air Quality Planning
and Standards

cc: Sarah Dunham, Acting Assistant Administrator, Office of Air and Radiation
Peter Tsirigotis, Director, Sector Policies and Programs Division
Bob Schell, Leader, Measurement Policy Group
Barrett Parker, Measurement Policy Group

Date: Wed Mar 22 17:16:34 EDT 2017
From: Hope.Brian@epamail.epa.gov
To: CMS.OEX@epamail.epa.gov
Subject: FW: Request for Expedited Publication of Final Rule to Extend MATS Interim Reporting Period

---

Daily Reading File

-----Original Message-----
From: Steve Norfleet [mailto:norfleet@rmb-consulting.com]
Sent: Wednesday, March 22, 2017 3:59 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>; Dunham, Sarah <Dunham.Sarah@epa.gov>; Page, Steve <Page.Steve@epa.gov>; Tsirigotis, Peter <Tsirigotis.Peter@epa.gov>; Schell, Bob <Schell.Bob@epa.gov>; Parker, Barrett <Parker.Barrett@epa.gov>
Subject: Request for Expedited Publication of Final Rule to Extend MATS Interim Reporting Period

Dear Administrator Pruitt:

On behalf of a group of over 60 utility companies, I have attached a letter requesting expedited publication of a final rule that was signed by the former administrator in January to extend the current MATS interim electronic reporting requirements. The extension is needed because the EPA included an April 16, 2017 deadline for completing an effort, which was requested by numerous utilities, to simplify the MATS reporting requirements. I believe that the Agency thought, when it began the effort in 2014, that the deadline would provide the time needed to complete the changes. However, although proposed revisions to the electronic reporting provisions were published in September 2016, the process has obviously taken longer than EPA originally expected.

The rule extending the interim reporting period does not raise substantial legal or policy questions, but simply represents an action needed to resolve the urgent situation created by the arbitrary deadline currently in the MATS Rule. Even temporarily reverting back to the "original" reporting requirements--which sources essentially have never used since the interim requirements were put into place prior to the compliance deadline--would create significant confusion and inconsistent reporting that would adversely affect both sources and the EPA. From our perspective, it would not make sense for the Agency to acknowledge issues with the original reporting requirements but then to revert back to those requirements simply because it failed to extend a self-imposed deadline. Putting the extension in place would allow both EPA and industry to avoid the cost of implementing the problematic original requirements and ensure the smooth transition that the interim reporting requirements were intended to provide.

Thank you for your consideration. Please let me know if you have any questions regarding this request.

Respectfully,

Stephen K. Norfleet, P. E.
Principal, RMB Consulting & Research, Inc.
(919) 791-3123

RMB Consulting & Research, Inc.
5104 Bur Oak Circle Phone (919) 510-5102
Raleigh, North Carolina 27612 Fax (919) 510-5104

March 22, 2017

The Honorable Administrator E. Scott Pruitt
U.S. EPA (Mail Code: 1101A)
1200 Pennsylvania Avenue, N. W.
Washington, DC 20460

RE: Request to Expedite Publication of Rule to Extend MATS Interim Reporting Period

Dear Administrator Pruitt:

I am writing to request that you expedite the publishing of the final rule that extends the current interim electronic reporting requirements under Subpart UUUUU of 40 CFR Part 63 (a.k.a. the MATS Rule). Prompt publication is necessary to avoid significant confusion and ensure the consistent reporting. I make this request on behalf of an electric utility funded workgroup, which RMB Consulting & Research, Inc. (RMB) is coordinating. The workgroup focuses on addressing MATS related reporting issues. A list of the current utility members of workgroup is found in Attachment A.

Background
On January 9, 2017, then EPA Administrator Gina McCarthy signed a final rule that would extend the period for sources to use the MATS interim reporting requirements while the Agency continues to work on an additional final rule addressing the proposed changes to the MATS electronic reporting requirements. The proposed revisions to the MATS electronic reporting requirements represent an action taken by the Agency at the request of utility industry stakeholders. The utilities found the original MATS reporting requirements to be cumbersome—and, in many cases, redundant—and suggested that the provisions could be simplified and streamlined. EPA agreed that the reporting requirements could be improved, initiated a process of developing new reporting formats and instructions, and put interim reporting requirements in place to replace the problematic original requirements in advance of a further rulemaking that would institute the improved reporting requirements.

The extension is necessary because of an April 16, 2017 deadline that the EPA arbitrarily selected and incorporated in the rule at the beginning of the Agency's effort to streamline the reporting requirements in 2014. I believe, at that time, the Agency assumed that the original deadline provided adequate time to complete the necessary revisions. However, the EPA took longer than expected to make the changes, which were not proposed until September 2016.

While the utility industry has identified various items that could be improved in the proposed MATS reporting requirements, all parties agreed that that the interim reporting period should be extended. No negative comments were submitted opposing an extension—only favorable comments were received in support of extending the interim reporting period. The extension is critical not only to allow the MATS reporting rule and associated reporting instruction to be finalized, but also to permit both the industry and the Agency to implement software changes to address the revisions and to ensure the smooth transition that the interim reporting requirements were intended to provide.

The rule signed in January would have resolved the issues related to the Agency's ill-selected deadline but was caught in the regulatory freeze instituted by the Trump administration shortly after taking office. The regulatory freeze was put in place by a memo issued on January 20, 2017 by Chief of Staff Reince Priebus, which asked the heads of all executive departments and agencies to postpone the publication or the effective date of new or pending regulations to allow the new administration the opportunity to review any "midnight" regulatory actions made by the previous administration that might raise substantial law or policy questions.

The rule extending the interim reporting period does not raise substantial law or policy questions. Instead, it represents an action intended to resolve an urgent situation created by a deadline in the rule. In this case, inaction would create a problem. If the deadline is passed before EPA finalizes the extension, sources will lack certainty over what requirements might apply when the reporting is due.

If the rule extending the interim reporting period is published prior to April 16, 2017, EPA will be able to avoid allowing the interim requirements to lapse. Reverting back to the "original" requirements would be particularly undesirable since the interim reporting provisions were put into place prior to the MATS compliance date. Thus, the interim reporting requirements have effectively been the only MATS reporting requirements that sources have used. Reverting back to the original reporting provisions, even temporarily, would create significant confusion, unnecessary burden, and inconsistent reporting—issues that would adversely impact both sources and the Agency. It would be unfortunate for the EPA to have acknowledged issues with the original reporting requirements but then to revert back to those requirements simply because it failed to extend a self-imposed deadline. The extension is needed to maintain the status quo and is critical for both EPA and industry to avoid the cost of implementing the problematic original requirements.

Requested Action

On behalf of the utility workgroup, I ask that you expedite the publication by the Office of the Federal Register of the final rule signed by the previous EPA Administrator that extends the MATS interim reporting period. Proceeding with the publication of the rule will avoid significant confusion, allow the emissions to continue to be reported in a consistent fashion, and ensure the smooth transition that the EPA intended by instituting the interim reporting requirements. Given the timing, I would also recommend that the effective date of the rule continue to be date that it is published in the *Federal Register*.

Please let me know if you have any questions regarding this request. Thank you for addressing this issue.

Respectfully,

Stephen K. Norfleet, P. E.

cc: Sarah Dunham, Acting Assistant Administrator - Office of Air and Radiation
Steve Page, Director - Office of Air Quality, Planning and Standards
Peter Tsirigotis, Director - Sector Policies and Programs Division
Bob Schell, Group Leader - Measurement Policy Group
Barrett Parker, Measurement Technology Group

Attachment A

The current utility members of RMB's MATS Reporting Workgroup (and the applicable subsidiary operating companies) include:

AEP
- American Electric Power
- American Electric Power Energy
- American Electric Power Ohio
- American Electric Power Texas
- Appalachian Power Company
- Indiana & Michigan Power Company
- Public Service of Oklahoma
- Southwestern Electric Power Company
- Buckeye Rural Electric Cooperative

Alliant Energy
- Interstate Power and Light
- Wisconsin Power and Light

Ameren Missouri
Associated Electric Cooperative, Inc.
Berkshire Hathaway Energy Company
- MidAmerican Energy
- NV Energy
- PacifiCorp

First Energy
- First Energy Generation LLC
- Allegheny Energy Supply LLC
- Monongahela Power Company

GE Power
Great River Energy
Luminant
Minnkota Power Cooperative
NextEra Energy / Florida Power and Light
NiSource
- Northern Indiana Public Service Company (NIPSCO)

NPPD – Nebraska Public Power District
NRG
Ohio Valley Electric Corporation
- Indiana-Kentucky Electric Corporation

Power South Energy Cooperative
PPL
- LG&E
- Kentucky Utilities

Public Service Company of New Hampshire d/b/a Eversource Energy
Dominion Power Generation
Duke Energy
- Duke Energy Carolinas, LLC
- Duke Energy Progress, LLC
- Florida Progress, LLC,
- Duke Energy Florida, LLC
- Duke Energy Ohio, Inc.
- Duke Energy Indiana, LLC

DTE Energy Services
Dynegy, Inc.
- Dynegy Midwest Generation, LLC
- Illinois Power Generating Company
- Illinois Power Resources Generating
- Dynegy Miami Fort, LLC
- Dynegy Zimmer, LLC
- Electric Energy, Inc.
- Kincaid Generation, LLC

Entergy Corporation
- Entergy Arkansas, Inc.
- Entergy Louisiana, LLC

Santee Cooper
Southern Company
- Alabama Power Company
- Georgia Power Company
- Gulf Power Company
- Mississippi Power Company

Salt River Project (SRP)
Sunflower Electric Power Corporation
Talen Generation
Tampa Electric Company
Tri-State G & T
Tennessee Valley Authority (TVA)
WEC Energy Group
- We Energies
- Wisconsin Public Service

Westar Energy, Inc.
Xcel Energy, Inc.
- Northern States Power Company-Minnesota
- Public Service Company of Colorado
- Southwestern Public Service Company

Wed Mar 22 17:17:12 EDT 2017
Hope.Brian@epamail.epa.gov
FW: Joint Letter on EPA GHG Standards
To: CMS.OEX@epamail.epa.gov

Daily Reading File

From: Arthur Marin [mailto:amarin@nescaum.org]
Sent: Wednesday, March 22, 2017 3:28 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: Joint Letter on EPA GHG Standards

Dear Administrator Pruitt:

I am sending you on behalf of the environmental agency heads of Connecticut, Delaware, District of Columbia, Maryland, Massachusetts, New York, Oregon, Pennsylvania, Rhode Island, Vermont, and Washington the attached jointly signed letter urging the U.S. EPA to maintain its “Final Determination on the Appropriateness of the Model Year 2022-2025 Light-Duty Vehicle Greenhouse Gas Emissions Standards.”

Sincerely,

Arthur Marin

Executive Director

NESCAUM

617 259-2017

March 22, 2017

Scott Pruitt
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Mail Code 1101A
Washington, D.C. 20460

Re: 2022-2025 Model Year Light-Duty Vehicle Greenhouse Gas Emission Standards

Dear Administrator Pruitt:

As the environmental agency heads for the states of Connecticut, Delaware, Maryland, Massachusetts, New York, Oregon, Pennsylvania, Rhode Island, Vermont and Washington, and the District of Columbia, we write to urge you to maintain the U.S. Environmental Protection Agency's (EPA's) "Final Determination on the Appropriateness of the Model Year 2022-2025 Light-Duty Vehicle Greenhouse Gas Emissions Standards." While the record suggests that more stringent standards may be appropriate, we agree with EPA's January 13, 2017 decision to keep the current national greenhouse gas (GHG) standards for model year (MY) 2022-2025 to provide automobile manufacturers with regulatory certainty. We also support maintaining these national standards in order to maximize environmental and economic benefits and to ensure that the United States continues as a world leader in advanced vehicles. In addition, we strongly urge you to respect the independent authority of California to implement its own standards and the right of other states to opt into those California standards to meet the environmental challenges we face.

As part of the 2012 rulemaking establishing the MY 2017-2025 light-duty vehicle GHG standards, which the automobile manufacturers strongly endorsed, EPA made a commitment to conduct a Midterm Evaluation of the standards for MY 2022-2025. After conducting a robust evaluation of an extensive technical record and providing multiple opportunities for public input, EPA determined that the standards for MY 2022-2025 are still appropriate under section 202(a) of the federal Clean Air Act. EPA's completion of the Midterm Evaluation ahead of schedule does not provide grounds to reopen or alter EPA's determination, nor does it change the facts supporting the decision. The record clearly shows that technologies needed to meet the standards are here today, automakers are expected to meet the standards at lower costs than previously estimated, and many other technologies in active development may provide even more cost effective compliance options. The record also establishes that the standards will save consumers money on fuels that will then be available to invest in other areas of the economy, provide public health and welfare benefits, and will not negatively impact the economic viability of the automobile industry or vehicle safety.

In addition, we strongly urge you to resist industry lobbying to attempt to revoke the waiver issued to California to implement its own GHG standards. You have often spoken of the importance of states' rights, and the right of California to establish and enforce standards that are needed to meet its environmental challenges is fundamental to the Clean Air Act, as is the right of other states to opt into the California standards. California's authority to adopt its own standards has been recognized for the past half century by EPA Administrators on a bipartisan basis. Any effort to revoke EPA's waiver decision for California's standards would be unprecedented, run afoul of the statutory criteria for granting or denying a waiver in section 209(b) of the federal Clean Air Act, and undermine our state rights. In granting a waiver for California's GHG standards, EPA determined that California met its burden and an even stronger waiver case could be made today. Moreover, our states continue to have broad bipartisan support for the authority Congress granted to states in section 177 of the Clean Air Act to adopt and enforce California standards that are more protective of public health and welfare.

For these reasons, we respectfully request that you preserve EPA's current GHG standards for MY 2022-25 and leave California's waiver intact.

Sincerely,

Robert Klee
Commissioner
Connecticut Department of Energy and Environmental Protection

Shawn Garvin
Secretary
Delaware Department of Natural Resources and Environmental Control

Tommy Wells
Director
D.C. Department of Energy and Environment

Ben Grumbles
Secretary
Maryland Department of the Environment

Martin Suuberg
Commissioner
Massachusetts Department of Environmental Protection

Basil Seggos
Commissioner
New York Department of Environmental Conservation

Richard Whitman
Director
Oregon Department of Environmental Quality

Patrick McDonnell
Acting Secretary
Pennsylvania Department of Environmental Protection

Janet Coit
Director
Rhode Island Department of Environmental Management

Maia Bellon
Director
Department of Ecology
State of Washington

Emily Boedecker
Commissioner
Vermont Department of Environmental Conservation

cc: Christopher Grundler, Director
Office of Transportation and Air Quality
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington. D.C. 20460

Mary Nichols
Chairman
California Air Resources Board
1001 "I" Street
Sacramento, California 95814

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
2565 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105-2498

MAR 2 7 2017

OFFICE OF
AIR AND RADIATION

Maia Bellon
(b) (6)

Dear Ms. Bellon:

Thank you for your letter of March 22, 2017, to U.S. Environmental Protection Agency Administrator Scott Pruitt regarding the Midterm Evaluation Final Determination for model year 2022-2025 greenhouse gas (GHG) standards issued by the EPA on January 12, 2017. The Administrator has asked me to respond to you on his behalf.

On March 13, 2017, EPA Administrator Pruitt and Department of Transportation Secretary Chao signed a *Federal Register* notice announcing EPA's intention to reconsider the Final Determination. In accord with the schedule set forth in EPA's regulations, the EPA intends to make a new Final Determination regarding the appropriateness of the MY 2022-2025 GHG standards no later than April 1, 2018. The *Federal Register* notice and other information regarding the Midterm Evaluation is available at https://www.epa.gov/regulations-emissions-vehicles-and-engines/midterm-evaluation-light-duty-vehicle-greenhouse-gas-ghg.

Again, thank you for your letter and for your continued interest in the Midterm Evaluation. If you have further questions, please contact me or your staff may contact Michael Olechiw at Olechiw.michael@epa.gov or at 734-214-4297.

Sincerely,

William J. Charmley, Director
Assessments and Standards Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
2565 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105-2498

MAR 2 7 2017

OFFICE OF
AIR AND RADIATION

Emily Boedecker
Main Building - 2nd Floor
1 National Life Drive
Montpelier, Vermont 05620-3520

Dear Ms. Boedecker:

Thank you for your letter of March 22, 2017, to U.S. Environmental Protection Agency Administrator Scott Pruitt regarding the Midterm Evaluation Final Determination for model year 2022-2025 greenhouse gas (GHG) standards issued by the EPA on January 12, 2017. The Administrator has asked me to respond to you on his behalf.

On March 13, 2017, EPA Administrator Pruitt and Department of Transportation Secretary Chao signed a *Federal Register* notice announcing EPA's intention to reconsider the Final Determination. In accord with the schedule set forth in EPA's regulations, the EPA intends to make a new Final Determination regarding the appropriateness of the MY 2022-2025 GHG standards no later than April 1, 2018. The *Federal Register* notice and other information regarding the Midterm Evaluation is available at https://www.epa.gov/regulations-emissions-vehicles-and-engines/midterm-evaluation-light-duty-vehicle-greenhouse-gas-ghg.

Again, thank you for your letter and for your continued interest in the Midterm Evaluation. If you have further questions, please contact me or your staff may contact Michael Olechiw at Olechiw.michael@epa.gov or at 734-214-4297.

Sincerely,

William J. Charmley, Director
Assessments and Standards Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
2565 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105-2498

MAR 2 7 2017

OFFICE OF
AIR AND RADIATION

Janet Coit
(b) (6)

Dear Ms. Coit:

Thank you for your letter of March 22, 2017, to U.S. Environmental Protection Agency Administrator Scott Pruitt regarding the Midterm Evaluation Final Determination for model year 2022-2025 greenhouse gas (GHG) standards issued by the EPA on January 12, 2017. The Administrator has asked me to respond to you on his behalf.

On March 13, 2017, EPA Administrator Pruitt and Department of Transportation Secretary Chao signed a *Federal Register* notice announcing EPA's intention to reconsider the Final Determination. In accord with the schedule set forth in EPA's regulations, the EPA intends to make a new Final Determination regarding the appropriateness of the MY 2022-2025 GHG standards no later than April 1, 2018. The *Federal Register* notice and other information regarding the Midterm Evaluation is available at https://www.epa.gov/regulations-emissions-vehicles-and-engines/midterm-evaluation-light-duty-vehicle-greenhouse-gas-ghg.

Again, thank you for your letter and for your continued interest in the Midterm Evaluation. If you have further questions, please contact me or your staff may contact Michael Olechiw at Olechiw.michael@epa.gov or at 734-214-4297.

Sincerely,

Ann's Stroll for

William J. Charmley, Director
Assessments and Standards Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
2565 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105-2498

MAR 27 2017

OFFICE OF
AIR AND RADIATION

Shawn M. Garvin
Richardson and Robbins Building
89 Kings Highway
SW, Dover, Delaware 19901

Dear Mr. Garvin:

Thank you for your letter of March 22, 2017, to U.S. Environmental Protection Agency Administrator Scott Pruitt regarding the Midterm Evaluation Final Determination for model year 2022-2025 greenhouse gas (GHG) standards issued by the EPA on January 12, 2017. The Administrator has asked me to respond to you on his behalf.

On March 13, 2017, EPA Administrator Pruitt and Department of Transportation Secretary Chao signed a *Federal Register* notice announcing EPA's intention to reconsider the Final Determination. In accord with the schedule set forth in EPA's regulations, the EPA intends to make a new Final Determination regarding the appropriateness of the MY 2022-2025 GHG standards no later than April 1, 2018. The *Federal Register* notice and other information regarding the Midterm Evaluation is available at https://www.epa.gov/regulations-emissions-vehicles-and-engines/midterm-evaluation-light-duty-vehicle-greenhouse-gas-ghg.

Again, thank you for your letter and for your continued interest in the Midterm Evaluation. If you have further questions, please contact me or your staff may contact Michael Olechiw at Olechiw.michael@epa.gov or at 734-214-4297.

Sincerely,

William J. Charmley, Director
Assessments and Standards Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
2565 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105-2498

MAR 27 2017

OFFICE OF
AIR AND RADIATION

Beniamin Grumbles
(b) (6)

Dear Mr. Grumbles:

Thank you for your letter of March 22, 2017, to U.S. Environmental Protection Agency Administrator Scott Pruitt regarding the Midterm Evaluation Final Determination for model year 2022-2025 greenhouse gas (GHG) standards issued by the EPA on January 12, 2017. The Administrator has asked me to respond to you on his behalf.

On March 13, 2017, EPA Administrator Pruitt and Department of Transportation Secretary Chao signed a *Federal Register* notice announcing EPA's intention to reconsider the Final Determination. In accord with the schedule set forth in EPA's regulations, the EPA intends to make a new Final Determination regarding the appropriateness of the MY 2022-2025 GHG standards no later than April 1, 2018. The *Federal Register* notice and other information regarding the Midterm Evaluation is available at https://www.epa.gov/regulations-emissions-vehicles-and-engines/midterm-evaluation-light-duty-vehicle-greenhouse-gas-ghg.

Again, thank you for your letter and for your continued interest in the Midterm Evaluation. If you have further questions, please contact me or your staff may contact Michael Olechiw at Olechiw.michael@epa.gov or at 734-214-4297.

Sincerely,

William J. Charmley, Director
Assessments and Standards Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
2565 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105-2498

MAR 27 2017

OFFICE OF
AIR AND RADIATION

Robert J. Klee
(b) (6)

Dear Mr. Klee:

Thank you for your letter of March 22, 2017, to U.S. Environmental Protection Agency Administrator Scott Pruitt regarding the Midterm Evaluation Final Determination for model year 2022-2025 greenhouse gas (GHG) standards issued by the EPA on January 12, 2017. The Administrator has asked me to respond to you on his behalf.

On March 13, 2017, EPA Administrator Pruitt and Department of Transportation Secretary Chao signed a *Federal Register* notice announcing EPA's intention to reconsider the Final Determination. In accord with the schedule set forth in EPA's regulations, the EPA intends to make a new Final Determination regarding the appropriateness of the MY 2022-2025 GHG standards no later than April 1, 2018. The *Federal Register* notice and other information regarding the Midterm Evaluation is available at https://www.epa.gov/regulations-emissions-vehicles-and-engines/midterm-evaluation-light-duty-vehicle-greenhouse-gas-ghg.

Again, thank you for your letter and for your continued interest in the Midterm Evaluation. If you have further questions, please contact me or your staff may contact Michael Olechiw at Olechiw.michael@epa.gov or at 734-214-4297.

Sincerely,

William J. Charmley, Director
Assessments and Standards Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
2565 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105-2498

MAR 27 2017

OFFICE OF
AIR AND RADIATION

Arthur Marin
(b) (6)

Dear Mr. Marin:

Thank you for your letter of March 22, 2017, to U.S. Environmental Protection Agency Administrator Scott Pruitt regarding the Midterm Evaluation Final Determination for model year 2022-2025 greenhouse gas (GHG) standards issued by the EPA on January 12, 2017. The Administrator has asked me to respond to you on his behalf.

On March 13, 2017, EPA Administrator Pruitt and Department of Transportation Secretary Chao signed a *Federal Register* notice announcing EPA's intention to reconsider the Final Determination. In accord with the schedule set forth in EPA's regulations, the EPA intends to make a new Final Determination regarding the appropriateness of the MY 2022-2025 GHG standards no later than April 1, 2018. The *Federal Register* notice and other information regarding the Midterm Evaluation is available at https://www.epa.gov/regulations-emissions-vehicles-and-engines/midterm-evaluation-light-duty-vehicle-greenhouse-gas-ghg.

Again, thank you for your letter and for your continued interest in the Midterm Evaluation. If you have further questions, please contact me or your staff may contact Michael Olechiw at Olechiw.michael@epa.gov or at 734-214-4297.

Sincerely,

William J. Charmley, Director
Assessments and Standards Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
2565 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105-2498

MAR 27 2017

OFFICE OF
AIR AND RADIATION

Patrick McDonnell
Rachel Carson State Office Building
P.O. Box 2063
Harrisburg, Pennsylvania 17105-2063

Dear Mr. McDonnell:

Thank you for your letter of March 22, 2017, to U.S. Environmental Protection Agency Administrator Scott Pruitt regarding the Midterm Evaluation Final Determination for model year 2022-2025 greenhouse gas (GHG) standards issued by the EPA on January 12, 2017. The Administrator has asked me to respond to you on his behalf.

On March 13, 2017, EPA Administrator Pruitt and Department of Transportation Secretary Chao signed a *Federal Register* notice announcing EPA's intention to reconsider the Final Determination. In accord with the schedule set forth in EPA's regulations, the EPA intends to make a new Final Determination regarding the appropriateness of the MY 2022-2025 GHG standards no later than April 1, 2018. The *Federal Register* notice and other information regarding the Midterm Evaluation is available at https://www.epa.gov/regulations-emissions-vehicles-and-engines/midterm-evaluation-light-duty-vehicle-greenhouse-gas-ghg.

Again, thank you for your letter and for your continued interest in the Midterm Evaluation. If you have further questions, please contact me or your staff may contact Michael Olechiw at Olechiw.michael@epa.gov or at 734-214-4297.

Sincerely,

William J. Charmley, Director
Assessments and Standards Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
2565 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105-2498

MAR 27 2017

OFFICE OF
AIR AND RADIATION

Basil Seggos
(b) (6)

Dear Mr. Seggos:

Thank you for your letter of March 22, 2017, to U.S. Environmental Protection Agency Administrator Scott Pruitt regarding the Midterm Evaluation Final Determination for model year 2022-2025 greenhouse gas (GHG) standards issued by the EPA on January 12, 2017. The Administrator has asked me to respond to you on his behalf.

On March 13, 2017, EPA Administrator Pruitt and Department of Transportation Secretary Chao signed a *Federal Register* notice announcing EPA's intention to reconsider the Final Determination. In accord with the schedule set forth in EPA's regulations, the EPA intends to make a new Final Determination regarding the appropriateness of the MY 2022-2025 GHG standards no later than April 1, 2018. The *Federal Register* notice and other information regarding the Midterm Evaluation is available at https://www.epa.gov/regulations-emissions-vehicles-and-engines/midterm-evaluation-light-duty-vehicle-greenhouse-gas-ghg.

Again, thank you for your letter and for your continued interest in the Midterm Evaluation. If you have further questions, please contact me or your staff may contact Michael Olechiw at Olechiw.michael@epa.gov or at 734-214-4297.

Sincerely,

William J. Charmley, Director
Assessments and Standards Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
2565 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105-2498

MAR 2 7 2017

OFFICE OF
AIR AND RADIATION

Martin Suuberg
(b) (6)

Dear Mr. Suuberg:

Thank you for your letter of March 22, 2017, to U.S. Environmental Protection Agency Administrator Scott Pruitt regarding the Midterm Evaluation Final Determination for model year 2022-2025 greenhouse gas (GHG) standards issued by the EPA on January 12, 2017. The Administrator has asked me to respond to you on his behalf.

On March 13, 2017, EPA Administrator Pruitt and Department of Transportation Secretary Chao signed a *Federal Register* notice announcing EPA's intention to reconsider the Final Determination. In accord with the schedule set forth in EPA's regulations, the EPA intends to make a new Final Determination regarding the appropriateness of the MY 2022-2025 GHG standards no later than April 1, 2018. The *Federal Register* notice and other information regarding the Midterm Evaluation is available at https://www.epa.gov/regulations-emissions-vehicles-and-engines/midterm-evaluation-light-duty-vehicle-greenhouse-gas-ghg.

Again, thank you for your letter and for your continued interest in the Midterm Evaluation. If you have further questions, please contact me or your staff may contact Michael Olechiw at Olechiw.michael@epa.gov or at 734-214-4297.

Sincerely,

William J. Charmley, Director
Assessments and Standards Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
2565 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105-2498

MAR 27 2017

OFFICE OF
AIR AND RADIATION

Tommy Wells
(b) (6)

Dear Mr. Wells:

Thank you for your letter of March 22, 2017, to U.S. Environmental Protection Agency Administrator Scott Pruitt regarding the Midterm Evaluation Final Determination for model year 2022-2025 greenhouse gas (GHG) standards issued by the EPA on January 12, 2017. The Administrator has asked me to respond to you on his behalf.

On March 13, 2017, EPA Administrator Pruitt and Department of Transportation Secretary Chao signed a *Federal Register* notice announcing EPA's intention to reconsider the Final Determination. In accord with the schedule set forth in EPA's regulations, the EPA intends to make a new Final Determination regarding the appropriateness of the MY 2022-2025 GHG standards no later than April 1, 2018. The *Federal Register* notice and other information regarding the Midterm Evaluation is available at https://www.epa.gov/regulations-emissions-vehicles-and-engines/midterm-evaluation-light-duty-vehicle-greenhouse-gas-ghg.

Again, thank you for your letter and for your continued interest in the Midterm Evaluation. If you have further questions, please contact me or your staff may contact Michael Olechiw at Olechiw.michael@epa.gov or at 734-214-4297.

Sincerely,

William J. Charmley, Director
Assessments and Standards Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
2565 PLYMOUTH ROAD
ANN ARBOR, MICHIGAN 48105-2498

MAR 2 7 2017

OFFICE OF
AIR AND RADIATION

Richard Whitman
(b) (6)

Dear Mr. Whitman:

Thank you for your letter of March 22, 2017, to U.S. Environmental Protection Agency Administrator Scott Pruitt regarding the Midterm Evaluation Final Determination for model year 2022-2025 greenhouse gas (GHG) standards issued by the EPA on January 12, 2017. The Administrator has asked me to respond to you on his behalf.

On March 13, 2017, EPA Administrator Pruitt and Department of Transportation Secretary Chao signed a *Federal Register* notice announcing EPA's intention to reconsider the Final Determination. In accord with the schedule set forth in EPA's regulations, the EPA intends to make a new Final Determination regarding the appropriateness of the MY 2022-2025 GHG standards no later than April 1, 2018. The *Federal Register* notice and other information regarding the Midterm Evaluation is available at https://www.epa.gov/regulations-emissions-vehicles-and-engines/midterm-evaluation-light-duty-vehicle-greenhouse-gas-ghg.

Again, thank you for your letter and for your continued interest in the Midterm Evaluation. If you have further questions, please contact me or your staff may contact Michael Olechiw at Olechiw.michael@epa.gov or at 734-214-4297.

Sincerely,

William J. Charmley, Director
Assessments and Standards Division

March 22, 2017

RECEIVED
2017 MAR 29 AM 11:18
OFFICE OF THE
EXECUTIVE SECRETARIAT

Scott Pruitt
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Mail Code 1101A
Washington, D.C. 20460

Re: 2022-2025 Model Year Light-Duty Vehicle Greenhouse Gas Emission Standards

Dear Administrator Pruitt:

As the environmental agency heads for the states of Connecticut, Delaware, Maryland, Massachusetts, New York, Oregon, Pennsylvania, Rhode Island, Vermont and Washington, and the District of Columbia, we write to urge you to maintain the U.S. Environmental Protection Agency's (EPA's) "Final Determination on the Appropriateness of the Model Year 2022-2025 Light-Duty Vehicle Greenhouse Gas Emissions Standards." While the record suggests that more stringent standards may be appropriate, we agree with EPA's January 13, 2017 decision to keep the current national greenhouse gas (GHG) standards for model year (MY) 2022-2025 to provide automobile manufacturers with regulatory certainty. We also support maintaining these national standards in order to maximize environmental and economic benefits and to ensure that the United States continues as a world leader in advanced vehicles. In addition, we strongly urge you to respect the independent authority of California to implement its own standards and the right of other states to opt into those California standards to meet the environmental challenges we face.

As part of the 2012 rulemaking establishing the MY 2017-2025 light-duty vehicle GHG standards, which the automobile manufacturers strongly endorsed, EPA made a commitment to conduct a Midterm Evaluation of the standards for MY 2022-2025. After conducting a robust evaluation of an extensive technical record and providing multiple opportunities for public input, EPA determined that the standards for MY 2022-2025 are still appropriate under section 202(a) of the federal Clean Air Act. EPA's completion of the Midterm Evaluation ahead of schedule does not provide grounds to reopen or alter EPA's determination, nor does it change the facts supporting the decision. The record clearly shows that technologies needed to meet the standards are here today, automakers are expected to meet the standards at lower costs than previously estimated, and many other technologies in active development may provide even more cost effective compliance options. The record also establishes that the standards will save consumers money on fuels that will then be available to invest in other areas of the economy, provide public health and welfare benefits, and will not negatively impact the economic viability of the automobile industry or vehicle safety.

In addition, we strongly urge you to resist industry lobbying to attempt to revoke the waiver issued to California to implement its own GHG standards. You have often spoken of the importance of states' rights, and the right of California to establish and enforce standards that are needed to meet its environmental challenges is fundamental to the Clean Air Act, as is the right of other states to opt into the California standards. California's authority to adopt its own standards has been recognized for the past half century by EPA Administrators on a bipartisan basis. Any effort to revoke EPA's waiver decision for California's standards would be unprecedented, run afoul of the statutory criteria for granting or denying a waiver in section 209(b) of the federal Clean Air Act, and undermine our state rights. In granting a waiver for California's GHG standards, EPA determined that California met its burden and an even stronger waiver case could be made today. Moreover, our states continue to have broad bipartisan support for the authority Congress granted to states in section 177 of the Clean Air Act to adopt and enforce California standards that are more protective of public health and welfare.

For these reasons, we respectfully request that you preserve EPA's current GHG standards for MY 2022-25 and leave California's waiver intact.

Sincerely,

Robert Klee
Commissioner
Connecticut Department of Energy and Environmental Protection

Shawn Garvin
Secretary
Delaware Department of Natural Resources and Environmental Control

Tommy Wells
Director
D.C. Department of Energy and Environment

Ben Grumbles
Secretary
Maryland Department of the Environment

Martin Suuberg
Commissioner
Massachusetts Department of Environmental Protection

Basil Seggos
Commissioner
New York Department of Environmental Conservation

Richard Whitman
Director
Oregon Department of Environmental Quality

Patrick McDonnell
Acting Secretary
Pennsylvania Department of Environmental Protection

Janet Coit
Director
Rhode Island Department of Environmental Management

Maia Bellon
Director
Department of Ecology
State of Washington

Emily Boedecker
Commissioner
Vermont Department of Environmental Conservation

cc: Christopher Grundler, Director
Office of Transportation and Air Quality
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington. D.C. 20460

Mary Nichols
Chairman
California Air Resources Board
1001 "I" Street
Sacramento, California 95814

From:	Bennett, Isabella
To:	(b) (6)
Subject:	RE: Farmers Need Chlorpyrifos
Date:	Friday, March 31, 2017 2:26:00 PM

Dear Mr. Monson:

Thank you for your March 23, 2017, email to EPA Administrator Scott Pruitt regarding chlorpyrifos. For more information on chlorpyrifos, view EPA's news release titled "*EPA Administrator Pruitt Denies Petition to Ban Widely Used Pesticide*" at www.epa.gov/newsreleases/epa-administrator-pruitt-denies-petition-ban-widely-used-pesticide-0 and the "*Order Denying the Petition to Revoke All Tolerances for the Pesticide Chlorpyrifos*" at www.epa.gov/ingredients-used-pesticide-products/order-denying-petition-revoke-all-tolerances-pesticide.

Please feel free to contact us with any more chlorpyrifos related concerns or questions at our chlorpyrifos email box, OPPChlorpyrifosInquiries@epa.gov or call 703-347-0206.

Sincerely,
Anne Overstreet

Communication Services Branch
Field and External Affairs Division
Office of Pesticide Programs

Thu Mar 23 09:22:18 EDT 2017
Hope.Brian@epamail.epa.gov
FW: Farmers need Chlorpyrifos
To: CMS.OEX@epamail.epa.gov

Daily Reading File

From: Doug Monson [mailto:d (b) (6)]
Sent: Thursday, March 23, 2017 2:23 AM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: Farmers need Chlorpyrifos

Dear Adminstrator fo the U.S. EPA Scott Pruitt,

The news that EPA plans to move forward with the Chlorpyrifos; Tolerance Revocation process is disappointing. As a Minnesota soybean farmer, there are fewer and fewer options for us to control soybean aphids and spider mites, two of the major pests threatening soybean yields in the state.

A major outbreak of soybean aphids can cut down my yield by 40 percent. A major outbreak of spider mites could do even more damage to soybean yields.

We used to rely on Organophosphates (Chlorpyrifos), Pyrethroids and Neonicotinoids. These days, we're seeing resistance to pyrethroids in our state, namely to bifenthrin and lambda-cyhalothrin. Additionally, neonicotinoids are also under attack in Minnesota, with Gov. Mark Dayton essentially banning the use of these chemicals due to concerns with its effect on pollinators. Additionally, Sufloxaflor was denied a label for use on soybeans due to pollinator concerns.

We're losing options to combat these pests, and there are a limited number of varieties available to plant in Minnesota. Currently, the University of Minnesota is developing multiple levels of genetic resistance to be used in all maturity groups grown in the state, but it will be several years before these will be available. Furthermore, biological control using insect diseases and insect predators is inconsistent at best.

The court-ordered deadline for the decision is March 31, leaving us insufficient time to adjust for this year's growing season. If the EPA recommends revocation of the Chlorpyrifos, Minnesota farmers will be left to battle soybean aphids and spider mites with little more than a feather. I urge you to keep Chlorpyrifos in our inventory and give farmers the best chance to protect our crops.

Regards,
Doug Monson
106 Caron Dr
Mankato, MN 56001

SOM
UAF SCHOOL OF MANAGEMENT

School of Management
University of Alaska Fairbanks
201 Bunnell Building • P.O. Box 756080
Fairbanks, Alaska 99775-6080
907 474-7461 • FAX 907 474-5219
www.uaf.edu/som

AACSB ACCREDITED

March 10, 2017

Brian T. Hope
Acting Director, U.S. EPA
OR Scott Pruit
The United States Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

RECEIVED
2017 MAR 23 PM 1:03
OFFICE OF THE
EXECUTIVE SECRETARIAT

Dear U.S. EPA Director or Designate:

Thank you for retuning my book and letter with your explanation, all of which are enclosed, of why you had to return it back to me. I appreciate your thoroughness in this matter. However, I would like to disagree with your interpretation of the law. Please consider the following.

According to my union contract, which is a federally enforceable contract under federal labor laws, there is stated on page 8, Article 6 under Academic Freedom and Responsibility the following:

6.1 The University and United Academics agree that academic freedom is essential to the mission of the University and that providing an environment of free and honest inquiry is essential to its functioning. Nothing contained in this Agreement shall be construed to limit or abridge any individual's right to free speech or to infringe upon the academic freedom of any member of the University community.

And

6.3 The University of Alaska and United Academics endorse the "1940 Statement of Principles on Academic Freedom and Tenure with 1970 Interpretive Comments," issued by the American Association of University Professors and the Association of American Colleges, ...

Furthermore, the American Association of University Professors (AAUP) the "1940 statement of Principles on Academic Freedom and Tenure," is the following:

P. 14, 1st column:
Also, there have been relevant developments in the law itself reflected a growing insistence by the courts on due process within the academic community which parallels the essential concepts of the 1940 "Statement" particularly relevant is the identification of the supreme court of academic freedom as a right protected by the first amendment. As the Supreme Court said in Keyishian v. board of regents, 385, U.S. 589 (1967), "Our nation is deeply committed to safeguarding academic freedom, which is of transcendent value to all of us and not merely to the teachers concerned. That freedom is therefore a special concern of the First Amendment, which does not tolerate laws that cast a pall of orthodoxy over the classroom."

And by extension over expert opinion of professors in their field of endeavor.

And P. 14 #1.:
Teachers are entitled to full freedom in research and in the publication of the results, ...
And by extension to show the published results to representatives of society such as yourself.

And P. 14 3.:
College and university teachers are citizens, members of a learned profession and officer of an educational institution. When they speak or write as citizens, they should be free from institutional censorship, ..."

By stating that this book is a gift, you have effectively censored my Academic Freedom to explain the facts of any research to you. This is a violation of my first amendment rights of free speech in the context of my "academic responsibility" to my community as a learned professor of energy economics.

There is no other way to explain my research and the importance of my research in your decision making process then by sending this book. I cannot explain the book in words, given our distance and the time involved, I cannot organize the book into a PDF format to send to you. I am under the responsibility of academic freedom to explain as a scholar, and as an academic and educational officer to society and its representatives, of which would include you, the facts about what can happen to society if there is not enough oil and there are bottlenecks in getting that oil.

Sincerely yours,

Douglas B. Reynolds

Dr. Douglas B. Reynolds
Professor of Oil and Energy Economics

School of Management programs in business administration and accounting are accredited by
AACSB International - The Association to Advance Collegiate Schools of Business

The Future of Proven Oil Reserves

by Douglas B. Reynolds
University of Alaska Fairbanks Economics Department

As posted on the International Association of Energy Economics (IAEE)
and the United States Association of Energy Economics (USAEE) website:
http://www.usaee.org/feeds.aspx;
Energy News: Today's Headlines (as of October 17, 2016)

The usual explanations for the decline and fall of the Roman Empire include such things as political corruption, inflation of the currency and the heightened incursions of the barbarians. However, Fagan (2004) gives a more compelling reason that may explain the Ward-Perkins (2006) data on the reduction in the production of Roman Baths starting in the Northern Regions of Rome. What Fagan says is that weather patterns changed with a slow cooling starting in northern Europe and moving south. Furthermore, this cooling made it such that northern Roman regions could no longer produce as much wheat as before but instead had to produce millet, which was more resilient to the cooler wetter weather but which also reduced the productivity of those regional farms. This transition from wheat to millet reduced the output of the Roman economy and in turn the tax base from which Rome could collect, which weakened the state and resulted in the *Crisis of the Third Century*. This slow decline and fall of Rome is in stark contrast to the very striking decline and fall of the Soviet Union as explained in Reynolds (2016) where a peak in oil production is the clear and decisive factor of its collapse.

However, the surprising fact about the Soviet Empire's history is not so much that the Soviet Union fell (officially twenty five years ago on December 25, 2016) as much as it survived for over 70 years in the first place. This suggests that the rise and fall of the Soviet Union has more to tell us about economics than meets the eye. One explanation that may help explain Communist history is the stroke of luck behind Soviet economic expansionary success: the abundance of Soviet energy resources available, particularly oil resources. However, the bane of the USSR's economic demise was Soviet peak oil as Reynolds (2000) and Reynolds and Kolodziej (2008) explain. This means that oil production often increases at first but then decreases—i.e. there is a tendency for a peak in oil production as Soviet peak oil attests—which is a very powerful economic force in any economy. This is the Hubbert (1956a) curve, which needs to be considered forthrightly by all economists.

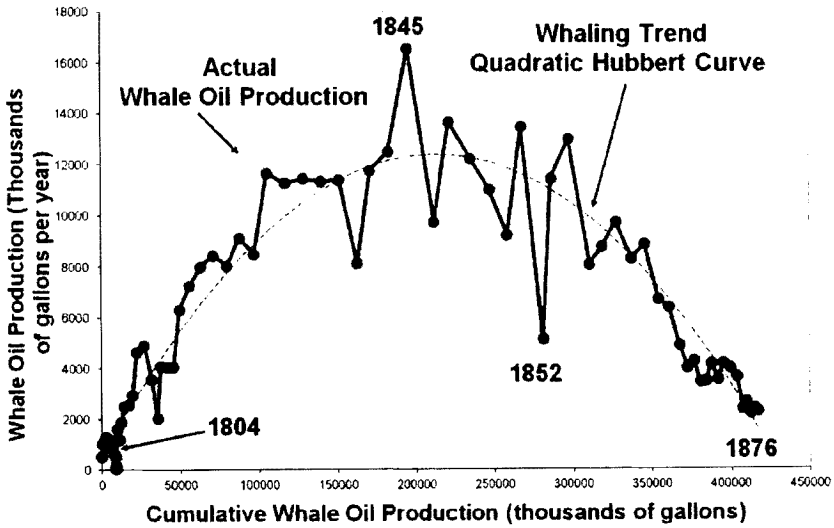


Figure 1, Hubbert Curve Example: Whale Oil Production in the 19th Century vs. Cumulative Production (Bardi 2007)

Fortunately, today the world does not appear to be close to any peak in oil production as the supply has increased by roughly 10% since 2009, contrary to Reynolds (1999b) initial prediction. This gives credence to resource optimists such as Adelman and Lynch (1997), Simon (1998), Lynch (2002), Brandly (2004), Bartlett (2004), Maugeri (2004) and Jahoda et. al (1973) that technology and economic innovation can overcome any scarcity of natural resources including energy scarcity. Resource pessimists such as Deffeyes (2001), Goodstein (2004), Hall and Klitgaard (2012) and Bardi (2011) still contend that resource scarcity—particularly oil scarcity—will pose a problem for the economy. Plus, Reynolds (2011) shows that, so far, most civilizations, up to and including the Soviet Empire, have not successfully overcome a peak in energy supply, although, one can argue that Russia carried on after the fall of the Soviet Union with new technology. Still, it is clear that post Soviet Russia had to endure a substantial reduction in its standard of

living, as did Rome in its day and as we are likely to do in our day. Indeed, we may have already begun to experience economic decline as Cowen (2011) explains.

Nevertheless, many energy economists do not believe in peak oil even though the economic theory behind the Hubbert curve is well established in Reynolds (2009 and 1999a), with empirical and experimental work in Bardi (2005 and 2007) and Jakobsson et. al (2012) although, ameliorated with the idea that multi-cycles can and do exist (see M. King Hubbert 1962, p. 55, Hubbert 1956b, p. 10-11, Reynolds 2014; Reynolds and Zhao 2007, and Reynolds and Kolodziej 2009). I show the theoretical game in class. Therefore, the Hubbert curve theory should actually be in every textbook. Notwithstanding theory, this debate on oil scarcity is relevant again now that the latest estimate of proven oil reserves for the U.S., as posited by Nysveen (2016) and reported in Tencer (2016), which shows quite an increase in reserves, is bantered about. While the estimates of world oil reserves still suggest that eventually we will attain limits to growth due to oil scarcity, it also gives hope to resource optimists that there is still plenty of oil, particularly shale oil, for the foreseeable future by which time nuclear fusion or some other energy technology will create a new era of abundance.

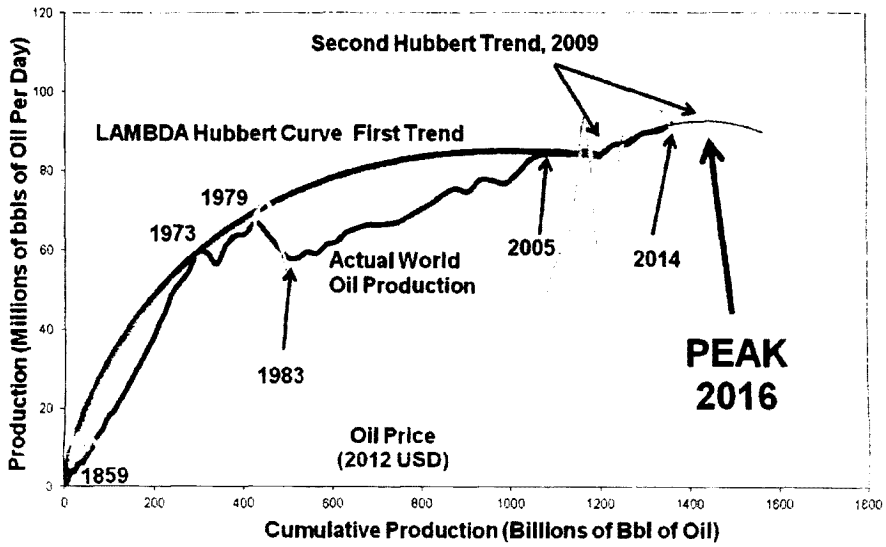


Figure 2, World Peak Oil After the Start of the Second Hubbert Trend (Reynolds 2015 and 2014)

Looking closely at the Nysveen reserve estimate, the evidence suggests that the U.S. has more oil reserves now than either Saudi Arabia or Russia, depending on what the true Saudi and Russian reserves are. While the new larger estimate may be accurate due to shale oil technology, giving resource optimists a fact upon which to hang their hat, there is nevertheless some confusion about what U.S. reserves really consist of. For example, one of the interesting aspects about this debate is the question of what oil is. That may sound like an unnecessary question since everyone believes they know what oil is, but it can be a more nuanced question than you think.

Consider past oil and gas statistics. According to DeGolyer and McNaughton (1979), in 1920 the U.S. produced 1.2 million barrels per day (MBD) of oil, which included about 2% of natural gas liquids (NGL). By 1950, the US production was close to 6 MBD and NGLs consisted of 8.4% of the total. By 1970 we were at 11.3 MBD with NGLs consisting of 14.6%. Also according to EIA (2002), the NGL production in the U.S. went from about 15% of total oil in 1970 to 25% in 2000. Lately liquid petroleum gas (LPG) has gone from 14% of the combined gasoline and LPG consumption in 2008 to 21% of combined consumption by 2014. Not only that, but over the last decade LPG production and consumption have increased by 22% even as LPG prices have decreased. In contrast, gasoline consumption has decreased by 3% partly due to high gasoline prices. That being the case, why has there recently been, relatively, so much LPG supply availability, even though its price has been low, and so little gasoline supply availability, even though its price has been high?

In addition, since about 1950, NGLs and crude oil were often put together into one statistic often called "oil." That method of comingling the identity of liquids production saves a lot of confusion for the general public so that they did not have to become petrochemical experts just to be able to understand basic oil market statistics, which can and do affect the economy. In addition, other economic agents, such as gas station chains that might buy oil futures for a certain purpose or bakeries that use propane or fuel oil and have to make contracts, also like a simple oil statistic. In general, NGLs were not a large part of the oil and gas market and were therefore assumed to be able to be melded together into a general oil market statistic. Then NGLs and LPGs could be priced at a certain percentage below a given WTI oil price, which worked well as long as there was plenty of mid-weight crude oil to go around.

But now we have shale oil, and shale oil is not always high valued mid-weight crudes of oil but often includes lower valued light crudes and NGLs. So that brings us to the statistic that the U.S. has 264 billion barrels of oil reserves. The question is, what are those reserves exactly? Are they natural gas liquids with a lot of propane or are they more valuable mid-weight crudes or both? This

is like asking the question, was Ancient Rome producing more wheat or more millet in 250 A.D.? Even though they sound the same and are measured in the same way, they are in fact quite different from a nutritional point of view and, more pertinently, from an economic point of view. The question becomes important because oil was just recently at a $100 per barrel price ($16.6 per mmbtu) at the same time when propane was selling for $1 per gallon (or $10 per mmbtu); an energy price differential of about 60% and a price differential that still persists, with oil recently at $8 per mmBtu and propane at $5 per mmBtu. The U.S. oil reserves statistics, then, make it sound as if the U.S. has 264 billion barrels of valuable mid-weight crude oil, period, when it could be that we have mostly less valuable NGLs. This is an important point and it goes to the heart of the question of whether peak oil is real or not.

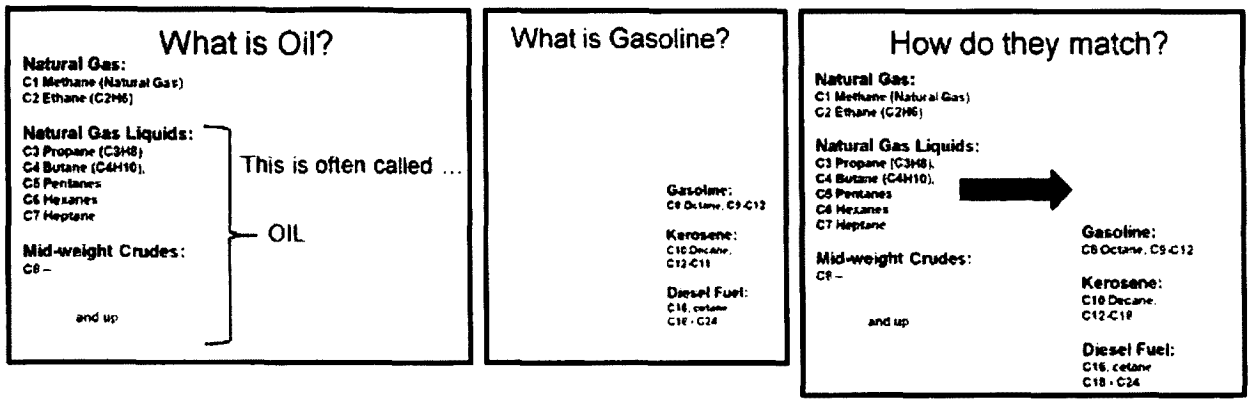


Figure 3, The Chemical/Refining Transformation from Oil to Gasoline

The problem is that not many people in the general economy are going to understand the nuance between NGLs and mid-weight crude oil, kind of like trying to decipher and understand the nuance between a Rembrandt and a Vermeer work of art. Although the difference in painting can be hard to decipher, the difference in price at an auction can be quite substantial. Likewise, the difference between NGLs, light crudes and mid-weight crudes can make a big difference in economic productivity. Even some pentane and hexane hydrocarbons are going to be difficult to use for producing motor gasoline in the summer, which makes an even murkier oil reserves picture. Peak oil may not be peak oil after all, it may be peak mid-weight crudes, but most people will not comprehend the difference or the significance.

On the one hand, we know that Germany, Turkey and other locations use propane and even butane for automotive fuels so it does seem rather easy to be able to use light crudes for transportation purposes and, therefore, that NGLs, light-crudes and mid-weight crudes are all oil. However, there will need to be major infrastructure adjustments to be able to use propane and butane for automotive travel. Furthermore, important machinery, such as farm machinery, will not easily be able to use such fuels, and this can make farms or other economic entities less effective. This can reduce the productivity of the economy, and the transition is likely to be jerky rather than smooth.

On the other hand, you can always use pure natural gas (methane) to run automobiles, although, as Flynn (2002) shows, natural gas propulsion systems have so far not been very successful. For example, Utah (Krauss 2008) appeared on the surface to have put up a successful natural gas vehicle fuel system, but upon close inspections the details show the realities of long lines, waiting for fill-ups and a lack of supplies at crucial times. Such systems often encounter bottlenecks, due to the high costs of the infrastructure to provide the fuel, that gasoline and diesel systems have never had to contend with since the days of the 1970s oil crisis. Bottlenecks in supply, and other distribution problems may be worthwhile if the fuel is cheap, but that implies a cost to economic efficiency which is the whole point of resource scarcity.

Some might also argue that most if not all NGLs can be made into gasoline and diesel products using such process as hydrocracking, alkylation, polymerization and dehydrogenation, although as A. Abazajian (2016) shows these processes can be expensive and can have bottlenecks associated with them. Plus new gasolines from NGLs often have less BTUs per gallon and are more volatile chemically and so require chemical stabilizers. Alternatively, some engineers envision using propane or natural gas self-driving cars that can fill-up all night long in order to be prepared for the rush hour traffic in the morning, like an army of taxi drivers. What is missing is the idea that these systems, too, have their problems. For example, Queenan (2016) brings up the idea that these cars can be hacked and made to kidnap you, or worse yet, they can all be remotely commandeered to drive right into the propane or natural gas filling stations in order to strategically destroy infrastructure.

They also require significant economies of scale. When you have large economies of scale, you get a natural monopoly that tends to become socially inefficient. For example Vanderbilt's New York Railroad, Gates' Microsoft and Rockefeller's Standard Oil all had one thing in common, they built innovative, cost effective products, but they made most of their money by gaining monopolies in their respective markets. At first, such monopolies are good for society creating innovation and reducing costs, but later on they become less effective. Regulation and government ownership are two solutions to reducing monopoly costs, but those solutions are not necessarily efficient as governments are slow to reduce bottlenecks within such systems whether as a regulator or as an owner.

People may think that electric cars like Tesla's will lead the way, but compared to a Tata Nano, a Tesla, even if its price can be reduced by half, could not compete; and theoretically if a Tesla can be made cheaper, than so can a Tata Nano. The only reason the

Tesla is in any way competitive now is because the average American automobile is over-priced with features that are unneeded, but which could be removed with little harm, such as super-sized engines with super sized cabins. Indeed, we may have a car bubble.

So, it's not a question of what energy is possible to use, but a question of what economic costs will be involved in changing over to a new energy system, as the Soviet Union itself shows. In the Soviet Union's case, there was a decisively quick peak and decline of its primary energy resource, oil, and then its economy fell. In Ancient Rome's case, there was a more nuanced slow motion peak and decline of its primary energy resource—wheat—that caused its economic crisis. We will probably encounter something between the Soviet case and the Roman case probably faster than Rome's fall but possibly a bit slower than that of the Soviet Union's fall. Although, given the fact that many conventional oil fields can decline as fast as 7% per year and that shale oil fields can decline as fast as 30% per year, and can experience severe bottlenecks when the industry tries to increase shale production, then the Soviet case could be the closer case study than the Roman case. Nevertheless, in both situations there was hyperinflation (which I would define as anything faster than about a 30% increase in price levels per year, contrary to the text book definition of anything greater than 30% per month), which can help loosen restrictive labor markets during such a crisis. This makes the Energy Information Administration's job, never mind the Federal Reserve's job, the Treasury Department's job and the U.S. Mint's job, quite the challenge. Regardless, society must be prepared for hyperinflation, although, such hyperinflation could help reduce social unrest and recessionary fatigue as it did in post-Soviet Union.

References

A. Abazajian, Advisian, (2016). "Consider high-value outlets for propane and butane," Worley-Parsons Group, Houston, Texas; Found on the Web 08/16/2016, at Gas Processing News: http://www.gasprocessingnews.com/features/201606/consider-high-value-outlets-for-propane-and-butane.aspx .

Adelman, M.A. and M.C. Lynch (1997). "Fixed View of Resource Limits Creates Undue Pessimism," *Oil and Gas Journal*, April 7, pp. 51 - 54.

Bardi, Ugo (2011). *The limits to growth revisited*, Energy series: springerbriefs in energy analysis. Springer Energy Series.

Bardi, Ugo (2007). "Energy Prices and Resource Depletion: Lessons from the case of Whaling in the 19th Century. *Energy Sources B: Economics planning and policy*, Volume 2, Issue 3, Pages: 297-304.

Bardi, Ugo, (2005). "The mineral economy: a model for the shape of oil production curves," *Energy Policy*, Volume 33, Issue 1 , January 2005, Pages 53-61.

Bartlett, Bruce, (2004). "Doom-and-Gloomers say we're near tapped-out of oil. Rubbish," *Alexander's Gas and Oil Connections*, Volume 9, Issue #13, June 29th, 2004, http://www.gasandoil.com/goc/features/fex42632.html.

Brandly, Mark, (2004). "Will We Run Out of Energy?" Blog, May 19, http://www.mises.org/fullstory.asp?control=1519 .

Cowen, Tyler (2011). *The Great Stagnation: How America Ate All The Low-Hanging Fruit of Modern History, Got Sick, and Will (Eventually) Feel Better*, Dutton Publisher.

Deffeyes, Kenneth, (2001). *Hubbert's Peak: The Impending World Oil Shortage*, Princeton University Press, Princeton, New Jersey.

DeGolyer, E.L. and L.W. MacNaughton, (1979). *Twentieth Century Petroleum Statistics 1979*, DeGolyer and MacNaughton, Dallas, TX.

Energy Information Administration (2002). EIA, Petroleum Supply Monthly (February 2003).

Fagan, Brian, M. (2004). *The Long Summer: How Climate Changed Civilization*, Basic Books, New York.

Flynn, Peter C. (2002), "Commercializing an alternate vehicle fuel: lessons learned from natural gas for vehicles," *Energy Policy*, Volume 30, pp. 613–619.

Goodstein, David, (2004). *Out of Gas: The End of the Age of Oil*, W.W. Norton and Company, New York, 128 pages.

Hall, Charles A. S. and Kent A. Klitgaard, (2012). *Energy and the Wealth of Nations: Understanding the Biophysical Economy*, 1st Edition., 2012, XIV, 407 p. Springer Energy Series.

Hubbert, M. King, (1962). *Energy Resources: A Report to the Committee on Natural Resources: National Academy of Sciences*, National Research Council Publication 1000-D, Washington D.C.

Hubbert, M. King, (1956a). "Nuclear Energy and Fossil Fuels," API Drilling & Production Practices. p. 17.

Hubbert, M. King, (1956b). "Nuclear Energy and Fossil Fuels," Publication #95, Shell Development Company, Exploration and Production Research Division, Houston Texas, June.

Jahoda, Marie, K. L. R. Pavitt, H. S. D. Cole, Christopher Freeman (Editors), (1973). *Models of Doom: A Critique of the Limits to Growth*, Universe Publishing.

Jakobsson, Kristofer, Bengt Söderbergh, Simon Snowden, Chuan-Zhong Li, and Kjell Aleklett (2012). "Oil exploration and perceptions of scarcity: The fallacy of early success." *Energy Economics*, Elsevier, vol. 34, number 4, pages 1226-1233.

Krauss, Clifford, (2008). "Surge in Natural Gas Has Utah Driving Cheaply," published August 29, 2008. Associated Press.

Lynch, Micheal C., (2002). "Forecasting Oil Supply: Theory and Practice." *Quarterly Review of Economics and Finance*, vol. 42, no. 2 pp. 373 - 389.

Maugeri, Leonardo. (2004). "Oil: Never Cry Wolf—Why The Petroleum Age Is Far From Over." *Science*, vol. 304, no. 21, May: pp. 1114 - 1115.

Nysveen, Per Magnus (2016). "United States now holds more oil reserves than Saudi Arabia," July 04, 2016, Head of Analysis, Rystad Energy.

Queenan, Joe (2016). "Self-Driving Cars Could Drive Us Crazy," Moving Targets Column, *Wall Street Journal*, Volume 268, No. 37, Page C11.

Reynolds, Douglas B., (2016). *Cold War Energy: The Rise and Fall of the Soviet Union*, sole author self-published academic monograph, Alaska Chena, 120 pages.

Reynolds, Douglas B. (2015). "Peak Oil May Be Imminent," *IAEE Energy Forum*, Fourth Quarter, 2015, pp. 13 – 16.

Reynolds, Douglas B., (2014). "World Oil Production Trend: Comparing Hubbert Multi-Cycle Curves," Ecological Economics, Volume 98 (2014) pp. 62–71.

Reynolds, Douglas B., (2011). *Energy Civilization: The Zenith of Man*, sole author self-published academic monograph, Alaska Chena, 440 pages.

Reynolds, Douglas B., (2009). Chapter 1, "Oil Supply Dynamics: Hubbert, Risk and Institutions," In: Pitt, Edward R. and Christopher N. Leung, Editors, *OPEC, Oil Prices And LNG*, ISBN:978-1-60692-897-4, Nova Science Publishers, Inc.

Reynolds, Douglas B. (2000). "Soviet Economic Decline: Did an Oil Crisis Cause the Transition in the Soviet Union," *Journal of Energy and Development*, Volume 24, Number 1, pp. 65-82.

Reynolds, Douglas B. (1999a). "The Mineral Economy: How Prices and Costs Can Falsely Signal Decreasing Scarcity," *Ecological Economics*, Volume 31, Number 1, pp. 155-166.

Reynolds, Douglas B. (1999b). "Oil Scarcity Should Be a Concern," USAE Dialogue, Volume 7, number 1, pp. 12-13.

Reynolds, Douglas B. and Marek Kolodziej, (2009). "North American Natural Gas Supply Forecast: The Hubbert Method Including the Effects of Institutions," *Energies* 2009, 2(2), 269-306.

Reynolds, Douglas B. and Marek Kolodziej, (2008). "Former Soviet Union Oil Production and GDP Decline: Granger Causality and the Multi-Cycle Hubbert Curve" *Energy Economics*. Volume 30, pp. 271-289.

Reynolds, Douglas B. and Yuanyuan Zhao (2007). "The Hubbert Curve and Institutional Changes: How Regulations in Alaska Created a U.S. Multi-Cycle Hubbert Curve," in *The Journal of Energy and Development*, Volume 32, Number 2, Spring 2007, pp. 159-186.

Simon, Julian L. (1998). *The Ultimate Resource 2*, Princeton University Press.

Tencer, Daniel (2016). Take A Number, Alberta Oilsands: U.S. Now Has World's Largest Oil Reserves, The Huffington Post Canada, Posted: 07/07/2016 4:47 pm EDT, Updated: 07/07/2016 5:59 pm EDT

Ward-Perkins, Bryon (2006). *The Fall of Rome: and the End of Civilization*. Oxford University Press, Oxford.

COLD WAR ENERGY

The Rise and Fall of the Soviet Union

by Douglas B. Reynolds

Douglas B. Reynolds
Professor Oil and Energy Economics
School of Management
University of Alaska Fairbanks
303 Tanana Dr., Rm 201,
PO box 756080
Fairbanks, Alaska 99775-6080

All rights reserved

ISBN-10: 0-692-63061-9

ISBN-13: 978-0-692-63061-7

Alaska Chena LLC, 158 Berkeley Ct. Fairbanks, Alaska 99709-3027

©Douglas B. Reynolds 2016
All rights reserved. This work may not be translated or copied in whole or in part without the written permission of the publisher (Alaska Chena LLC, 158 Berkeley Ct. Fairbanks, Alaska 99709-3027), except for brief excerpts in connection with review or scholarly analysis. Use in or by similar or dissimilar methodology now known or hereafter developed is forbidden. The use in this publication of trade names, trademark, services marks, and similar terms even if they are not identified as such, is not to be taken as an expression of opinions as to whether or not they are subject to property rights.

Abst

"Nothing is the cause. All this is only the coinci
elemental

War and
Leo

Every great empire, from the Roman
Empire, has had, at its economic heart, an
ability to produce, transport, and use goo
move, run, or work in any economy, particul
in the 20th century the Western powers lea
have been equally true that the Soviet Eas
its Cold War threats credible. Indeed, ene
economics in general and understanding t
in particular, from the challenging era of
era of Sputnik and to the expansionist era
and integral to understanding Soviet econ
economic growth. However, if what goe
production went up and then down, then
considered as a factor in the incredible ris
Empire. This is a peak oil case study. In t
economy relied on energy every bit as mu
today and how the Union of Soviet Soci
a cohesive and synergetic economic/ener
oriented, Western centric economic/energ

The book begins by providing an ov
the fall of the Soviet Union, including an
quo hypothesis promoted by many econ
the Soviet Union happened—that it was
at the Soviet Empire's economic history j
growth and decline occur in general an
Asia specifically. Then we will explore
orthodoxy, often called neo-classical grow
In contrast to neo-classical economics,
based engineering and biophysical system
analysis, which includes the concepts o
in order to model how economies grow
planned economies. The book also goes i
and physical reasons for why peak oil oc

A fundamental problem for the economies of Eastern Europe and the Soviet Union was the decline in Russian oil production. Russia was the main oil producer for the communist countries, and its production decline starting in 1988 pushed the economies of the Soviet Empire over the brink of disaster, and into collapse. What is more, the oil production decline did not stop with the break up but continued until 1996, exacerbating the economic problems of Russia and the former states. Certainly much of Soviet economic stagnation in the 1970's and 1980's was caused by a lack of innovation. Possibly military defense spending played a role in furthering the economic collapse, and Gorbechev and his policy of glasnost were a big factor in changing Soviet society since this allowed people to feel free to react politically and express their desire to change communist rule. However, the straw that broke the camel's back and that ultimately caused the decline and fall of the Soviet Union was an oil shortage.

"Not only has the bourgeoisie forged the weapons that bring death to itself; it has also called into existence the men who are to wield those weapons — the modern working class — the proletarians. In proportion as the bourgeoisie, i.e., capital, is developed, in the same proportion is the proletariat, the modern working class, developed — a class of laborers, who live only so long as they find work, and who find work only so long as their labor increases capital. "

Manifesto of the Communist Party
By Karl Marx and Friedrich Engels

Published by Alaska Chena
© Douglas B. Reynolds
March 2016
Fairbanks, Alaska, USA
All Rights Reserved
ISBN: 978-0-692-63061-7

NATIONAL ASSOCIATION OF
Manufacturers

Jay Timmons
President and CEO

RECEIVED
2017 MAR 23 PM 1:03
OFFICE OF THE
EXECUTIVE SECRETARIAT

March 17, 2017

The Hon. Scott Pruitt
Administrator
Environmental Protection Agency
1200 Pennsylvania Ave, NW
Washington, D.C. 20004

Dear Administrator Pruitt,

Thank you for taking the time to speak with the National Association of Manufacturers' Board of Directors in Arizona at our Spring Meeting. Your remarks were impressive and, as I am sure you could tell, very well received by our Board. We were encouraged by your vision for a better, smarter EPA.

Our members greatly appreciated your straightforward approach to fixing the broken regulatory environment in Washington. It is refreshing and reassuring to hear from an EPA administrator who truly understands that overreaching regulations restrict economic growth and hurt manufacturing jobs. As manufacturers, we know we can achieve responsible environmental stewardship alongside robust economic growth. It is clear that you share that view.

Thank you again for speaking with our Board. We look forward to the chance to work closely with you and a more collaborative EPA going forward.

With gratitude, I remain,

Sincerely,

Jay

Jay Timmons

733 10th Street NW, Suite 700 • Washington, DC 20001 • P 202.637.3043 • F 202.637.3460 • www.nam.org

WILLIAM D. KOPPER
322 Leon Place
Davis, CA 95616
(530) 756-1418
March 17, 2017

RECEIVED
2017 MAR 23 PM 1:03
OFFICE OF THE
EXECUTIVE SECRETARIAT

Mr. Scott Pruitt
Administrator
U.S. Environmental Protection Agency
Mail Code 1101A
1200 Pennsylvania Avenue NW
Washington D.C. 20004

Dear Mr. Pruitt:

I have taken the liberty to send you a book by Joseph Romm, *Climate Change, What Everyone Needs to Know*. Since this book cost about $8.00, the gift should not run afoul of the federal rules that limit gifts to federal employees.

I am sending you this book because it explains the science of climate change in an understandable manner, and provides a thorough discussion of the research and data that support the finding that carbon emissions are causing global warming.

Almost all climate scientists agree that human-generated carbon emissions are causing global warming. This is the scientific consensus. It is very rare that the scientific consensus is wrong. Only once in my lifetime, and I am a lot older than you, has the scientific consensus changed on a major issue. Geologists had long believed that the continents developed separately, but in the sixties they determined that the land masses were all joined and then split apart.

There is a lot more evidence supporting the scientific consensus on global warming than was available on how the continents on earth were formed. As a prosecutor, I am sure that you constantly relied upon data developed through the scientific consensus to prove your cases. DNA evidence is not something that one can see, but you were able to use it as proof because of the scientific consensus that it is reliable.

There is a huge risk in ignoring the scientific consensus on climate change. Your children and grandchildren may live in a world that cannot support life. Many scientists state that now is our last chance to limit the impacts of global warming. Do you think the risk of ignoring the scientific consensus is worth taking for the possible economic benefits of increased carbon fuel extraction and consumption?

William D. Kopper

CLIMATE CHANGE

WHAT EVERYONE NEEDS TO KNOW®

JOSEPH ROMM

OXFORD
UNIVERSITY PRESS

Oxford University Press is a department of the University of Oxford. It furthers the University's objective of excellence in research, scholarship, and education by publishing worldwide.

Oxford New York
Auckland Cape Town Dar es Salaam Hong Kong Karachi
Kuala Lumpur Madrid Melbourne Mexico City Nairobi
New Delhi Shanghai Taipei Toronto

With offices in
Argentina Austria Brazil Chile Czech Republic France Greece
Guatemala Hungary Italy Japan Poland Portugal Singapore
South Korea Switzerland Thailand Turkey Ukraine Vietnam

Oxford is a registered trademark of Oxford University Press in the UK and certain other countries.

Published in the United States of America by
Oxford University Press
198 Madison Avenue, New York, NY 10016

© Oxford University Press 2016

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, without the prior permission in writing of Oxford University Press, or as expressly permitted by law, by license, or under terms agreed with the appropriate reproduction rights organization. Inquiries concerning reproduction outside the scope of the above should be sent to the Rights Department, Oxford University Press, at the address above.

You must not circulate this work in any other form
and you must impose this same condition on any acquirer.

Library of Congress Cataloging-in-Publication Data
Romm, Joseph.
Climate change : what everyone needs to know / Joseph Romm.
pages cm.—(What everyone needs to know)
Includes index.
ISBN 978-0-19-025017-1 (paperback)
1. Climatic changes—Health aspects. 2. Climatic changes—Economic aspects. 3. Human beings—Effect of climate on. 4. Global warming. I. Title.
RA793.R66 2015
363.738'74—dc23
2015020730

7 9 8 6
Printed in Canada
on acid-free paper

To Antonia

LARSON · O'BRIEN LLP

Robert C. O'Brien
Direct: (213) 436-4865
robrien@larsonobrienlaw.com

March 22, 2017

VIA OVERNIGHT DELIVERY

RECEIVED
2017 MAR 24 AM 6:07
OFFICE OF THE
EXECUTIVE SECRETARIAT

The Honorable Scott Pruitt
Administrator
Environmental Protection Agency
Office of the Administrator, Mail Code: 1101A
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Re: *United States, et al. v. HVI Cat Canyon, Inc.*, United States District Court, Central District of California Case No. CV 11-05097 FMO (SSx)

Dear Administrator Pruitt:

We write in order to inform you of a troubling enforcement action that is being pursued on behalf of your agency by the Department of Justice. Career attorneys from the DOJ and the EPA are explicitly rejecting the specific direction articulated by President Trump in his February 28, 2017 Executive Order Restoring The Rule Of Law, Federalism, And Economic Growth By Reviewing The "Waters Of The United States" Rule (the "Executive Order") and the notice of "Intention to Review and Rescind or Revise the Clean Water Rule" (the "Notice of Intent") that you jointly published in the Federal Register with the Assistant Secretary of the Army for Civil Works. *See* Intention To Review and Rescind or Revise the Clean Water Rule, 82 Fed. Reg. 12532-01.

Additionally, in pursuing this case under your predecessor, regulators from the EPA and its partner, the State of California, have engaged in what can only be described as outrageous misconduct. Such conduct is outlined in the enclosed letter sent to Attorney General Sessions and Acting Assistant Attorney General Wood, which further explains the details of this case.

Prior to this case, we had never witnessed government lawyers who exhibited this level of conscious disregard for the orders of the President of the United States and his Cabinet members. Because you are responsible for implementing the President's environmental policy initiatives, and because this enforcement action is being pursued on behalf of your agency, we felt it was necessary to inform you of these troubling events.

We seek your immediate intervention in this case so that you can end the resistance to and obstruction of President Trump's Executive Order and your Notice of Intent. As we requested of General Sessions, this case should be dismissed or, at a minimum, suspended. We would welcome the opportunity to meet with you and your senior team in-person in Washington, D.C., to further discuss this matter.

Of course, please do not hesitate to contact me with any questions or comments regarding the foregoing or the content of the enclosed letter.

Best regards.

Very truly yours,

Robert C. O'Brien

Stephen G. Larson

RCO:mv

Enclosure

LARSON · O'BRIEN LLP

Robert C. O'Brien
Direct: (213) 436-4865
robrien@larsonobrienlaw.com

March 21, 2017

VIA OVERNIGHT DELIVERY

The Honorable Jefferson Sessions
Attorney General of the United States
United States Department of Justice
950 Pennsylvania Ave., NW
Washington, DC 20530-0001

The Honorable Jeffrey H. Wood
Acting Assistant Attorney General of the United States
United States Department of Justice
Environment and Natural Resources Division
950 Pennsylvania Ave., NW
Washington, DC 20530-0001

Re: *United States, et al. v. HVI Cat Canyon, Inc.*, United States District Court, Central District of California Case No. CV 11-05097 FMO (SSx)

Dear General Sessions and Mr. Wood:

We write in order to bring to your attention deeply troubling conduct by career Department of Justice lawyers in the Environment and Natural Resources Division that is an explicit rejection of the new policies announced by President Trump and EPA Administrator Pruitt. This conduct is inexplicable, except as a decision by these lawyers to reject the specific direction articulated by President Trump in his February 28, 2017 Executive Order Restoring The Rule Of Law, Federalism, And Economic Growth By Reviewing The "Waters Of The United States" Rule (the "Executive Order").[1] As we have never before encountered such a blatant disregard of the official direction of the President of the United States among government lawyers, we feel compelled to ask that you put an end to the willful obstruction of President Trump's announced policies by dismissing this case over which the United States has no jurisdiction. Alternatively, we ask that the United States suspend the prosecution of the case until the EPA and Army Corps of Engineers (the "Corps") complete the review and rulemaking initiated by the Executive Order.

In summary, HVI Cat Canyon, Inc. ("HVI-CC") seeks your intervention in this matter because:

- Department of Justice trial attorneys are resisting the Executive Order and subsequent administrative proceedings in an effort to enforce Obama-era regulations that have been enjoined by the federal courts;

[1] The principal lawyers for the Department of Justice on this matter are Mark Sabath (Washington, D.C.), Richard Gladstein (Washington D.C.), Angela Mo (Washington, D.C.), and Davis Forsythe (Denver, Colorado).

- The Department of Justice has continued to pursue this enforcement action despite the fact that the United States' co-party, the State of California, has been sanctioned for the widespread spoliation of significant evidence, including the destruction of emails and wiping of computer hard drives;
- At least one EPA official in this case, the United States' key witness, falsified documents in order to assert federal jurisdiction and made wrongful threats against HVI-CC's executives in a clear abuse of authority, yet the Department of Justice continues to rely on his testimonial and documentary evidence.

This litigation arises out of the alleged discharge of heavy, tar-like oil (mainly used to make asphalt for roads in California) from HVI-CC's isolated production facilities in Santa Barbara County, California into dry drainage ditches that are located on private property dozens of miles inland and that only carry water a handful of days a year following significant rain events. The EPA, represented by attorneys from the Department of Justice, has asserted that these dry drainage ditches are "navigable waters" within the meaning of the Clean Water Act ("CWA"). Despite the facial unreasonableness of this position, and the fact that the President's recent Executive Order expressly disavows the legal arguments it is based on, trial counsel from the Department of Justice have pressed forward with an enforcement action seeking millions of dollars in penalties and response costs.

To be clear, any discharges from HVI-CC's facilities were cleaned up to the satisfaction of the United States and the State of California many years ago. Nonetheless, the trial team from the Department of Justice has continued to pursue this enforcement action in an effort to punish HVI-CC by obtaining burdensome injunctive relief that is far beyond what current law requires and imposing crippling financial penalties that will bankrupt the company (and which HVI-CC has demonstrated it is unable to pay).

Viewed in isolation, the actions of trial counsel from the Department of Justice in this matter make little sense. Why, for instance, would a trial team from the Department of Justice willfully undermine the clear policy vision of the President of the United States? As is usually the case, context is key.

This enforcement action is the culmination of a nearly decade-long campaign by the EPA, aided by a trial team from the Department of Justice, to regulate and litigate HVI-CC out of existence—a campaign which has cost HVI-CC millions of dollars in attorneys' fees and is exhausting its resources. The money HVI-CC has expended on this litigation should have been used to enhance business operations and employ even more local workers. Instead, numerous employees, many of them Californians of Hispanic heritage, have lost their jobs due to the conduct of the Department of Justice.

With the goal of bankrupting HVI-CC and ending its operations once and for all within reach, it is clear that the trial team from the Department of Justice is willing to do anything, up to and

including ignoring the President's Executive Order and defending clearly unethical behavior, in order to win its war of attrition.

A. Attorneys from the Department of Justice are Contravening the President's Executive Order by Attempting to Enforce the WOTUS Rule

As you are aware, under the Obama Administration, the EPA and the Corps attempted to substantially expand their jurisdiction under the CWA. These efforts included the promulgation of the so-called Waters of the United States Rule (the "WOTUS Rule"). Among other things, the WOTUS Rule purported to allow the EPA and the Corps to assert jurisdiction over a waterbody if that waterbody, when combined with all other similarly situated waterbodies in the area, shared a significant nexus with a traditional navigable water.

The unprecedented expansion of CWA jurisdiction envisioned by the WOTUS Rule drew widespread and fervent criticism. Indeed, while serving as a Senator for Alabama, General Sessions cosponsored a congressional resolution to nullify the WOTUS Rule, which passed both House of Representatives and the Senate before President Obama exercised his power to veto that legislation.

Fortunately, the Sixth Circuit Court of Appeals enjoined the WOTUS Rule, preventing its formal enforcement. Despite the Sixth Circuit's injunction, however, the EPA, acting with and through the Department of Justice, has continued to inappropriately and prejudicially enforce the principles underlying the WOTUS Rule against HVI-CC. Indeed, trial counsel from the Department to Justice, along with the United States' experts, have crafted their theory of federal jurisdiction in this case by relying on novel principles first articulated in the WOTUS Rule.

For instance, in support of a currently-pending motion for summary judgment, trial lawyers from the Department of Justice submitted materials prepared by their jurisdictional expert, Dr. Lyndon Lee. In support of the United States' motion for summary judgment, Dr. Lee contends that the ecological significance of the rainfall drainages at issue should not be analyzed on a drainage-by-drainage or tributary-by-tributary basis. Instead, Dr. Lee argues that the court should analyze the aggregate ecological effect of each drainage at issue and *all similarly situated* drainages in the watershed when deciding the issue of jurisdiction. While the WOTUS Rule allowed for the aggregation of similarly situated tributaries, the Department of Justice's trial team has been unable to provide *any other authority* justifying CWA jurisdiction on this basis.

The thinly-veiled efforts of the EPA and the Department of Justice to enforce an administrative rule that has been enjoined by a federal court are concerning in and of themselves. HVI-CC has already been severely prejudiced by the fact that it must defend itself against a standard that is no longer good law. But the actions of the attorneys representing the Department of Justice in this matter are even more disturbing because they directly contradict the stated policy of the current Presidential Administration.

On February 28, 2017, recognizing the problems inherent in the WOTUS Rule, President Trump issued an Executive Order directing the Administrator of the EPA (the "Administrator") and the Assistant Secretary of the Army for Civil Works (the "Assistant Secretary") to review the WOTUS Rule and to "publish for notice and comment a proposed rule rescinding or revising the rule, as appropriate and consistent with the law." The Executive Order further directs the Administrator and Assistant Secretary to consider defining the term "navigable waters" in a manner consistent with the plurality opinion authored by Justice Scalia in *Rapanos v. United States*, 547 U.S. 715 (2006).

On March 6, 2017, the Administrator and the Assistant Secretary published a notice of "Intention to Review and Rescind or Revise the Clean Water Rule" (the "Notice of Intent") in the Federal Register, "providing advanced notice of a forthcoming proposed rulemaking consistent with the Executive Order" and reiterating the agencies' commitment to "consider[ing] interpreting the term 'navigable waters,' as defined in the CWA in a manner consistent with the opinion of Justice Scalia in *Rapanos*." Intention To Review and Rescind or Revise the Clean Water Rule, 82 Fed. Reg. 12532-01.

It is beyond dispute that the United States' claims against HVI-CC will fail if the EPA and the Corps adopt the standard articulated by Justice Scalia in *Rapanos*. In *Rapanos*, Justice Scalia definitively held that " 'the waters of the United States' include only relatively permanent, standing or flowing bodies of water." *Rapanos*, 547 U.S. at 732. Although he did not "necessarily exclude streams, rivers, or lakes that might dry up in extraordinary circumstances" or "*seasonal* rivers, which contain continuous flow during some months of the year but no flow during dry months," Justice Scalia did categorically exclude from regulation " 'intermittent' and 'ephemeral' streams . . . that is, streams whose flow is '[c]oming and going at intervals . . . [b]roken, fitful' . . . or 'existing only, or no longer than, a day; diurnal . . . short-lived . . . .' " *Id.* at 733 n.5 (emphasis in the original).

The rainfall drainages in this case are unquestionably the very types of "ephemeral streams" that Justice Scalia expressly excluded from regulation under the CWA. The drainages only carry water for, at most, between two and five days a year and, on the rare day when they do flow, each drainage contributes less than one percent of the water in the nearest traditional navigable water. Thus, if the EPA and the Corps follow the direction of the President's Executive Order and implement a definition of "navigable waters" that is consistent with Justice Scalia's opinion, the United States would have no jurisdiction over HVI-CC in this case.

In light of the Executive Order's directive, HVI-CC contacted trial counsel from the Department of Justice via letter on March 3, 2017, notifying trial counsel of the Executive Order and explaining the Executive Order's implications for the instant litigation. Because the Executive Order contemplates significant changes to the substantive law applicable to this case, HVI-CC requested that trial counsel from the Department of Justice suspend their prosecution of this

matter, pending the outcome of the rulemaking initiated by the Executive Order. Trial counsel from the Department of Justice rejected HVI-CC's request on March 6, 2017.

Due to the refusal of the Department of Justice's trial counsel to even consider staying their prosecution of this case in a manner consistent with the Executive Order, HVI-CC felt it had no choice but to move the District Court for an emergency stay. On March 9, 2017, HVI-CC sent a letter to both the United States and the State of California outlining its anticipated motion for an order staying the proceedings. During a March 14, 2017, telephonic meet-and-confer regarding HVI-CC's anticipated motion to stay, trial counsel from the Department of Justice stated that they would oppose HVI-CC's application for a stay and refused to accommodate HVI-CC's request that its motion be heard on shortened time.

During the meet-and-confer process, HVI-CC expressed concern that that the positions taken in this litigation by trial counsel from the Department of Justice were at odds with the position taken by the President's Administration through its Executive Order and Notice of Intent. Based on these concerns, HVI-CC asked trial counsel to identify the highest ranking official at the EPA and/or Department of Justice who had been consulted regarding the decision by trial counsel to ignore the implications of the Executive Order and oppose HVI-CC's request for a stay. Trial counsel from the Department of Justice refused to specify which EPA or Department of Justice officials, beyond the trial team, if any, had been consulted regarding the decision to reject HVICC's request for a stay.[2]

To HVI-CC's knowledge, the Department of Justice officials who would be involved in deciding to take a position that contradicts the Executive Order and Notice of Intent are Thomas Mariani (Section Chief, Department of Justice Environmental Enforcement Section) and Henry S. Friedman (Assistant Section Chief, Department of Justice Environmental Enforcement Section). Trial counsel from the Department of Justice refused to indicate whether either of these individuals were consulted or participated in the decision to take a position at odds with the Executive Order and Notice of Intent.[3]

---

[2] On March 16, 2017, HVI-CC filed an ex parte application for an order staying proceedings pending the outcome of the administrative rulemaking process set in motion by the Executive Order. On March 17, 2017, the United States filed an opposition to HVI-CC's application. HVI-CC's ex parte application for a stay is currently pending before the District Court.

[3] To HVI-CC's knowledge, the EPA and Department of Justice officials who would be involved in deciding to take a position that contradicts the Executive Order and Notice of Intent are: Kevin S. Minoli (EPA Acting General Counsel), Sylvia Quast (EPA Region 9, Regional Counsel), Alexis Strauss (EPA Region 9, Acting Regional Administrator), Debbie Jordan (EPA Region 9, Acting Deputy Regional Administrator). Trial counsel from the Department of Justice also refused to indicate whether any of these individuals were consulted or participated in the decision to take a position at odds with the Executive Order and Notice of Intent.

These events have led HVI-CC to conclude that a small group of attorneys at the Department of Justice are engaged in resistance against the President's Executive Order and are continuing to enforce Obama-era regulations in direct contravention of the policies of this Administration. As a result, HVI-CC is seeking the intervention of the Attorney General, the Acting Assistant Attorney General, and their respective staffs in order to reign in the politically motivated and unreasonable actions of the Department of Justice's trial team.

The actions of this small group of attorneys jeopardize the integrity of the Department of Justice, threatens the efficacy of the President's policies, and has severely prejudiced HVI-CC. It is a fundamental principle of justice that like cases should be treated alike, and it would be a miscarriage of justice to allow one small trial team to single out HVI-CC and apply outdated and inapplicable rules that have been specifically disavowed by the President and which will soon be replaced with new rules favorable to HVI-CC.

B. The Enforcement Action against HVI-CC Raises Serious Ethical Concerns

The enforcement action against HVI-CC also raises serious ethical concerns. Trial counsel from the Department of Justice have pressed forward with this case despite the fact that the United States' co-party, the State of California, has engaged in the spoliation of key evidence and regulators from the EPA have abused their power, threatened HVI-CC personnel, and falsified administrative records in order to support a finding of jurisdiction.

i. The United States will benefit From the State of California's Spoliation of Evidence

In November 2009, before bringing this enforcement action, the State of California and the United States entered into a joint prosecution agreement. This agreement was necessitated by the fact that the claims asserted by both the State and the United States relied on fact witnesses who were employed by the State of California at the time of the events at issue. In fact, in their initial disclosures, the United States and the State of California identified 33 total witnesses, 21 of whom were employed by the State of California at the time of the alleged discharges of oil.

In 2014, HVI-CC discovered that the State of California, the United States' co-party in this litigation, had engaged in the substantial spoliation of evidence. During discovery, HVI-CC expressed its concern that the State of California may have failed to implement an effective litigation hold, leading to the destruction of significant quantities of Electronically Stored Information ("ESI") relevant to the case. The State of California repeatedly (and falsely) assured HVI-CC that it had issued a proper litigation hold.

During the course of discovery, however, it became abundantly clear that the State of California's representations regarding a litigation hold were false and that the failure to implement a litigation hold had led to the destruction of a substantial quantity of ESI, including ESI related to key

witnesses in the case. After uncovering the State's misconduct, HVI-CC brought a motion for sanctions against both the State of California and the United States.

As a result of HVI-CC's motion, the Magistrate Judge overseeing the case issued a Report and Recommendation that several witnesses be excluded from testifying on behalf of either the State of California or the United States because the destruction of ESI impeded HVI-CC's ability to cross-examine or impeach those witnesses.[4] The Magistrate Judge analogized the significance of the missing ESI to the importance of the missing recordings from the Watergate scandal.[5] The District Court Judge ultimately issued an order[6] excluding witnesses from testifying on behalf of the State of California, but allowed the witnesses to testify on behalf of the United States.[7]

Although the United States was not ultimately sanctioned by the Court with respect to this matter, the State of California's spoliation of evidence raises serious ethical questions for this enforcement action. As noted above, the United States entered into a joint prosecution agreement with the State of California and the United States' claims rely on the same witnesses and the same evidence—evidence that is now tainted by spoliation. Key witnesses in the United States' case will now be shielded from cross-examination and impeachment due to the State of California's spoliation of ESI. By continuing with this enforcement action, the United States is making a deliberate decision to benefit from the State of California's spoliation of evidence.

ii. EPA Regulators Abused Their Power, Made Wildly Inappropriate Threats, and Falsified a Basis for Jurisdiction

The trial team from the Department of Justice has also chosen to press on with this enforcement action despite the fact that regulators from the EPA engaged in egregious misconduct during the events at issue. Specifically, the EPA's Federal On-Scene Coordinator ("FOSC") in this case, Robert Wise—who was responsible for asserting jurisdiction over the alleged discharges at issue and was also responsible for supervising the federal government's response—engaged in serious and disturbing misconduct throughout the events underlying this case.

---

[4] A copy of the Magistrate Judge's Report and Recommendation is attached hereto as Exhibit A.
[5] The Magistrate Judge opined: "History warns us that what is lost in an eighteen minute gap in an electronic recording may be more revealing than other evidence that was preserved." Ex. A at 11.
[6] A copy of the District Court's Order is attached hereto as Exhibit B.
[7] The State's spoliation of evidence was so troubling, and the Court's sanctions so serious, that the case garnered attention from the media. *See* Scott Steepleton, *State Sanctioned in 'Targate,' Judge Likens Evidence Destruction to Nixon Scandal*, Santa Barbara News-Press (Nov. 27, 2016), http://www.newspress.com/Top/Article/article.jsp?Section=LOCAL&ID=567662267789869100 (attached hereto as Exhibit C); Joel B. Pollak, *Judge Slams California for Destroying Evidence in 'Targate'*, Breitbart (Nov. 29, 2016), http://www.breitbart.com/california/2016/11/29/judge-slams-california-destroying-evidence-targate/ (attached hereto as Exhibit D).

Internal EPA emails show that Mr. Wise was sent to HVI-CC's facilities in order to "teach" HVICC "a lesson." Mr. Wise's "teaching" began when he asserted federal jurisdiction over the facilities and discharges at issue without conducting a sufficient factual investigation of the rainfall drainages that allegedly provide the basis for federal jurisdiction in this case. The drainages at issue were dry when Mr. Wise arrived at HVI-CC's facilities. Nonetheless, without flow data or other information regarding the permanence or ecological significance of the drainages, Mr. Wise asserted federal jurisdiction.

Indeed, during his deposition, Mr. Wise admitted that he did not even walk many of the drainages at issue in order to determine whether and where they connected to a traditional navigable water. Instead of conducting a proper investigation, Mr. Wise relied on the fact that rain was "expected" in the area in order to support his determination that the heavy, tar-like oil that had been discharged was a threat to traditional navigable waters tens of miles away. In fact, Mr. Wise went so far as to include the forecast of rain as a reason for asserting jurisdiction in his official EPA Pollution Report.

But Mr. Wise's statement that rain was in the forecast is demonstrably and unequivocally false. Contemporaneous forecasts from the National Weather Service and local newspapers—the very sources Mr. Wise testified that he relied on—confirm that no rain was expected. Further, communications between regulatory personnel from the State of California also confirm that no rain was expected. Thus, the primary basis Mr. Wise cited for asserting jurisdiction over HVICC's facilities was completely fabricated.

When questioned at his deposition about his lack of a basis to assert federal jurisdiction over HVI-CC, Mr. Wise attributed his decision to the "advice of counsel" at the EPA. Mr. Wise, of course, refused to describe the advice he received.[8] That Mr. Wise's testimony is light on details is unsurprising given that no one at the EPA—neither Mr. Wise nor his counsel—had sufficient information to support a jurisdictional determination before federalizing HVI-CC's cleanup efforts. The lack of contemporaneous evidence and the fabrications perpetrated by Mr. Wise are consistent with HVI-CC's discovery that other internal EPA documents may have been altered after the fact in order to bolster the EPA's assertion of jurisdiction.[9]

Unfortunately, Mr. Wise's efforts to "teach" HVI-CC "a lesson" were not restricted to fabricating a basis for jurisdiction. HVI-CC's former President testified that Mr. Wise told him that the

---

[8] Although HVI-CC presumes that advice did not include a directive to falsify government documents.

[9] This potential falsification of evidence has also received media attention. *See* Paul Gonzalez, *Greka Successor: EPA Fabricated Evidence*, Santa Barbara News Press (November 30, 2016), http://www.newspress.com/Top/Article/article.jsp?Section=LOCAL&ID=567663796798226456 (attached hereto as Exhibit E).

Board of County Supervisors called the regulators (including the EPA) together and told them to destroy HVI-CC and put it out of business.[10] HVI-CC's former President also testified that Mr. Wise repeatedly abused his authority by "making comments about how he was going to put me and Randeep [Grewal, HVI-CC's CEO] in jail and I would become intimate with Leroy," asking whether HVI-CC "was ready to file bankruptcy," "showing glee in putting the company in bankruptcy," "threatening me that if I did not do exactly as he said, he would have us spend another million or two million digging up the Bell creek," "admit[ing] that the cleaning up of the Bell Creek and what he required was completely subjective and was not based on any kind of objective standard," telling him that "he enjoyed going to good restaurants on [HVI-CC's] expense account," and telling him "that it was completely arbitrary how long he stayed there, you know, as long as he felt."[11]

At his deposition, Mr. Wise did not deny making most of these statements, instead repeatedly claiming that he did not recall. HVI-CC's former President characterized Mr. Wise's actions as "egregious, unfair, arbitrary, vindictive, and illegal."

Another example of the unfair and over-zealous behavior of the EPA regulators in this case can be found in an email describing an inspection and release at an HVI-CC facility sent by Peter Reich, an EPA inspector, to another EPA official. In that email, Mr. Reich expressed disappointment about the fact that the release was adequately contained on HVI-CC property and that there were no major regulatory violations at the facility. After acknowledging that he only found one minor deficiency at HVI-CC's facility, Mr. Reich wrote, "because their releases were adequately contained and/or did not get off the administrative controls of their lease, there was no way to really take a stick to them." On another occasion, Mr. Reich sent an email suggesting that Mr. Wise to go to HVI-CC's facilities and "put a little fire under [HVI-CC's] @$$."

Attorneys from the Department of Justice have been aware of the rampant abuse of power and misconduct perpetrated by the EPA in this case, but have pressed on with an enforcement action based, in large part, on the decisions made by Mr. Wise and other regulators.

---

[10] Mr. Wise's comments evidence the fact that this enforcement action appears to be a politically motivated attack on small, independent oil company that is part of the oil and gas industry in Santa Barbara, California—a region with a 100-year history of oil production. Despite Santa Barbara's long and fruitful relationship with oil production, the industry has recently fallen out of favor with certain residents, many of whom recently relocated to Santa Barbara and oppose fossil fuels because they blame oil and gas companies for global warming.

[11] Mr. Wise's comments are so egregious that they have been covered by the press. *See* Joel B. Pollak, *Lawsuit: EPA Official Used Racist, Homophobic Threat of Prison Rape*, Breitbart (January 10, 2017), http://www.breitbart.com/big-government/2017/01/10/epa-official-threatened-execs-racist-homophobic-prison-rape/ (attached hereto as Exhibit F).

C. Conclusion

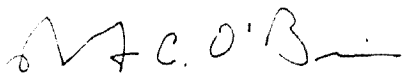
Department of Justice trial attorneys should not be in the business of defying or "resisting" the orders of the President of the United States in order to enact their own vision of environmental justice. Trial counsel in charge of this case have made it clear that they intend to regulate and litigate HVI-CC out of existence, even if they must race the clock to achieve a final verdict before this Administration implements the will of the people. This behavior is inequitable and unbefitting of the high distinction of the Department of Justice.

Similarly, the ethical problems raised by the State of California's spoliation of evidence and the disturbing behavior of Mr. Wise should give any prosecutor pause. Yet, the trial team from the Department of Justice has refused to grapple with these serious questions. In their crusade to punish HVI-CC, apparently for no other reason than it is an oil and gas company, trial counsel have determined that they are willing to take advantage of the spoliation of evidence and will tolerate gross misconduct by federal regulatory officials. In their efforts to "teach" HVI-CC a "lesson," the EPA and Department of Justice officials involved in this case seem to have forgotten that they serve a higher purpose.

HVI-CC appeals to you, Attorney General Sessions and Acting Assistant Attorney General Wood, and requests that you intervene in this off-the-rails enforcement action before it results in a miscarriage of justice. As noted above, we ask that you put an end to the resistance to and obstruction of President Trump's Executive Order by dismissing this case over which the United States has no jurisdiction. Alternatively, we ask that the United States suspend the prosecution of the case until the EPA and the Corps complete the review and rulemaking initiated by the Executive Order.

We would welcome the opportunity to meet with you and your senior team in-person at main Justice in Washington to further discuss this matter. Finally, please do not hesitate to contact me with any questions or comments regarding the foregoing.

Very truly yours,



Robert C. O'Brien

RCO:mv
Enclosure (Exhibits A-F)

cc: The Honorable Scott Pruitt, Administrator Environmental Protection Agency
Judge Stephen G. Larson (ret.), Larson O'Brien LLP
Hugh Hewitt, Esq., Larson O'Brien LLP

O

UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

UNITED STATES OF AMERICA, ET AL., Plaintiffs, vs. HVI CAT CANYON, INC. f/k/a GREKA OIL & GAS, INC., Defendant.	CASE NO. CV 11-05097 FMO (RZx) REPORT AND RECOMMENDATION OF UNITED STATES MAGISTRATE JUDGE

This matter came before the Court for hearing on March 2, 2015 on the motion of Defendant HVI Cat Canyon, Inc. (formerly known as Greka Oil & Gas, Inc.) for terminating sanctions. (Docket No. 98.) The basis of the motion is that Plaintiff State of California has despoiled evidence. Defendant appeared through its counsel Stephen G. Larson, Robert C. O'Brien, Jerry Behnke, James L. Meeder and Emily L. Murray. Plaintiff People of the State of California ("California") appeared through its counsel Michael T. Zarro. Plaintiff United States of America appeared through its counsel Angela Mo, Robert D. Mullaney and Michael Massey. The Court heard argument of counsel and took the matter under submission. The Court has reviewed thoroughly the Joint Stipulation of the parties, the Supplemental memoranda, the exhibits, and the transcript of the March 2, 2015 hearing.

///

I.

A preliminary question confronts the Court: whether to issue a decision under its own authority, or to make a report and recommendation to the presiding District Judge. The statute, 28 U.S.C. § 636, and governing rule, FED. R. CIV. P. 72, allow this Court to make a decision as to non-dispositive matters (with review available based on the clearly erroneous standard as to fact-finding, and legal error as to conclusions of law), or to make a report with recommendations as to dispositive matters (with *de novo* review available as to matters as to which objections are properly made). The statute and rule are susceptible to different interpretations – that the character of the motion, regardless of the outcome of the motion, determines which route the Court should take; or that the outcome of the motion, regardless of the character of the motion, is the determining factor. Although the language of the statute and rule may well favor the former interpretation ("a judge may designate a magistrate judge to hear and determine any pretrial *matter* . . . except a motion . . . to involuntarily dismiss an action," 28 U.S.C. § 636(b)(1)(A) (emphasis added)), there is some case law suggesting the latter. (*See, e.g., Apple, Inc. v. Samsung Electronics*, 888 F. Supp. 2d 976, 988 (N.D. Cal. 2012) (citing several cases).) For reasons that appear further, this Court has elected to report to the District Judge, together with making recommendations for action.

II.

The operative charging document is the First Amended Complaint, filed February 28, 2013, by the United States and the People of the State of California *ex rel.* California Department of Fish and Wildlife and California Regional Water Quality Control Board, Central Coast Region. The Federal and State Governments seek civil penalties, injunctive relief, cost recovery and damages from Defendant (Complt. ¶ 1) for a series of oil spills, at several different facilities, occurring at a period beginning in 2005 and running through 2010. Plaintiffs rely on both federal and state statutes. Although both sovereigns appear as Plaintiffs, the investigation of the various spills was overwhelming undertaken

by State employees, and this Court has justified federal jurisdiction over the entirety of the action on the finding that the federal and state claims share a common core of facts, and are factually related to one another, Amended Order Denying Order to Dismiss (Docket No. 51) at 7:9-13, and that "it is likely that the same witnesses will describe the oil spills underlying the federal claims as well as those spills underlying purely state claims." *Id.* at 7:13-16.

III.

As the Ninth Circuit has recognized, there are two sources of authority for the imposition of terminating sanctions resulting from the despoiling of evidence. The Federal Rules of Civil Procedure authorize terminating sanctions for the violation of a court order, FED. R. CIV. P. 37(b), and the inherent powers of the Court authorize such sanctions to protect the integrity of the Court. *Leon v. IDX Systems Corp.*, 464 F.3d 951, 958 (9th Cir. 2006). Although the papers before the Court reference a (stipulated) court order, Case Management Order No. 2, that Order does not command preservation of materials, but instead states what does *not* need to be preserved, and the Order contains no provision that was violated by any conduct that has been brought to the Court's attention. There is no other potential violation of a court order, and thus no basis to evaluate this motion under the Federal Rules of Civil Procedure. The motion itself was explicitly made under the Court's inherent authority (Motion at 2:6-8) and, at oral argument, counsel for Defendant acknowledged that Defendant was relying on the inherent powers of the Court for the authority to impose sanctions. R.T. 31:8-9.[1] The Supreme Court has urged caution in exercising inherent powers. *See, e.g., Chambers v. NASCO, Inc.*, 501 U.S. 32, 44-45 (1991). However, even though the Court must exercise caution, there is no doubt that the Court does retain the power to terminate an action in order to preserve the integrity of the Court's processes. *Leon, supra.*

---

[1] "R.T." refers to the transcript of the oral argument held on the motion on March 2, 2015.

The Ninth Circuit has used the same factors to evaluate a motion for terminating sanctions, whether the source of the authority is the Federal Rules of Civil Procedure or the inherent powers of the Court. *Anheuser-Busch, Inc. v. Natural Beverage Distributors*, 69 F.3d 337, 348 (9th Cir. 1995); *Leon,* 464 F.3d at 958 n.4. As set forth in several decisions, the Court adjudicating a request for terminating sanctions must consider the following factors:

> (1) the public's interest in expeditious resolution of litigation; (2) the court's need to manage its dockets; (3) the risk of prejudice to the party seeking sanctions; (4) the public policy favoring disposition of cases on their merits; and (5) the availability of less drastic sanctions.

Anheuser-Busch, *supra; Leon*, 464 F.3d at 958, and cases cited therein.

IV.

There are two facts that underlie this motion. First, percipient witnesses employed by the State of California did not preserve all records. Second, during this litigation, counsel for Plaintiff State of California represented to Defendant that a litigation hold was in place, which, had it been imposed early enough and followed, would have resulted in the preservation of records; but such a hold in fact was not in place. The Court explores these facts further below.

A. The Spoliation

A party has an obligation to preserve evidence when the party reasonably anticipates litigation. *Apple v. Samsung*, 888 F. Supp. 2d 976, 991 (N.D. Cal. 2012). Each of the parties to this action acknowledges this responsibility. The First Amended Complaint references oil spills in 2005, 2007, 2008, 2009 and 2010. Each spill could

reasonably have been expected to lead to litigation, because each exposed Defendant to penalties, damages and clean-up costs available under the governing statutes, and in fact Plaintiffs did consider the fact that litigation might ensue. In this Court, Plaintiff California argued that it did not anticipate that the 2005 spills would lead to litigation because Defendant paid for the clean-up. The United States certainly did, however, as its privilege log indicates in several places (Murray Decl. Ex. A at 6-7), and in fact the EPA issued an administrative order to Plaintiff in 2005 (*Id.* at ¶ 34); as noted, moreover, most of the investigation of the oil spills was undertaken by California employees, and it is unrealistic to assume that the California employees were not in contact with their federal counterparts in 2005. In its papers filed in this Court, California took the position that it did not anticipate litigation until 2009. But even if 2005 were not the time at which it in fact anticipated litigation – although it reasonably should have done so – the position that litigation was not anticipated until 2009 is not tenable. As California's counsel candidly acknowledged at oral argument – seemingly only recently having just heard of it – one of California's witnesses recognized the likelihood of litigation at least in 2008, and the obligation to preserve evidence therefore arose at least by that time. R.T. 65:20-25; 66:5-9 ("[W]e were mistaken in thinking that 2009 would have been the proper time to institute a litigation hold.").

Regardless of precisely when the obligation arose, however, it clearly arose at some point, and just as clearly was not adhered to. There were four incidents which caused the loss of evidence, and much of the lost evidence consisted of emails. Some computers were "surveyed" when employees who worked on the spills retired; "survey" appears to be a euphemism California uses when it destroys or recycles a computer. California changed its email software from Novell GroupWise to Microsoft Exchange, and some emails were lost in that process. A crash of hard drives caused some loss of emails. Finally, as to one witness, Fonseca, there is an issue as to lost documents, both electronic and hard copy.

The Court has had difficulty in understanding just what is missing. Defendant conducted an entity deposition pursuant to FED. R. CIV. P. 30(b)(6), and that deposition established what the California Department of Fish and Wildlife did as an entity. It thus gives some evidence that various emails or paper documents would not have been preserved, but it expressly did not address retention practices of individual employees. (Zarro Decl. ¶ 3.) Some of those individuals did in fact maintain email or other electronic information. Yet, the deposition stands as evidence on behalf of California – that is, after all, what a Rule 30(b)(6) deposition is for – and was not rebutted by Plaintiffs as to ten witnesses: Abe, Boggs, Brown, Chastain, Connell, Robin Lewis (California submitted a declaration from a different Lewis, Shawn Lewis, who was a legal assistant), Mack, Scott, Stanton and Todd. Thus, as to *those* witnesses, there was no evidence of their individual retention practices, and the entity deposition is the only evidence the Court has. The evidence for those witnesses, as identified by the party itself, is that some electronic or other information was not preserved.

Furthermore, Defendant has produced evidence that clearly shows that California lost some emails, because they were not produced by the Department of Fish and Wildlife, even though they were either received by Defendant or produced by the United States. See Murray Decl. II ¶ 2 (94 emails to or from Boggs produced either by Plaintiff United States or Defendant, but not by Plaintiff California); Murray Decl. II, exhibit 3 (email sent by Defendant's contractor to Plaintiff's witness, but email attachment not produced by Plaintiffs).

For its part, California has submitted declarations from 11 witnesses about retention practices that they individually followed in this case.[2] Those include Boyes,

---

[2] An unsworn declaration has the same force and effect as a sworn declaration or affidavit, if it is subscribed in substantially the form set forth in 28 U.S.C. § 1746. That form provides that the declarant will say that he declares "under penalty of perjury" that the foregoing is true and correct. Each of the declarations submitted by California does not follow this form, but rather the declarant states matters to be true "under penalty of perjury under the laws of the State of California." Since the declarant has (continued...)

Curtis, Dostal, Fonseca, Foto, Gold, Gollhofer, Gross, McCall, Paz and Wilson. California also submitted declarations from in-house counsel John Holland and Legal Assistant Shawn Lewis. In general, the fact witnesses declared that they did not use email for substantive matters, or occasionally that electronic information that they lost has been recovered, or that there is some other factor that might mitigate the impact of loss.

B. Representations About a Litigation Hold

For a large organization – and Federal and State government departments certainly are large organizations – it is customary to impose a litigation hold on documents once it is reasonably anticipated that litigation may ensue. Such a hold implements the duty to preserve evidence, and instructs employees to over-ride what might otherwise be routine practices of document destruction. The case law has developed the expectation that a party will implement such a litigation hold to preserve documents that may turn out to be relevant once litigation is filed. In the modern age, of course, this includes documents that appear in electronic form.

In-house counsel for the California Fish and Wildlife Department, John Holland, has submitted a declaration in which he states that he "distinctly recall[s] preparing a litigation hold memorandum during the summer of 2009 to send to CDFW [California Department of Fish and Wildlife] personnel and thought I sent the memorandum." However, he goes on to declare that he has searched his records and has not been able to find a copy of the memorandum. Nor has anyone else, and Plaintiffs

---

[2](...continued)
limited his attestation to the prescriptions of California law, an evidentiary objection could be raised that he has not presented evidence that is competent in federal court, not having sworn to his statement and not having conceded to be bound by federal perjury laws. The few cases that have considered this issue, however, have said that a declaration "under penalty of perjury under the laws of the State of California" substantially complies with section 1746. *See, e.g., Buckheit v. Dennis*, 2013 WL 427122 , *1 (N.D. Cal. 2013), *rev'd on other grounds*, 573 Fed. Appx. 662 (9th Cir. 2014). Whether that is the proper analysis or not, however, Defendant did not raise any such objection, and therefore it is waived. The Court assumes that the attorneys preparing the declarations, and the witnesses themselves, meant for the testimony to be effective, i.e., subject to the penalties of perjury, under federal as well as State law.

concede that no such memorandum exists. Plaintiffs call the failure to impose a litigation hold a mistake. Perhaps it was, in the sense that the Court has seen no evidence that California made a deliberate initial decision *not* to impose a litigation hold. However, as noted, if it was a mistake, it was at the very least a tardy mistake, as the need for preservation arose earlier.

But if initially it may have been a mistake, what followed was less free of blame. Once this litigation began in 2011, one would have thought that the existence of a protocol to preserve evidence would have been verified as part of the initial process of commencing a lawsuit, and double-checked periodically thereafter to make sure that it was being followed. Yet California said that it had imposed such a hold, apparently without ever checking to verify that it had done so. In its Joint Report to the Court, filed on August 31, 2012, Defendant noted that the parties had exchanged documents for a year before litigation commenced (Docket #37 at 2:13-16) – there was no indication by California that anything was missing, or that a litigation hold had not been instituted – and the parties reported to the Court that they "are not presently aware of any issues regarding the preservation of discoverable information." (Docket #37 at 12:26-27.)

Then, California made representations on several additional occasions from which the natural conclusion was that a litigation hold was in place. California said that it was working with the employees, both current and retired, to recover metadata, and gave no indication that, while it was doing so, any electronic information had not been preserved. (Murray Decl. Ex. 10.) California also affirmatively stated that Mr. Holland had put a litigation hold in place. (Murray Decl. Ex. 12.) Then, after further discussions, California again stated that it had put a litigation hold in place. (Murray Decl. Ex. 16.) California followed up by stating that it would produce documents relating to the litigation hold that had been put in place. (Murray Decl. Ex. 22.) California told Defendant that it thought that, in addition to the litigation hold put in place by the Department of Fish and Wildlife, that the Attorney General's Office also had put such a hold in place. (Murray Decl. at 12:10-12.) These various representations were made by litigation counsel for

California, who appears to have been relying on what he had been told either by Mr. Holland or others. At oral argument, Mr. Zarro stated to the Court that once *he* actually knew that there had been no litigation hold, he informed counsel for Defendant within 45 minutes. R.T. 48:8-12. The Court takes Mr. Zarro at his word. Nevertheless, California as an entity – and it is the entity that is the party – appears to have acted, or failed to act, in a manner that at least was grossly negligent or reckless. Whether one characterizes the failure to impose a litigation hold, and the subsequent communications about a hold, as grossly negligent, reckless or by some other adjective, the effect of the communications was to mislead both the Court and opposing counsel, and that does in fact impugn the integrity of the Court's processes. And, of course, some evidence has been lost.

V.

The Court now turns to a consideration of the factors to be assessed in evaluating a motion for terminating sanctions. One of the "factors" is the public policy favoring decisions on the merits. In every case, of course, it would be preferable to have a decision on the merits, and therefore this is not so much a factor to be dissected and evaluated separately by a court – how could a court ever say it was better *not* to have a decision on the merits? – as it is a counterweight against the factors that the Court does assess. Perhaps for this reason, the desire to decide a case on the merits, standing alone, is not sufficient to avoid dismissal. *Leon*, 464 F.3d at 960-61, citing *Malone v. U.S. Postal Service*, 833 F.2d 128, 133 n.2 (9th Cir. 1987). Moreover, in the Court's view, this factor is entitled to no special weight in this case by virtue of the fact that the Plaintiffs are the Governments of California and the United States, representing the citizens of their jurisdictions. Indeed, the law often takes just the opposite view – that it is more important that the Government proceeds in the right way than that a result the Government desires is reached. *See, e.g., U.S. v. Kojayan*, 8 F.3d 1315, 1323 (9th Cir. 1993) ("The prosecutor's job isn't just to win, but to win fairly, staying well within the rules."). Although such

statements often appear in criminal actions, actions based on environmental statutes where the Government seeks, *inter alia*, civil penalties are a close cousin, for civil penalties are a form of punishment. *See, e.g., Tull v. United States*, 481 U.S. 412, 423 n.7 ("The more important characteristic of the remedy of civil penalties is that it exacts punishment – a kind of remedy available only in courts of law.").

The first two factors go together in this case. The public's interest in expeditious resolution of litigation can no longer be protected. The case already is four years old, and concerns oil spills from some time ago; the most recent spill occurred six years ago, and some occurred nearly ten years ago. As noted, several witnesses have retired. The case was stayed once even before the present controversy surfaced, to allow the parties to attempt mediation, and it has been stayed further to allow the Court to resolve this controversy. Even from California's perspective, Defendant would be entitled to significant further discovery just on the issue of spoliation; in fact, California suggested that Defendant pursue just such a course, and take not only the deposition of the entity under FED. R. CIV. P. 30(b)(6), but also the depositions of all the individuals who might have been involved, some twenty-one witnesses. It will be impossible for the Court to conclude this case expeditiously, and to manage its docket efficiently by carrying this case forward, in a district that is one of the busiest in the nation. Some of that fault owes to California's failure to preserve evidence as it was required to do.

Efficiency, however, is not the only consideration. The remaining two factors, which are also somewhat related in this case, are at least equally important factors to assess. The first is the risk of prejudice. The second is the availability of alternative sanctions.

A. Risk of Prejudice

In *Leon*, the Court stated directly that "because 'the relevance of . . . [destroyed] documents cannot be clearly ascertained because the documents no longer exist,' a party 'can hardly assert any presumption of irrelevance as to the destroyed

documents.'" *Leon*, 464 F.3d at 959 (quoting *Alexander v. Nat'l Farmers Org.*, 687 F.2d 1173, 1205 (8th Cir. 1982) (ellipsis and brackets as in *Leon*). At oral argument, California denied that it had the burden of showing an absence of prejudice, R.T. 56:3-7, but the Court disagrees. The burden *has* to fall on the party responsible for the despoliation of evidence, because it certainly is in a better position to know what has been destroyed, and placing the burden on the "victim" of the despoliation rewards the party that has destroyed evidence. *See Apple v. Samsung Electronics*, *supra*, 888 F. Supp. 2d at 993.

Leon notes that "[t]he prejudice inquiry 'looks to whether the [spoiling party's] actions impaired [the non-spoiling party's] ability to go to trial or threatened to interfere with the rightful decision of the case.'" 464 F.3d at 959 (brackets as in *Leon*), citing *United States ex rel. Wiltec Guam, Inc. v. Kahaluu Constr. Co.*, 857 F.2d 600, 604 (9th Cir. 1988). A "rightful decision of the case" does not mean an outcome that one party or the other thinks is right, which appears to be the view of Plaintiffs. Rather, tracing that language back, the cases make clear that "a rightful decision" is one that is made based on appropriate proof. *See G-K Properties v. Redevelopment Agency of City of San Jose*, 577 F.2d 645, 648 (9th Cir. 1978).

California makes essentially two arguments in support of its position that Defendant has not suffered prejudice. Its first argument is that there is plenty of other evidence. California has submitted extensive reports that were prepared about the spills, and it details the volume of documents that it *has* produced. So the missing evidence is not the only evidence, and that does cabin in the prejudice somewhat. Not entirely, however, and not conclusively. In theory, what may be missing may be the most important matters. The lost evidence may be important for marginalia that do not appear elsewhere, or comments revealing bias, or other information affecting credibility. History warns us that what is lost in an eighteen minute gap in an electronic recording may be more revealing than other evidence that was preserved.

California also argues, essentially, that the missing evidence was *not* very important. Boyes, Dostal, Foto, Gross and Wilson each state in their declarations, for

example, that they did not use email for much of consequence. But the substantive nature of email may be in the eye of the beholder. Defendant has adduced evidence of emails that Boyes and Gross wrote, for example, that an objective observer might consider to address matters of substance, as opposed to matters of clerical direction, such as mere transmittal memoranda. (Murray Decl. II, Exs. 4, 5, 6.) What is missing in fact *could* be evidence that is impeaching. Indeed, at oral argument, California conceded as much. R.T. 57:8-24.

The Court concludes that there is, in fact, a risk that Defendant has been prejudiced by the despoliation of evidence. But there are degrees of prejudice. This case does not present the same scale and texture of destruction as *Leon*, where the missing evidence without doubt went to the very heart of the case, and where Leon's culpability for the loss was palpable. The haphazard nature of the loss here makes it less likely that impeaching evidence was stricken; why delete, for example, emails that had been sent to Defendant itself? What inference is to be drawn about the nature of lost information from the fact that electronic information was lost when a computer crashed, or when a transition was made from one kind of software to another? While there is likely some prejudice, the Court cannot conclude that the prejudice is likely to have been so damning that there can be no other remedy than dismissal. California blundered, and there has been some impact, but the question remains what to do about it.

B. Lesser Sanctions

Unlike many spoliation cases, the present case does not involve a jury, and hence the relief often sought, an adverse inference jury instruction, is not available here. *Compare, e.g., Apple v. Samsung, supra.* The other main alternative sanctions are orders affecting the evidence at trial, and monetary sanctions. The Court believes that a combination of these may be sufficiently calibrated to the loss of evidence in this case.

A dismissal sanction based on the Court's inherent powers is appropriate when "a party has engaged deliberately in deceptive practices that undermine the integrity of judicial proceedings," *Leon*, 464 F.3d at 958, quoting *Anheuser-Busch, supra*, 69 F.3d at

348. Here, there was a serious blunder – the failure to impose a litigation hold – and the blunder created the circumstance that allowed for evidence to be destroyed. A second blunder compounded the first, when California repeatedly represented that it had placed a litigation hold, when, in fact, it had not. The blunders were serious, but the Court cannot find that they were maliciously motivated, or that they were made with the deliberate intention that evidence would be destroyed. But the integrity of the Court's processes was affected and evidence *was* destroyed, and there must be a consequence to that.

At oral argument, California acknowledged that other remedies than dismissal existed, albeit California would have them applied at trial, rather than pretrial. R.T. 50:17-20. Defendant moved not only for terminating sanctions, but also "for any other sanctions that the Court deems appropriate." Motion at 2:9-10. The Court believes that an order for witness exclusion, discovery management, and monetary sanctions provides an appropriate alternative to the sanction of dismissal. Such a restriction can more appropriately address the conduct here than the complete dismissal of the action, and more appropriately balances the factors that must be considered in a dismissal motion.

The Court will recommend as follows:

1. That the Court exclude the following witnesses from testifying at trial: Abe, Boggs, Brown, Chastain, Connell, Robin Lewis, Mack, Scott, Stanton and Todd. These are the witnesses as to whom California submitted no evidence to counter the evidence submitted by Defendant that materials from them were not preserved. California did not carry its burden as to them, and Defendant has made a sufficient showing otherwise.

2. That California be required to pay Defendant's costs and attorney's fees for taking the depositions of Boyes, Curtis, Dostal, Fonseca, Foto, Gold, Gollhofer, Gross, McCall, Paz and Wilson. These are the witnesses as to whom California submitted declarations in this matter. That evidence, while it provides some rebuttal to Defendant's evidence, often is conclusory, and needs further exploration. Payment must be for the full deposition, not just portions related to spoliation, because California's position is that the

remaining evidence is sufficient to make up for the spoliated evidence, and Defendant should have the opportunity to assess that position, to insure that the "rightful decision" is made; and

3. That California be required to pay for the costs and attorneys' fees Defendant incurred in connection with this motion. The motion is the result of California's failure to manage properly the information of its employees, and to adhere to commonly-known and well-accepted standards of maintaining evidence in anticipation of litigation. It is appropriate that California reimburse the moving party for the necessity of having to make the motion.

The Court makes these in the form of recommendations because they will affect the trial management of the action. Some are in the nature of what ordinarily might be *in limine* rulings, typically made by the judge presiding over the action. In the Court's opinion, therefore, these appropriately are recommendations, based on this report, that the trial judge should accept or not, in accordance with the governing statute.

VI.

The United States has argued that terminating sanctions cannot be imposed against it because it was not responsible for the spoliation. Having no control over the employees, the United States argues, it had no duty to preserve evidence and therefore cannot be penalized for the possible misdeeds of California. The Court need not fully address the argument, because the Court does not recommend terminating sanctions.

The argument is, however, off target as to the consequences the Court does recommend. To begin with, the United States was intimately involved with this matter from the start. As noted, its privilege log indicates that it was contemplating litigation as early as 2005, and its source of information clearly included State employees. It has designated as fact witnesses persons who were State employees, and the Court long ago found a significant intertwining between the factual matters alleged by the State and Federal governments, and a quite significant overlap in the witnesses. It has entered into

a Common Interest Confidentiality Agreement with the State, predicated in part on "common interests in their investigation of Greka [Defendant]" and the wish to work together about "claims, evidence and strategies." Plaintiffs' Ex. P (Falloye Decl.) at P-42, p.1. If the action has not been "federalized" as Defendant argued orally, R.T. 19:1, 20:1-2, 22:17-20, it certainly has been an action in which State and Federal coordination has been extremely close.

Arguing that *res judicata* does not apply because there has been no final judgment and that agency principles do not apply because it had no control, the United States further asserts that it would be unfair to enter an order restricting its use of evidence because of spoliation by California. R.T. 78:6-80:4; 81:12-15. Those arguments are not persuasive on the restrictions on evidence the Court recommends. If a witness refused to appear for his deposition or to be sworn, for example, it would not matter who his employer was; the Court could order his trial testimony excluded or impose some other sanction. Likewise, a court can order sanctions against a related party despite the party's assertion that it lacked control. *See, e.g., G-K Properties*, *supra*, 577 F.2d at 648-49. Moreover, to allow a witness to testify on behalf of one party, but not on behalf of the other, where the matters overlap as they do here, would be to reward the spoliation. The Court also notes that the United States, like any other party, could have adduced evidence from the witnesses prior to the hearing, or could have taken their depositions, but chose instead simply to rely on its legal arguments.

Like California, the United States also argues against sanctions because, it says, it appears on behalf of the public and that the facts underlying Defendant's liability are not in serious dispute. R.T. 78:19-24. There has been no determination of liability, and of course Defendant maintains several defenses. The Court notes that Defendant has a pending motion for partial judgment, which has been stayed as a result of the present dispute. Whatever the outcome of that motion, however, and whatever a party perceives as the likely ultimate outcome of the case, does not affect the resolution of the present motion. If, as the United States argues, the factual matters are not seriously in dispute, then

presumably it can establish them. But it cannot establish them through witnesses who have destroyed evidence and have not presented contrary evidence to the showing made by Defendant.

The United States argued in its supplemental memorandum that the Court should be persuaded by a proposed amendment to the Federal Rules of Civil Procedure. That amendment might set different standards for evaluating the impact of destroyed evidence, although it is unclear what its impact would be on a motion brought under the Court's inherent authority. The Court cannot consider the impact of a proposed amendment as giving guidance for how to proceed in the absence of that amendment.

Neither side has briefed, however, the impact of the current provision of the Federal Rules, Rule 37(e). That rule, introduced in 2006 as Rule 37(f) and subsequently renumbered, restricts a court's ability to impose sanctions "under these rules" if a party loses electronically stored information as a result of a good faith operation of an electronic information system. However, as the Advisory Committee noted, "[t]he protection provided by Rule 37(f) applies only to sanctions 'under these rules.' It does not affect other sources of authority to impose sanctions or rules of professional responsibility." FED. R. CIV. P. 37(f) advisory committee's note (2006 amendment). As noted at the beginning, this motion arises solely under the Court's inherent authority, not under the Federal Rules of Civil Procedure.

VII.

In accordance with the foregoing, IT IS RECOMMENDED:

1. That Defendant's Motion for Terminating Sanctions be denied;

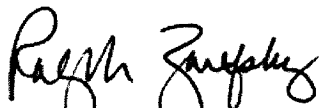
2. That the Court exclude the following witnesses from testifying at trial: Abe, Boggs, Brown, Chastain, Connell, Robin Lewis, Mack, Scott, Stanton and Todd.

3. That California be required to pay for the costs and attorney's fees for taking the depositions of Boyes, Curtis, Dostal, Fonseca, Foto, Gold, Gollhofer, Gross,

McCall, Paz and Wilson. Payment must be for the full deposition of each, not just portions related to spoliation; and

4. That California be required to pay for the costs and attorneys' fees Defendant incurred in connection with this motion.

DATED: April 1, 2015



RALPH ZAREFSKY
UNITED STATES MAGISTRATE JUDGE

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CIVIL MINUTES - GENERAL

Case No.	**CV 11-5097 FMO (RZx)**	Date	**Nov. 20, 2015**
Title	**United States of America, et al. v. HVI Cat Canyon, Inc., f/k/a Greka Oil & Gas, Inc.**		

Present: The Honorable	Fernando M. Olguin, United States District Judge	
Vanessa Figueroa	None	None
Deputy Clerk	Court Reporter / Recorder	Tape No.
Attorney Present for Plaintiff(s):	Attorney Present for Defendant(s):	
None Present	None Present	

Proceedings: **(In Chambers) Order re: Magistrate Judge's Report and Recommendation**

Pursuant to 28 U.S.C. § 636, the court has reviewed the Magistrate Judge's Report and Recommendation ("R&R," Dkt. No. 134) relating to defendant HVI Cat Canyon, Inc. f/k/a Greka Oil & Gas, Inc.'s ("HVI-CC" or "defendant") Joint Memorandum of Points and Authorities Regarding Defendant's Motion for Terminating Sanctions or, in the Alternative, Other Appropriate Sanctions ("Motion," Dkt. No. 98), the Objections to the Report and Recommendation filed by each of the parties, and the responses to those Objections. Having made a de novo determination of the portions of the Report and Recommendation to which Objections were directed, the court concurs with and accepts the findings and conclusions of the Magistrate Judge with modifications.

Plaintiff People of the State of California ex rel. California Department of Fish and Wildlife ("CDFW") and the California Regional Water Quality Control Board, Central Coast Region ("California" or "State"), and the United States of America ("United States" or "Government" and together with California, "plaintiffs") object to the Magistrate Judge's R&R regarding the exclusion of certain witnesses from testifying at trial. (See R&R at 16). The Magistrate Judge recommends that witnesses Kelly Abe ("Abe"), Melissa Boggs ("Boggs"), Dave Brown ("Brown"), Dennis Chastain ("Chastain"), Mike Connell ("Connell"), Robin Lewis ("Lewis), Becky Mack ("Mack"), Bill Scott ("Scott"), Beckye Stanton ("Stanton"), and Charles Robert Todd ("Todd") be excluded. (See id.); (see also Motion at 6, 12-13 & 17-21 (identifying witnesses)). While California objects only to the exclusion of Abe, Boggs, Chastain, Connell, Mack, and Stanton, (see California's Objections to Report and Recommendation of United States Magistrate Judge Regarding Motion for Terminating Sanctions ("State Objs.," Dkt. No. 136) at 2-4), the United States objects to the exclusion of all witnesses, (see United States' Objections to Magistrate Judge's Report and Recommendation on Defendant's Motion for Terminating Sanctions ("Govt. Objs.," Dkt. No. 137) at 2-6), particularly as applied to the Government. (See id. at 6-11). The Government also argues that, to the extent witness exclusion is warranted, it should be limited to four witnesses. (See id. at 11-18).

As an initial matter, the court notes that it takes seriously the principle that "[t]he

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CIVIL MINUTES - GENERAL

Case No.	**CV 11-5097 FMO (RZx)**	Date	**Nov. 20, 2015**
Title	**United States of America, et al. v. HVI Cat Canyon, Inc., f/k/a Greka Oil & Gas, Inc.**		

prosecutor's job isn't just to win, but to win fairly, staying well within the rules[,]" U.S. v. Kojayan, 8 F.3d 1315, 1323 (9th Cir. 1993), and expects plaintiffs to fully abide by it. Thus, the court cannot downplay, as the State seems to do, (see, generally, State Objs.) (failing to address the representations), the inaccurate statements its counsel made to HVI-CC's counsel regarding the issuance of a litigation hold.[1] (See also Evidentiary Appendix for Defendant's Motion for Terminating Sanctions or, in the Alternative, Other Appropriate Sanctions ("Evid. App'x," Dkt. Nos. 99-103), Tab A (Declaration of Emily L. Murray ("Murray Decl.," Dkt. No. 99)), at Exh. 12 (counsel for California stating that "John Holland put a litigation hold in place and notified Wildlife personnel"); Murray Decl., Exh. 16 at 6 (counsel for California stating that "[t]here indeed was a litigation hold directive maintained by Wildlife"). However, those representations themselves did not result in the spoliation of evidence. As HVI-CC points out, discovery was stayed in 2012, and the representations were made primarily in July and August 2014, when counsel for HVI-CC first began raising questions about missing electronic data. (See Motion at 7-9); (see also Murray Decl., at Exh. 12; id., Exh. 16 at 6). The Rule 30(b)(6) deposition regarding the State's document preservation and collection efforts occurred shortly thereafter, on September 16, 2014. (See Motion at 1 & 10). There is no evidence that the State misrepresented the issuance of a litigation hold prior to 2014, or that the parties discussed issues related to preservation efforts prior to the date HVI-CC first raised the issue in the summer of 2014. In other words, there is no evidence that prior to 2014, the State misrepresented that it had issued a litigation hold when indeed it had not. Instead, the representations were made in the summer of 2014, which quickly resulted in HVI-CC filing the instant Motion.

Putting aside the representations, the court's review of the record establishes that there was no showing of intent or bad faith on the part of CDFW in connection with the failure to issue a litigation hold. And the Magistrate Judge concluded as much. (See R&R at 8 ("[T]he Court has seen no evidence that California made a deliberate initial decision not to impose a litigation hold.") (emphasis in original); id. at 9 (noting that with respect to the representations regarding the placement of a litigation hold, California "appears to have acted, or failed to act, in a manner that at least was grossly negligent or reckless"); id. at 13 ("Here, there was a serious blunder – the failure to impose a litigation hold – and the blunder created the circumstance that allowed for evidence to be destroyed. A second blunder compounded the first, when California repeatedly represented that it had placed a litigation hold, when, in fact, it had not. The blunders were serious, but the Court cannot find that they were maliciously motivated, or that they were made with the deliberate intention that evidence would be destroyed.")). At most, it appears that a lack of litigation competence was the cause of any spoliation of evidence. Incompetence, however, is not bad faith. In the absence of a showing of intent or bad faith, a terminating sanction is not warranted under the circumstances of this case. See Apple Inc. v. Samsung Elecs. Co., Ltd., 888

[1] As the Magistrate Judge recognized, the representations "were made by litigation counsel for California, who appears to have been relying on what he had been told either by Mr. Holland or others." (R&R at 8-9).

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CIVIL MINUTES - GENERAL

Case No.	**CV 11-5097 FMO (RZx)**	Date	**Nov. 20, 2015**
Title	**United States of America, et al. v. HVI Cat Canyon, Inc., f/k/a Greka Oil & Gas, Inc.**		

F.Supp.2d 976, 992-93 (N.D. Cal. 2012) ("Ultimately, the choice of appropriate spoliation sanctions must be determined on a case-by-case basis, and should be commensurate to the spoliating party's motive or degree of fault in destroying the evidence."); Realnetworks, Inc. v. DVD Copy Control Ass'n, Inc., 264 F.R.D. 517, 523 (N.D. Cal. 2009) ("[C]ourts should choose the least onerous sanction corresponding to the willfulness of the destructive act and the prejudice suffered by the victim.") (internal quotation marks and citation omitted); see, e.g., Adv. Comm. Notes to Proposed Rule Fed. R. Civ. P. 37(e) (test focuses on proof of "an intent to deprive" and limits most serious remedies "only on a finding of intent to deprive another party of the lost information's use in the litigation.").

Moreover, although the State was not completely forthright in its communications with defendant regarding the issuance of a litigation hold, there is no allegation, much less evidence, that the United States had any role in the conduct at issue. Yet, the R&R recommends that the exclusion sanction apply equally to the United States. (See R&R at 14-16). Such a sanction is not warranted, particularly since the United States is not alleged to have engaged in the spoliation of evidence. See Apple, 888 F.Supp.2d at 995 ("Court is unable to find justification for imposing an adverse inference instruction against all three Samsung entity defendants, where the record only supports a finding that Samsung Electronics Co., Ltd. . . . engaged in any spoliation of evidence."); Toste v. Lewis Controls, Inc., 1996 WL 101189, *7 (N.D. Cal. 1996) ("The present record does not support an order imposing sanctions at trial because an adverse inference against [culpable party] might prejudice [plaintiff]."). The Magistrate Judge reasoned that the United States should be subject to the exclusion sanction because, among other things, it "was intimately involved with this matter from the start[,]" (R&R at 14); its source of information and identification of witnesses included State employees, (id.); there is a "significant intertwining between the factual matters alleged by the State and Federal governments," (id.); and "[i]t has entered into a Common Interest Confidentiality Agreement with the State, predicated in part on 'common interests in their investigation'" of defendant. (Id. at 14-15). However, this close working relationship between the parties is insufficient to sanction the United States for the conduct of the State where there is no showing that the United States played any role or had knowledge of the conduct at issue. See Bonilla v. Volvo Car Corp., 150 F.3d 88, 93 (1st Cir. 1998) (finding sanctions order flawed, in part, because of its "automatic attribution of fault to all defendants"). As the Bonilla court explained:

> There may be instances in which one codefendant is liable for sanctions for the litigation-related misconduct of another defendant, but it would take findings as to knowledge and participation or acquiescence far more specific and detailed than a simple reference to a joint defense. Codefendants cooperate all the time, but that does not mean that one defendant is automatically responsible for misconduct of another – of which it may have no knowledge or as to which it may have played no role, active or passive.

Id. at 93-94. Also, as the United States notes, the R&R "makes no finding that the United States had control over the State's documents, employees, or preservation practice; had an obligation

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CIVIL MINUTES - GENERAL

Case No.	**CV 11-5097 FMO (RZx)**	Date	**Nov. 20, 2015**
Title	**United States of America, et al. v. HVI Cat Canyon, Inc., f/k/a Greka Oil & Gas, Inc.**		

to preserve the State's evidence; participated in any spoliation of the State's evidence; or was subject to sanctions on the basis of res judicata or agency principles." (Govt. Objs. at 6). In short, the sanction imposed upon the Government for the State's litigation conduct is not warranted.

This Order is not intended for publication. Nor is it intended to be included in or submitted to any online service such as Westlaw or Lexis.

Based on the foregoing, IT IS ORDERED THAT:

1. HVI-CC's Motion for Terminating Sanctions Or, in the Alternative, Other Appropriate Sanctions **(Document No. 98)**, is **granted in part** and **denied in part** as set forth below.[2]

2. The following witnesses shall be excluded from testifying at trial on behalf of California: Brown, Lewis, Scott, and Todd. No witnesses shall be excluded from testifying on behalf of the United States.

3. California shall pay HVI-CC's reasonable costs and attorney's fees for taking the depositions of Ed Boyes, Joshua Curtis, Jamie Dostal, Carlos Fonseca, James Foto, Jennifer Gold, Bryan Golhofer, Jorge Gross, Jim McCall, Jorge Paz, Ken Wilson, Abe, Boggs, Chastain, Connell, Mack, and Stanton.

4. California shall pay for the reasonable costs and attorney's fees defendant incurred in connection with the Motion.

00 : 00

Initials of Preparer vdr

[2] Given that proposed Rule 37(e) "forecloses reliance on inherent authority or state law to determine when certain [curative or sanctioning] measures should be used," Adv. Comm. Notes to Proposed Rule 37(e), the parties shall file any motions relating to ESI preservation pursuant to the new Rule 37(e).

BRACKET HEADACHES KEEPING YOU UP AT NIGHT?
UNSURPASSED NIGHTTIME PAIN RELIEF*
Fall asleep faster, stay asleep longer
New at Walmart

SANTA BARBARA NEWS-PRESS

Local

State sanctioned in 'Targate'

Judge likens evidence destruction to Nixon scandal

By SCOTT STEEPLETON, NEWS-PRESS CITY EDITOR
November 27, 2016 12:49 PM

Share Story facebook Tweet

A pioneer in horizontal drilling, Randeep Grewal, founder and CEO of Greka Oil & Gas Inc., now called HVI Cat Canyon Inc., discusses the case against his company at News-Press headquarters.

KENNETH SONG/NEWS-PRESS

A federal judge has smacked the tar out of the state of California for destroying evidence in a civil complaint against the Santa Maria asphalt producer formerly known as Greka Oil & Gas Inc.

Equating government actions to Watergate and the infamous "gap" in a phone call recorded by President Richard Nixon in 1972, the U. S. District Court for the Central District of California has ordered certain state witnesses excluded from testifying as a result of what a judge calls "grossly negligent or reckless" behavior by the state in a case involving oil spills dating to 2005.

In addition, the court in Los Angeles on Nov. 20 also ordered the state to reimburse the company for attorneys' fees it has spent over the past two years on this aspect of the case.

All told, that's an additional $1 million bill to taxpayers, on top of whatever the state and federal governments will have spent once this protracted battle, which is nearing its sixth year, is over.

"A cornerstone of American greatness is you can go to court and get a fair trial," Robert O'Brien, attorney for the company now known as HVI Cat Canyon Inc. (HVI-CC), told the News-Press. "If government doesn't apply the same rules to itself as it does to the rest of us, it undermines the law."

HVI-CC's main product is asphalt, produced from a thick, organic tar extracted from its leases in North County, and used on roadways throughout Santa Barbara County.

In June 2011, state and federal agencies filed a joint federal action against the company over spills of oil and the by-product known as produced water at its leases in Santa Maria between 2005 and 2010.

The case, still making its way through court, took a turn in 2014 when defense attorneys found documents that raised questions about the government's possible destruction of evidence.

In-house counsel for the state Department of Fish and Wildlife made repeated assurances to the court that the agency had put in place a "litigation hold," a

CREDIT SCORE UNDER 680?? CALL US!
• 30 YEAR FIXED RATES
• PURCHASE, REFINANCE AND CASHOUT
• PAYOFF DEBTS AND CREDIT CARDS
• FUNDING LESS THAN TWO WEEKS
• CONVENTIONAL AND PRIVATE MONEY
• Experience • Professionalism • Dedication
Serving S.B. for 25 Years
YOUR DISCOUNT ADVISOR
805-689-6364
Union Financial Group
John Entezari
President

Translate Website
Select Language
Powered by Google Translate

Related Stories
- State in 'scorched earth litigation,' says Greka successor ARCHIVE Dec 4, 2016
- 'Targate' exposes EPA racism, homophobia ARCHIVE Jan 10, 2017
- Greka buys Rincon Island oil field ARCHIVE Nov 8, 2002
- Greka records rise in profits despite revenue drop ARCHIVE Apr 2, 2003
- Letters : Leave issues to the city manager ARCHIVE Apr 16, 2012
- Letters: Williams not getting message ARCHIVE Oct 18, 2010
- Greka having private thoughts ARCHIVE May 23, 2003
- We can try to make world more fair ARCHIVE Sep 21, 2010
- CEO taking Greka private ARCHIVE May 29, 2003
- (MR.) WILL TO POWER : COLUMNIST GEORGE

WILL TO SPEAK AT UCSB ON THE MARKET AND WELFARE
ARCHIVE Nov 18, 2007

standard order that employees preserve certain physical and electronic records that may potentially be relevant in the event of litigation.

Documents reveal, however, there was no such hold. Instead, the state "surveyed" computers — government-speak for destroyed or recycled — upon employees' departures, and emails contained on those computers were lost. Other emails pertaining to the matter were lost when California switched email software, while still others reportedly were lost to hard-drive crashes.

Court documents obtained by the News-Press also indicate there was a state employee involved in the matter who simply "lost" relevant electronic and hard-copy documents.

Some of those records go to a key question: How much product was spilled?

In an interview with the News-Press, company CEO Randeep Grewal, a pioneer in horizontal extraction, said the figures cited by the government are "exponentially" greater than what company records show.

"If I produced a thousand and you're telling me it's a million, what happened to the other 999,000?" he said by way of example. "Where is it (coming from)? Certainly it's not from us."

Since the evidence question came to light in 2014, court papers show the state struggling to explain how it didn't issue a preservation order. State Fish and Wildlife counsel John Holland told the court he "distinctly recalls" writing a memo to that effect and thought he'd sent it to department employees in 2009, the year he says the state first determined litigation might commence.

But, despite a "painstaking" search of his records — and the records of others — by the state, no such memo ever surfaced.

As it turns out, even if the memo had been drafted in 2009 as Mr. Holland stated, another witness testified the state knew of the likelihood of litigation a year earlier.

The state ultimately asserted that waiting until 2009 was nothing more than a simple mistake. But in a 2015 report and recommendation for action over the evidence question, U.S. Magistrate Judge Ralph Zarefsky writes the state, through its interaction with federal authorities, should have known about the potential for litigation as far back as 2005.

"(I)f it was a mistake, it was at the very least a tardy mistake, as the need for preservation arose earlier," the judge writes, adding that what followed "was less free of blame."

When the agencies filed the action against HVI-CC, Judge Zarefsky writes, "one would have thought that the existence of a protocol to preserve evidence would have been verified as part of the initial process ... and double-checked periodically thereafter to make sure that it was being followed. Yet California said that it had imposed such a hold, apparently without ever checking to verify that it had done so."

On several occasions, state officials made representations from which one would naturally conclude that a litigation hold was in place.

"California said that it was working with the employees, both current and retired, to recover metadata," the judge writes, "and gave no indication that, while it was doing so, any electronic information had not been preserved."

State officials, Judge Zarefsky continues, appear "to have acted, or failed to act, in a manner that at least was grossly negligent or reckless. Whether one characterizes the failure to impose a litigation hold, and the subsequent communications about a hold, as grossly negligent, reckless or by some other adjective, the effect of the communications was to mislead both the court and opposing counsel."

Based on its findings, HVI-CC sought to dismiss the complaint, claiming in a motion for terminating sanctions that its case had been prejudiced by the state's actions.

The state's counter? Essentially telling Judge Zarefsky about all the evidence it didn't lose.

The bench found this less than persuasive.

"California has submitted extensive reports that were prepared about the spills, and it details the volume of documents that it has produced," the judge writes. "So the missing evidence is not the only evidence, and that does cabin in the prejudice somewhat. Not entirely, however, and not conclusively."

Continuing his analysis, the judge alludes to the most famous case of government destroying evidence — the Watergate scandal — where a recording of a phone call between an embattled President Nixon and his chief of staff, H.R. Haldeman,

Brooks Brothers

secretly made by the president, wound up with a long gap in it, a fact not discovered until the tape was turned over through a subpoena.

"In theory," Judge Zarefsky writes, "what may be missing may be the most important matters. History warns us that what is lost in an eighteen minute gap in an electronic recording may be more revealing than other evidence that was preserved."

In the interview with the News-Press, Greka/HVI-CC CEO Mr. Grewal was clearly surprised and relieved by the judge's assessment.

"We get a (federal) magistrate to look at the matter, he compares our case to Watergate, as he rightfully should, because that's the truth," he said. "There was data destruction that was not disclosed until it was forced-found through the process and that's because, thank God, some government employee fessed-up in a deposition."

The state, however, had a comeback, claiming the missing evidence was not all that important, that certain employees' email did not constitute anything of consequence.

Judge Zarefsky's response: "What is missing in fact could be evidence that is impeaching."

The judge found that HVI-CC suffered some prejudice as a result of the state's spoliation of evidence. When he sent his recommendation for sanctions against the government to a higher-up for review, however, Judge Zarefsky did not urge a dismissal.

"Here, there was a serious blunder — the failure to impose a litigation hold — and the blunder created the circumstance that allowed for evidence to be destroyed," he writes. "A second blunder compounded the first, when California repeatedly represented that it had placed a litigation hold, when, in fact, it had not."

While "the blunders were serious," Judge Zarefsky continues, "the court cannot find that they were maliciously motivated, or that they were made with the deliberate intention that evidence would be destroyed."

The judge recommended excluding testimony from 10 state witnesses; making the state pay HVI-CC's costs for deposing 11 others; and making the state reimburse HVI-CC's costs and attorneys' fees pertaining to investigating and bringing the motion for sanctions.

In a Nov. 20 order obtained by the News-Press, U.S. District Court Judge Fernando M. Olguin in Los Angeles affirmed Judge Zarefsky's report and recommendation in part, adding some of his own harsh words for the state.

"As an initial matter, the court notes that it takes seriously the principle that '(t)he prosecutor's job isn't just to win, but to win fairly, staying well within the rules' ... and expects plaintiffs to fully abide by it. Thus, the court cannot downplay, as the state seems to do, the inaccurate statements its counsel made to HVI-CC's counsel regarding the issuance of a litigation hold."

Judge Olguin found that, at most, "a lack of litigation competence was the cause of any spoliation of evidence."

Incompetence, however, is not bad faith, he writes.

Judge Olguin cut the excluded witness list to just four, and increased the deposition reimbursement to cover 16 witnesses.

Given the federal government was also part of the investigation, HVI-CC had sought to have terminating sanctions imposed against it as well. But both the magistrate judge and Judge Olguin found this unwarranted.

Defense counsel Mr. O'Brien, noting it took "months and months of litigation" to get the state to admit evidence was destroyed, said he could file as early as next week a motion enforcing the judge's ruling, seeking $959,000 in fees and costs.

"The state can't hold its citizens to one standard and itself to another," he said.

Mr. Grewal, who was born in India and grew up in Zambia and Nigeria, said he's seen governments good and bad around the world, adding, "I candidly did not believe that the government (here) could destroy records."

Making matters worse, however, was its response, he said.

"Instead of the government coming forward and finally admitting and saying, 'Yes, data was destroyed,' and 'Yes, we are the ones that should hold the highest standards because we're trying to get everybody else to meet our standards,' they

actually file an opposition saying the magistrate and the judge exceeded their authority."

He shakes his head in disbelief.

"Exceeded their authority?" he continued with indignation.

The motion was overturned, but, he said, it was truly an "appalling experience.

"It takes your gut in the worst way."

While admitting it's difficult to stay the course, Mr. Grewal, who also owns Ca' Del Grevino vineyards and winery in Santa Maria, said he's planning on doing just that.

"I've been in California since 1983, my family and I live here, we love it here. We're not going to pick up our bags and leave. This is our home. We're going to be here for generations."

"We will go the distance because we chased the truth and were comfortable with the truth, 100 percent comfortable with the truth."

The ultimate handicap for the business owner chasing justice, of course, is the government's infinite war chest.

But there are some battles worth fighting, the billionaire said.

"They destroyed evidence in the middle of litigation. How can they not stand up and take ownership of that?"

"There's no end game but the truth," said Mr. Grewal, "and if that means the Supreme Court, then so be it."

email: ssteepleton@newspress.com

"They destroyed evidence in the middle of litigation. How can they not stand up and take ownership of that?"

Randeep Grewal, Greka/HVI Cat Canyon Inc.

"History warns us that what is lost in an eighteen minute gap in an electronic recording may be more revealing than other evidence that was preserved"

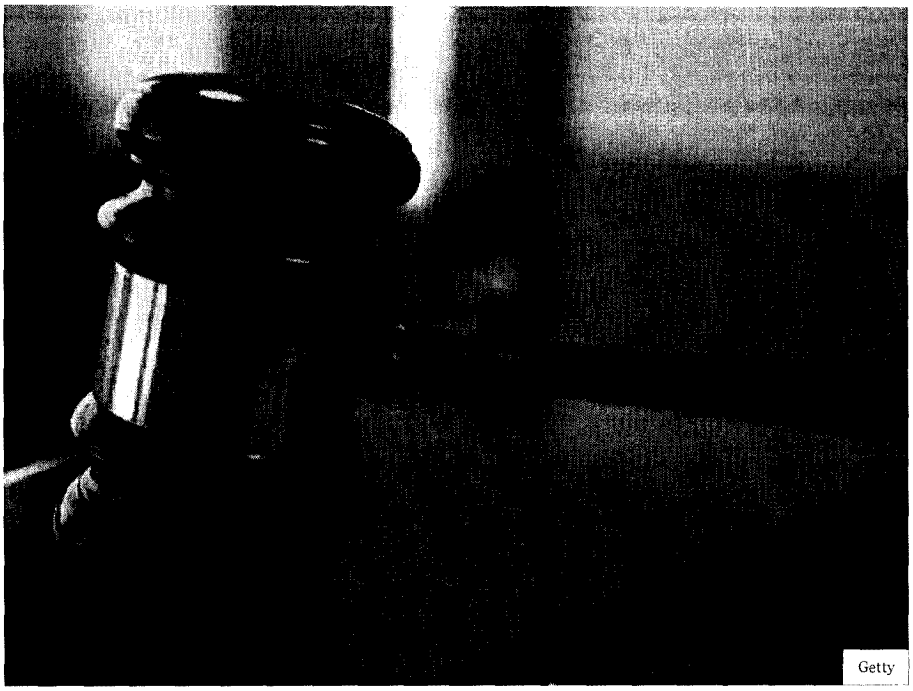
Ralph Zarefsky, U.S. magistrate

All Content Copyright© 2016 Santa Barbara News-Press / Ampersand Publishing, LLC unless otherwise specified.
Legal | About Us

TARGET.
BORDERS.
JCPENNEY.
AND NOW VALEANT. Learn more at therealbillackman.com
report this ad

JUDGE SLAMS CALIFORNIA FOR DESTROYING EVIDENCE IN 'TARGATE'

61 3


Getty

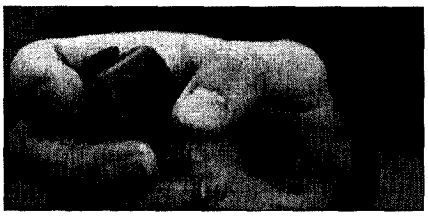
by JOEL B. POLLAK | 29 Nov 2016 | 72

A federal judge rebuked the State of California last week for destroying potentially exculpatory evidence in a case against an asphalt company accused of oil spills.

SIGN UP FOR OUR NEWSLETTER
email address SUBMIT

The company, formerly known as Greka Oil & Gas Inc., and now known as HVI Cat Canyon Inc. (HVI-CC), was accused of "spills of oil and the by-product known as produced water at its leases in Santa Maria between 2005 and 2010," where it harvested organic tar for use on California roads, the *Santa Barbara News-Press* reports.

The state and federal governments filed a joint action against the company in 2011. But the company claimed that the amount of oil it is accused of spilling is "exponentially" greater than the amount it actually produced. The California Department of Fish and Wildlife was responsible for collecting the evidence against the company. But it delayed placing a "litigation hold" on information it had compiled, and as a result, significant evidence was

Weird New Gadget Gives ADHD Sufferers Laser Sharp Focus
Revolutionary new Focus Gadget flying off the shelves after finally being released to public.

report this ad
advertisement

BREITBART CONNECT

SIGN UP FOR OUR NEWSLETTER
email address SUBMIT

BREITBART VIDEO PICKS
AP Gorsuch Says He's Made No Promises for Rulings
AP

MORE VIDEOS:

erased or destroyed. Worse, the state government told the courts repeatedly that it had put in place a "litigation hold" to preserve the evidence, when in fact it had not done so.

U.S. Magistrate Judge Ralph Zarefsky recommended that the state face sanctions for its behavior — though he declined to recommend that the case be dismissed, since the destruction may have been negligent rather than malicious.

In a ruling quoted by the *News-Press*, he referred to the Watergate scandal, in which President Richard M. Nixon withheld key tapes of White House conversations: "History warns us that what is lost in an eighteen minute gap in an electronic recording may be more revealing than other evidence that was preserved," he wrote.

Reviewing Zarefsky's recommendations, U.S. District Court Judge Fernando M. Olguin also reportedly reprimanded the state, and he ruled that the state would not be able to call on four tainted witnesses. "[T]he court cannot downplay, as the state seems to do, the inaccurate statements its counsel made to HVI-CC's counsel regarding the issuance of a litigation hold," he said, according to the *News-Press*. He also ordered the state to reimburse nearly $1 million to the defendant's lawyers for depositions involving 16 witnesses.

The case against the company is still ongoing.

Joel B. Pollak is Senior Editor-at-Large at Breitbart News. His new book, See No Evil: 19 Hard Truths the Left Can't Handle, *is available from Regnery through Amazon. Follow him on Twitter at @joelpollak.*

READ MORE STORIES ABOUT:
Breitbart California, Environment, asphalt, california courts, destroying evidence, Environment, justice, Sanctions, targate

report this ad

We Recommend

Sponsored Links by Taboola

How This New Treatment Can Change Women's Intimate Life After 50
Syneron Candela

Troubled News Anchor Does The Unthinkable On Air
Trend Chaser

Michelle Obama's IQ Will Make You Laugh Out Loud
LikeItViral

Veteran Homeowners Get A Huge Reward In 2017
Morning Finance | LendingTree Quotes

California Homeowners Going Solar at No Cost. Here's How...
Free Solar Quotes

Why Have I Not Thought Of This? 30 Car Cleaning Tips You Need To Try! [Photos]
Activly

report this ad

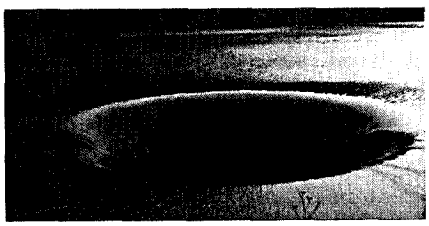
YOU MIGHT LIKE

Sponsored Links

How This New Treatment Can Change Women's Intimate Life After 50
Syneron Candela

Veteran Homeowners Get A Huge Reward In 2017
Morning Finance | LendingTree Quotes

Troubled News Anchor Does The Unthinkable On Air
Trend Chaser



25 Most Restricted Places On Earth - Number 23 Is The Thing Of Nightmares
The Brofessional

by Taboola

report this ad

advertisement

SANTA BARBARA NEWS-PRESS

Tuesday, March 21, 2017

Local

Greka successor: EPA fabricated evidence

By PAUL GONZALEZ, NEWS-PRESS STAFF WRITER
November 30, 2016 5:39 AM

Share Story Facebook Tweet

On the heels of a judge's ruling that the state destroyed evidence in a civil complaint against the Santa Maria asphalt producer formerly known as Greka Oil & Gas Inc., the company accuses the federal government of fabricating evidence as part of an investigation into oil spills, some of which date back more than a decade.

Now, attorneys for the privately held successor company HVI Cat Canyon Inc. want to do the unusual: question an attorney with the Environmental Protection Agency about his dealings with the agency's on-scene investigation coordinator.

In papers filed with the United States District Court in Los Angeles, the attorney for HVI-CC states evidence from the testimony of EPA attorney Michael Massey is not available from any other source.

"The topics on which HVI-CC seeks Mr. Massey's testimony are appropriate and of such significance that the deposition of opposing counsel is justified, regardless of the legal framework the Court applies," according to the filing obtained by the News-Press.

HVI-CC produces asphalt from a thick, organic tar extracted from its leases in North County. It is used on roadways throughout the county.

In June 2011, state and federal agencies filed a joint case against the company over spills of oil and the by-product known as produced water between 2005 and 2010.

The government is now seeking millions in cleanup costs.

HVI-CC attorney Robert O'Brien says the defense obtained documents that raised questions about the possible fabrication of evidence.

Now he wants the latitude to question Mr. Massey on his relationship with EPA On-Scene Coordinator Robert Wise, who was in charge of determining whether the EPA had jurisdiction over HVI-CC facilities.

Mr. Wise controlled virtually every aspect of the federal response to the incidents.

In a 2007 pollution report, the defense claims Mr. Wise fabricated a rain forecast and used that as a justification for federal intervention.

Documents allege that the forecast for rain was based on information that came out after the date in question.

"I made the decision that there was a potential for a discharge of oil to the waters of the U.S. based on the current information we had that there was rain expected, that water could flow from Asphalt Creek all the way to ... the Santa Maria River," says Mr. Wise in court papers.

According to the defense, however, there was no such forecast at the time of the report.

CREDIT SCORE UNDER 680?? CALL US!
• 30 YEAR FIXED RATES
• PURCHASE, REFINANCE AND CASHOUT
• PAYOFF DEBTS AND CREDIT CARDS
• FUNDING LESS THAN TWO WEEKS
• CONVENTIONAL AND PRIVATE MONEY
• Experience • Professionalism
• Dedication
Serving S.B. for 25 Years
YOUR DISCOUNT ADVISOR
805-689-6364
UNION FINANCIAL GROUP
John Entezari
President

Translate Website
Select Language
Powered by Google Translate

Related Stories
- Greka to pay county $2mil to settle spill fines ARCHIVE Mar 16, 2011
- Greka cleanup progress ARCHIVE May 24, 2008
- Drug charge sends repeat offender to jail for 25 years ARCHIVE Dec 1, 2006
- 550-gallon oil spill reported at Greka lease ARCHIVE Jun 15, 2007
- Oil spill at Greka plant ARCHIVE Mar 3, 2008
- IN BRIEF : Nava supports state action against Greka ARCHIVE Jul 9, 2009
- Two hurt at Greka lease ARCHIVE Sep 21, 2010
- Nava touring Greka spill site ARCHIVE Dec 10, 2007
- IN BRIEF: Nava applauds possible action vs. Greka

HVI-CC is also contesting the government's assertion that rain is irrelevant to the issue of EPA jurisdiction, noting that Mr. Wise says rain was the basis of his jurisdictional determination that serves as the guide for the federal government's claims for cleanup costs.

"In fact, the United States is so desperate to provide some basis for Mr. Wise's false statement that it references weather reports from Mr. Wise's home area in Oxnard, California - some 100 miles away from the relevant facilities - as if those reports could support a conclusion that rain was expected outside Santa Maria."

HVI-CC also asserts that Mr. Massey provided Mr. Wise with legal advice and had the authority to overrule his determination.

The defense wants to know why he didn't do so, and because the government has declined to allow Mr. Wise to testify, Mr. Massey is the only available source for the information.

"(N)o matter how much the United States may want to run from Mr. Wise, he is the most important fact witness in this case," Mr. O'Brien states.

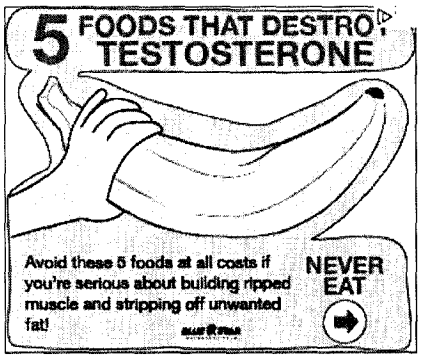
A hearing is set for Dec. 13 in Los Angeles.

As the News-Press reported Nov. 27, a federal judge, having found that the state of California destroyed evidence in the matter, awarded HVI-CC attorneys' fees associated with bringing forth the allegation - an amount close to $1 million - and barred certain state witnesses from testifying against the company.

email: pgonzalez@newspress.com

ARCHIVE Jul 19, 2009
- Spill reported at Greka facility

ARCHIVE Mar 19, 2009



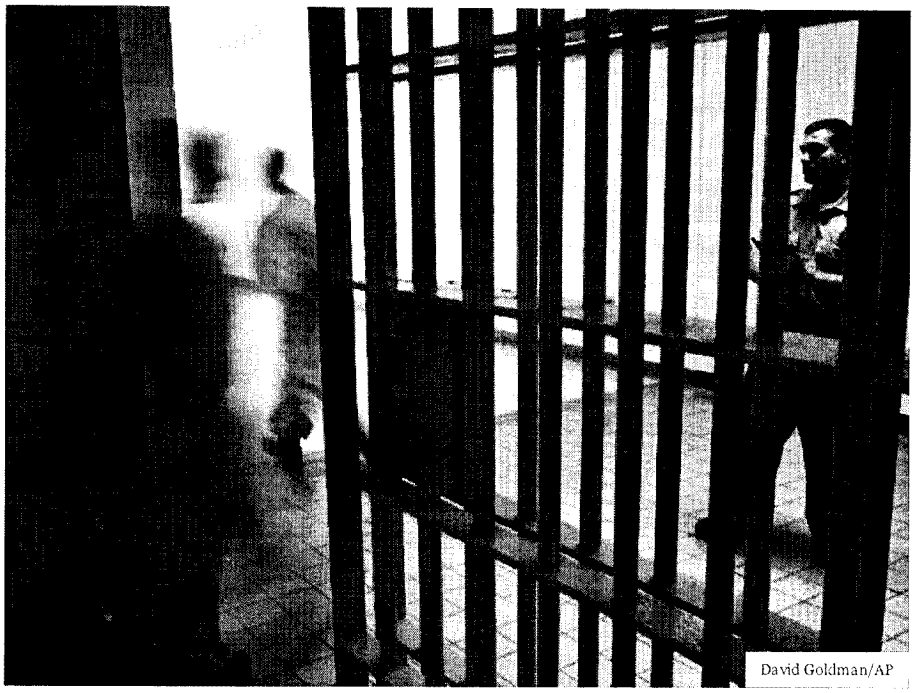
All Content Copyright© 2016 Santa Barbara News-Press / Ampersand Publishing, LLC unless otherwise specified.
Legal | About Us

Cuba Travel Package/Deals
AdHHHYES! US Citizens Can Travel to Cuba Easy, Cheap & Best Cuban Experience
culturalislandtravel.com/TravelCuba

report this ad

LAWSUIT: EPA OFFICIAL USED RACIST, HOMOPHOBIC THREAT OF PRISON RAPE

1849 6



David Goldman/AP

by JOEL B. POLLAK | 10 Jan 2017 311

SIGN UP FOR OUR NEWSLETTER
email address SUBMIT

An Environmental Protection Agency (EPA) official allegedly threatened executives at an energy company by telling them he would send them to prison to be raped by a black male prisoner named "Leroy," the *Santa Barbara News-Press* reports.

The claim has emerged from a civil case brought by the EPA against a company formerly known as Greka Oil & Gas Inc., and now known as HVI Cat Canyon Inc. (HVI-CC), concerning oil spills near its tar leases in California. The company is fighting back in the case — and, in the course of its defense, exposed the State of California's destruction of potentially exculpatory evidence, a scandal that local media have dubbed "Targate."

Now, the EPA is faced with accusations of racism and homophobia, the *News-Press* reports:

Cuba Travel Package/Deals
AdHHHYES! US Citizens Can Travel to Cuba Easy, Cheap & Best Cuban Experience
culturalislandtravel.com/TravelCuba

report this ad
advertisement

BREITBART CONNECT

SIGN UP FOR OUR NEWSLETTER
email address SUBMIT

BREITBART VIDEO PICKS
Trump to House GOP: Keep Health Care Promise
AP

MORE VIDEOS:

> The racist and homophobic statements came to light in depositions of Andrew deVegvar, former president of Greka — now known as HVI Cat Canyon Inc. — and Rob Wise, the Environmental Protection Agency's on-scene cleanup coordinator in a six-year-old civil action that could cost the company millions in fines.
>
> Some of the spills date back to 2005.
>
> Mr. deVegvar told a company attorney in a deposition that, in 2008, Mr. Wise "made comments about how he was going to put me and (Greka founder) Randeep (Grewal) in jail, and I would become intimate with Leroy," according to a transcript. "He made comments about how — whether or not Randeep was ready to file bankruptcy and showed a certain glee in putting the company in bankruptcy and asked me to give him at least 48 hours' notice before the filing."
>
> While being deposed, Mr. Wise didn't deny trying to force the men to comply through use of racist and homophobic threats and stereotyping. Instead, he said repeatedly he didn't recall making such statements.

"Leroy" was unavailable for comment.

Joel B. Pollak is Senior Editor-at-Large at Breitbart News. He was named one of the "most influential" people in news media in 2016. His new book, How Trump Won: The Inside Story of a Revolution, *is available from Regnery. Follow him on Twitter at @joelpollak.*

READ MORE STORIES ABOUT:

Big Government, Breitbart California, Environment, Environmental Protection Agency, EPA, greka, Homophobia, hvi, Nashville Marriott, prison rape, racism, santa barbara news-press

report this ad

We Recommend

Sponsored Links by Taboola

Shocking Pictures of World War II
Bonner & Partners

Troubled News Anchor Does The Unthinkable On Air
Trend Chaser

California Landlines Get Replaced (But Not With Cell Phones)
Consumer Daily

What Peggy Bundy Looks Like Now Will Make You Shiver
LikeItViral

Here's the Only Pen You'll Ever Need. 8 Reasons Why.
ABP Tactical Pen

SoCal Edison Customers Going Solar at No Cost
The Solar Institute

report this ad

YOU MIGHT LIKE

Sponsored Links

Veterans Hit the Jackpot in 2017 in California
Morning Finance | LendingTree Quotes

Troubled News Anchor Does The Unthinkable On Air
Scribol

What Peggy Bundy Looks Like Now Will Make You Shiver
LikeItViral

Group That Predicted WW2 Makes New Prediction
Bonner & Partners

by Taboola

report this ad

advertisement

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE ADMINISTRATOR

Dear Mr. & Mrs. Ward —

(b) (6)

[redacted]

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

Fri Mar 24 10:58:25 EDT 2017
Hope.Brian@epamail.epa.gov
FW: OBPA issue to The Administrator of the Environmental Protection Agency
To: CMS.OEX@epamail.epa.gov

From: Spanish dealer [mailto:spanish-dealer@sonersl.com]
Sent: Thursday, March 23, 2017 5:52 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: OBPA issue to The Administrator of the Environmental Protection Agency

Dear Mr. Pruitt,

My name is Maria and I write you from

spain. My company represent White River Group, one of the largest boats builders innhe USA and we sell the boats in Europe.

Recently, the National Marine Manufacturers Association sent out a notice that the European Union (EU) has banned OBPA (Oxybisphonoxyarsine), a biocide processed in marine vinyl material that prevents pink staining. OBPA is a derivative of arsenic and therefore quite polluting especially for animals: birds and fish. Prior to 2010, a law was enacted at European level for the ordering of all chemicals to be manufactured and consumed in the European Union. In 2011 a special law was signed to evaluate, categorize and authorize all types of biocides (fungal and bacterial prophylactic agents). And in 2012 (9 February) a list of products banned in the EU (including the OBPA) was approved, giving a 5-year deadline for its replacement. Those 5 years have been fulfilled on February 28 of this year and hence you can no longer import anything that contains them. The manufacturer could have set to work 5 years ago, although it obviously opted to exhaust the deadline, probably thinking that it would increase the deadline or lower the requirement.

The breakdown of each boat built at White River Group may be affected with OBPA, from cushions to seats to flooring to fasteners.

I researched the subject and found this report attached from the United States Environmental Protection Agency (EPA) on OBPA. Frankly, since OBPA is highly corrosive, it would be very highly toxic to birds, highly toxic to terrestrial organisms, highly toxic to both freshwater and marine fish, and highly toxic to freshwater aquatic and marine invertebrates” so I think that the EPA will not take long to ban the OBPA as highly toxic to the environment as the European Union has done.

Please could you tell me to whom of your colleges at the EPA can you forward this email and can I contact with? I really appreciate your help

Thank you very much

Best regards

Maria*

SONER MARINE
Mobile: (b) (6) [redacted]
www.sonersl.com

Lantz, Tracy

From: Grigsby, Stacey
Sent: Thursday, April 06, 2017 1:26 PM
To: Spanish-dealer@sonersl.com
Cc: Lantz, Tracy; ONeill, Sandra
Subject: Re: OPBA Inquiry

Greetings Maria,

This is the acknowledge receipt of your 3/23/17 email inquiry to EPA Administrator Pruitt regarding the chemical OPBA.

Please feel free to contact me directly with any comments, questions, or concerns regarding the use of this chemical in the United States.

Thank you.

Sincerely,

Stacey Grigsby, Acting Product Manager, 34
Regulatory Management Branch II
Antimicrobials Division (7510P)

Fri Mar 24 15:58:12 EDT 2017
Hope.Brian@epamail.epa.gov
FW: OBPA issue to The Administrator of the Environmental Protection Agency
To: CMS.OEX@epamail.epa.gov

From: Chus Picaza Soner [mailto:chus@sonersl.com]
Sent: Friday, March 24, 2017 11:07 AM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: OBPA issue to The Administrator of the Environmental Protection Agency
Importance: High

OBPA issue to The Administrator of the Environmental Protection Agency

Dear Mr. Pruitt,

My name is Maria and I write you from

spain. My company represent White River Group, one of the largest boats builders innhe USA and we sell the boats in Europe.

Recently, the National Marine Manufacturers Association sent out a notice that the European Union (EU) has banned OBPA (Oxybisphonoxyarsine), a biocide processed in marine vinyl material that prevents pink staining. OBPA is a derivative of arsenic and therefore quite polluting especially for animals: birds and fish. Prior to 2010, a law was enacted at European level for the ordering of all chemicals to be manufactured and consumed in the European Union. In 2011 a special law was signed to evaluate, categorize and authorize all types of biocides (fungal and bacterial prophylactic agents). And in 2012 (9 February) a list of products banned in the EU (including the OBPA) was approved, giving a 5-year deadline for its replacement. Those 5 years have been fulfilled on February 28 of this year and hence you can no longer import anything that contains them. The manufacturer could have set to work 5 years ago, although it obviously opted to exhaust the deadline, probably thinking that it would increase the deadline or lower the requirement.

The breakdown of each boat built at White River Group may be affected with OBPA, from cushions to seats to flooring to fasteners.

I researched the subject and found this report attached from the United States Environmental Protection Agency (EPA) on OBPA. Frankly, since OBPA is highly corrosive, it would be very highly toxic to birds, highly toxic to terrestrial organisms, highly toxic to both freshwater and marine fish, and highly toxic to freshwater aquatic and marine invertebrates" so I think that the EPA will not take long to ban the OBPA as highly toxic to the environment as the European Union has done.

Please could you tell me to whom of your colleges at the EPA can you forward this email and can I contact with? I really appreciate your help

Thank you very much,

Best regards

Maria* Picaza

Street Venecia 20 - Europolis - Las Rozas de Madrid Zip code 28232 – City: Madrid - Spain

Office + 34 913 72 96 10 Cell: +(b) (6)
E-mail: chus@sonersl.com www.sonersl.com

Soner marine

Atentamente,

Chus* Picaza

Calle Venecia Nº 20 - Europolis - Las Rozas de Madrid 28232 – Madrid

TELF. + 34 913 72 96 10 Mov: +(b) (6)
E-mail: chus@sonersl.com www.sonersl.com

Facebook: soner marine

Fri Mar 24 11:02:16 EDT 2017
Hope.Brian@epamail.epa.gov
FW: Petition for Writ of Certiorari in American Municipal Power, Inc. v. United States Environmental Protection Agency, et al.
To: CMS.OEX@epamail.epa.gov

DRF

Full copy to Ryan

From: Donna J. Wolf, J.D. [mailto:donna@beckergallagher.com]
Sent: Thursday, March 23, 2017 4:07 PM
To: SupremeCtBriefs@USDOJ.gov; Pruitt, Scott <Pruitt.Scott@epa.gov>; jeffrey.knight@pillsburylaw.com; blane@kilpatricktownsend.com; =?us-ascii?Q?'claudia.o'brien=40lw.com'?=@domain.invalid; tbishop@mayerbrown.com; jluxton@clarkhill.com; lfreeman@hunton.com; sbroome@hunton.com; qriegel@nam.org; wwehrum@hunton.com; jpew@earthjustice.org; sanjay.narayan@sierraclub.org; lalexander@jonesfoster.com; cmccabe@mankogold.com; Lisa.Jaeger@bracewelllaw.com; Brittany.Pemberton@bracewelllaw.com; douglas.mcwilliams@squirepb.com; ron@rshipleylaw.com; dfriedland@bdlaw.com
Cc: Cheren, Bobby D. <bobby.cheren@squirepb.com>
Subject: Petition for Writ of Certiorari in American Municipal Power, Inc. v. United States Environmental Protection Agency, et al.

Attached please find the Petition for Writ of Certiorari in *American Municipal Power, Inc. v. United States Environmental Protection Agency, et al.* Copies are being sent to the Court and Counsel today March 23, 2017, via Federal Express Next Day. The Petition is also being sent via e-mail this 23rd day of March, 2017, to the following parties listed below.

Case No. and title:

Petition for Writ of Certiorari in *American Municipal Power, Inc. v. United States Environmental Protection Agency, et al.*

Names & email address of individuals served:

See attached service list.

The original certificate of service and certificate of compliance are being sent to the Court.

If you have any questions or concerns regarding this information, please do not hesitate to contact me. Thank you for your consideration.

Sincerely,

Donna

Donna J. Wolf

513.340.7104

Donna J. Wolf, J.D.

Becker Gallagher
Washington, DC; Cincinnati, OH

800.890.5001 ext. 104

513.340.7104 direct
www.beckergallagher.com

The information contained in this communication, including all attachments, is confidential, and is intended only for the use of the addressee. It is the property of Becker Gallagher Legal Publishing, Inc. Unauthorized use, disclosure or copying of this communication or any part thereof is strictly prohibited and may be unlawful. If you received this communication in error, please notify us immediately by return e-mail to the address shown above or by e-mail to John@beckergallagher.com, and destroy this communication and all copies thereof, including all attachments.

No. _____

IN THE

Supreme Court of the United States

AMERICAN MUNICIPAL POWER, INC.,

Petitioner,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, et al.,

Respondents.

On Petition for a Writ of Certiorari to the United States Court of Appeals for the District of Columbia Circuit

PETITION FOR WRIT OF CERTIORARI

DOUGLAS A. MCWILLIAMS
Counsel of Record
ALLEN A. KACENJAR
ROBERT D. CHEREN
SQUIRE PATTON BOGGS (US) LLP
4900 Key Tower
127 Public Square
Cleveland, Ohio 44114
(216) 479-8332
douglas.mcwilliams@squirepb.com

Counsel for Petitioner

March 23, 2017

QUESTION PRESENTED

The regulation upheld by the court of appeals in this case requires impossible perfect performance that even EPA admits has never been achieved and is in fact unachievable because accidents are an inevitable fact of industrial life. This ruling leaves hundreds of thousands of sources across the country at the mercy of EPA enforcement and citizen suits and threatens to generate unnecessary and unproductive litigation in federal district courts across the country.

The question presented is:

Can EPA lawfully issue emission standards under Clean Air Act Section 112(d) that require impossible perfect performance and outlaw accidental releases?

PARTIES TO THE PROCEEDING

Petitioner American Municipal Power, Inc. was a petitioner and intervenor in support of respondents in the court of appeals.

The United States Environmental Protection Agency and Gina McCarthy were the respondents in the court of appeals.*

American Chemistry Council; American Coke and Coal Chemicals Institute; American Forest and Paper Association; American Iron & Steel Institute; American Petroleum Institute; American Wood Council; Biomass Power Association; Chamber of Commerce of the United States of America; Clean Air Council; Coalition for Responsible Waste Incineration; Corn Refiners Association; Council of Industrial Boiler Owners; Eastman Chemical Company; Environmental Integrity Project; JELD-WEN, Inc.; Louisiana Environmental Action Network; National Association of Manufacturers; National Oilseed Processors Association; Partnership for Policy Integrity; Rubber Manufacturers Association; Sierra Club; Southeastern Lumber Manufacturers Association, Inc.; Treated Wood Council; United States Sugar Corporation; and Utility Air Regulatory Group were petitioners in the court of appeals.

American Chemistry Council; American Coke and Coal Chemicals Institute; American Forest and Paper Association; American Gas Association; American Home Furnishings Alliance, Inc.; American Iron &

---

* Administrator Scott Pruitt was "automatically substituted as a party" because he has now succeeded Gina McCarthy. Fed. R. App. P. 43(c)(2).

Steel Institute; American Petroleum Institute; American Wood Council; Auto Industry Forum; Biomass Power Association; Chamber of Commerce of the United States of America; Clean Air Council; Coalition for Responsible Waste Incineration; Corn Refiners Association; Council of Industrial Boiler Owners; Eastman Chemical Company; Energy Recovery Council; Florida Sugar Industry; Hovensa, LLC; JELD-WEN, Inc.; National Association of Manufacturers; National Oilseed Processors Association; Partnership for Policy Integrity; Rubber Manufacturers Association; Sierra Club; Society of Chemical Manufacturers and Affiliates; Southeastern Lumber Manufacturers Association, Inc.; Tesoro Hawaii Corporation; United States Sugar Corporation; Utility Air Regulatory Group; Waste Management, Inc.; and WM Renewable Energy, LLC were intervenors in support of the respondent in the court of appeals.

CORPORATE DISCLOSURE STATEMENT

American Municipal Power, Inc. ("AMP") is a non-profit corporation headquartered in Columbus, Ohio, that provides services on a cooperative, non-profit basis for its member communities operating municipal electric systems. AMP has over 130 members in 9 states. AMP has no parent corporation and no publicly held company has a ten percent (10%) or greater ownership interest in AMP.

CONTENTS

QUESTION PRESENTED i

PARTIES TO THE PROCEEDING ii

CORPORATE DISCLOSURE STATEMENT iv

PETITION FOR WRIT OF CERTIORARI 1

OPINIONS BELOW 2

JURISDICTION 2

STATUTORY PROVISIONS INVOLVED 2

STATEMENT OF THE CASE 3

A. The Clean Air Act requires EPA to regulate routine emissions from stationary sources with "achievable" Section 112(d) emission standards..3

B. The Clean Air Act requires EPA to regulate unanticipated emissions through the Section 112(r) accidental release program. 6

C. The D.C. Circuit Court of Appeals required EPA to regulate unanticipated emissions using Section 112(d) in *Sierra Club v. EPA*. 10

D. EPA promulgated Section 112(d) standards that outlaw accidental releases and require the impossible due to the *Sierra Club* decision. 12

E. The D.C. Circuit Court of Appeals upheld the impossible standards based on *Sierra Club*. 16

F. The D.C. Circuit Court of Appeals refused to reconsider *Sierra Club*. 20

REASONS FOR GRANTING THE PETITION 21

I. The court of appeals erroneously affirmed the impossible Section 112(d) emission standards and wrongly adhered to *Sierra Club*. 21

A. Section 112(d) emission standards cannot require impossible perfect performance. 21

B. Based on the erroneous *Sierra Club* decision, the court of appeals has wrongly constrained EPA's authority.....25

II. EPA's unachievable standards have far-reaching implications and threaten to unleash a scourge of private citizen suits. 30

III. The Court's review is especially warranted because of the exclusive jurisdiction of the D.C. Circuit and the substantial burdens its decisions impose on the federal courts. 35

CONCLUSION 36

APPENDICES

Appendix A

Opinion of the United States Court of Appeals for the District of Columbia Circuit, dated July 29, 2016 .....App-1

Appendix B

Opinion of the United States Court of Appeals for the District of Columbia Circuit, dated December 23, 2016 .....App-168

Appendix C

Order of the United States Court of Appeals for the District of Columbia Circuit, dated December 23, 2016 (*en banc*) App-172

Appendix D

Order of the United States Court of Appeals for the District of Columbia Circuit, dated December 23, 2016 ..... App-174

Appendix E

Judgment of the United States Court of Appeals for the District of Columbia Circuit, dated December 23, 2016 ..... App-177

Appendix F

42 U.S.C. §7412 ..... App-180

42 U.S.C. §7413 ..... App-278

42 U.S.C. §7604 ..... App-296

TABLE OF AUTHORITIES

Cases

Alabama Power Co. v. Costle
636 F.2d 323 (D.C. Cir. 1979) 28–29

Army Corps of Eng'rs v. Hawkes, Co.
136 S. Ct. 1807 (2016) 19

Cardinal Chem. Co. v. Morton Int., Inc.
508 U.S. 83 (1993) 35

Henderson ex rel. Henderson v. Shinseki
562 U.S. 428 (2010) 35 n.10

Hughey v. JMS Dev. Corp.
78 F.3d 1523 (11th Cir. 1996) 28 n.8

Kingdomware Techs., Inc. v. United States
136 S. Ct. 1969 (2016) 35 n.10

Michigan v. EPA
135 S. Ct. 2699 (2015) 12 n.5, 22 n.7, 35 n.10

National Cable & Teleccom. Ass'n v. Brand X Internet Services
545 U.S. 967 (2005) 35 n.10

Natural Res. Def. Council v. EPA
859 F.2d 156 (D.C. Cir. 1988) 34

Natural Res. Def. Council v. EPA
749 F.3d 1055 (D.C. Cir. 2014) 14, 18, 32–33

Ohio v. EPA
997 F.2d 1520 (D.C. Cir. 1993) 28 n.8

Portland Cement Ass'n v. Ruckelshaus
486 F.2d 375 (D.C. Cir. 1973) 9, 21, 22

Sebelius v. Cloer
133 S. Ct. 1886 (2013) 35 n.10

SEC v. Chenery Corp.
318 U.S. 80 (1943) 17 n.6, 22 n.7

Sierra Club v. EPA
551 F.3d 1019 (D.C. Cir. 2008) 11, 25

United States v. Eurodif S.A.
555 U.S. 305 (2009) 35 n.10

Utility Air Regulatory Group v. EPA
134 S. Ct. 2427 (2014) 20, 26, 28, 35 n.10

Wisconsin Dept. of Rev. v. William Wrigley, Jr., Co.
505 U.S. 214 (1992) 27

Valley Forge Christian Coll. v. Ams. United for Sep. of Church & State, Inc.
454 U.S. 464 (1982) 32

Volkswagenwerk, A.G. v. FMC
390 U.S. 261 (1968) 28 n.8

Statutes

Clean Air Act, 42 U.S.C. §§7401–7671q:
42 U.S.C. §7412(a)–(k) 3
42 U.S.C. §7412(a)(1) 3
42 U.S.C. §7412(a)(1) (1988) 3 n.1
42 U.S.C. §7412(a)(2) 4
42 U.S.C. §7412(a)(7) 3 n.1
42 U.S.C. §7412(b)(2) 27
42 U.S.C. §7412(b)(3)(C) 3 n.1
42 U.S.C. §7412(c) 3
42 U.S.C. §7412(c)(3) 4
42 U.S.C. §7412(d) 4, 14, 21, 25, 26
42 U.S.C. §7412(d)(2) 22
42 U.S.C. §7412(d)(5) 4
42 U.S.C. §7412(h) 4
42 U.S.C. §7412(n) 3
42 U.S.C. §7412(i)(1) 4, 22, 34
42 U.S.C. §7412(r) 29
42 U.S.C. §7412(r)(1) 6, 8, 24
42 U.S.C. §7412(r)(2)(A) 6, 27

42 U.S.C. §7412(r)(3) 6
42 U.S.C. §7412(r)(7) 7
42 U.S.C. §7412(r)(7)(B)(i) 23, 29
42 U.S.C. §7412(r)(7)(B)(ii)–(iii) 7
42 U.S.C. §7412(r)(7)(E) 8
42 U.S.C. §7412(r)(9) 7–8
42 U.S.C. §7412(n) 3
42 U.S.C. §7413(a)(3) 4
42 U.S.C. §7413(a)(5) 4
42 U.S.C. §7413(b) 4
42 U.S.C. §7413(c)(1) 5, 33
42 U.S.C. §7413(c)(4) 8, 9, 24, 29
42 U.S.C. §7413(d) 4
42 U.S.C. §7602(k) 25
42 U.S.C. §7604 ..... 4, 32
42 U.S.C. §7604(a) 33
42 U.S.C. §7604(a)(1) 9 n.2
42 U.S.C. §7604(d) 5, 32
42 U.S.C. §7607(b)(1) 35
42 U.S.C. §7607(b)(2) 19, 35
42 U.S.C. §7661a(b)(8) 5, 32
42 U.S.C. §7661b(b)(2) 5, 32

Unfunded Mandates Reform Act
2 U.S.C. §1501(2) 33
2 U.S.C. §1513(a)(3) 33

Regulations

40 C.F.R. §63.2 10

40 C.F.R. §63.6(f)(1) & (h)(1) 10

40 C.F.R. Part 63, Subparts DDDDD & JJJJJJ 12

Other Authorities

37 Fed. Reg. 17,214 (Aug. 25, 1972) 9, 21

59 Fed. Reg. 12,408 (Mar. 16, 1994) 10

68 Fed. Reg. 32,586 (May 30, 2003) 10

76 Fed. Reg. 15,554 (Mar. 21, 2011) 2, 30

76 Fed. Reg. 15,608 (Mar. 21, 2011) 2, 13, 15, 26

78 Fed. Reg. 7,138 (Jan. 31, 2013) 2

78 Fed. Reg. 7,488 (Feb. 1, 2013) 2

80 Fed. Reg. 50,386 (Aug. 19, 2015) 31

80 Fed. Reg. 56,700 (Sept. 18, 2015) 31

Brief for Pet., Decl. of Jane Williams, *NRDC v. EPA*, 749 F.3d 1055 (D.C. Cir. 2014) 32

Brief for Respondent, *U.S. Sugar Corp. v. EPA*, No. 11-1108 (D.C. Cir. Feb. 11, 2015) 16–17

Brief of Sierra Club, et al., *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008) 10–11

Comment by Am. Lung Ass'n, EPA-HQ-OAR-2002-0058-3679 13–14

Comment by Am. Wood Council, EPA-HQ-OAR-2002-0058-3212 ..... 9 n.3

Comment by Council of Industrial Boiler Owners, EPA-HQ-OAR-2002-0058-2702.1 14

Comment by DuPont, EPA-HQ-OAR-2002-0058-2793 14

Comment by Morton Salt EPA-HQ-OAR-2002-0058-2883 14

Comment of Tennessee Valley Authority, EPA-HQ-OAR-2012-0322-0617 33

Comment by Wisconsin Electric Power Company, EPA-HQ-OAR-2002-0058-3452 13

EPA, AIR TOXICS STRATEGY (1985) 6, 28, 29

EPA, GUIDANCE FOR THE IMPLEMENTATION OF THE GENERAL DUTY CLAUSE (May 2000) 23

Hearings on Clean Air Act Amendments of 1987 before the Subcomm. on Environmental Protection of the Senate Comm. on Environment and Public Works, 100th Cong., 1st Sess., pt. 2 ..... 6, 26–27

Hearings on Clean Air Act Amendments before the Subcomm. on Health and the Environment of the House Comm. on Energy and Commerce, 101st Cong., 1st Sess., pt. 3 8

H. Rep. No. 95-294 (1977) 26

H. Rep. No. 101-952 (1990) 3, 26

Motion, *ARIPPA v. EPA*, No. 16-1168 (D.C. Cir. Jan. 27, 2017) 12 n.5, 30 n.9

Opening Brief of Industry Pet., *U.S. Sugar Corp. v. EPA*, No. 11-1108 (D.C. Cir. Feb. 11, 2015) 16

Order, *Sierra Club v. EPA*, No. 02-1135 (D.C. Cir. July 30, 2009) 11

Pet. for Cert. in *Am. Chem. Council v. Sierra Club*, O.T. 2009, No. 495..... 11

S. Rep. No. 100-231 (1987)..... 3 n.1

Tr. of Oral Arg. in *Yates v. United States*, O.T. 2013, No. 745 34

PETITION FOR WRIT OF CERTIORARI

Accidents happen. They are as inevitable as they are unavoidable. Outlawing accidents, like outlawing the weather, serves no legitimate purpose. Yet, the District of Columbia Circuit Court of Appeals has painted EPA into that very corner where accidents have been made unlawful. The Clean Air Act does not require or support this absurd result.

Section 112 of the Act has separate programs for routine releases and accidental releases. Standards for routine releases are imposed under Section 112(d) and require owners and operators to take proven and achievable steps to reduce their emission rates. Accidental releases are prevented, detected, and mitigated through rigorous preparation and planning requirements separately imposed under Section 112(r). But the District of Columbia Circuit Court of Appeals missed this key distinction in a 2008 decision that wrongly concluded EPA must regulate accidental releases using the process that Congress designed for routine releases. Due to that erroneous decision, EPA issued Section 112(d) standards for boilers and process heaters that apply at all times without exception thereby outlawing unavoidable accidental releases. As a result, cities and businesses that own or operate boilers that malfunction for reasons outside of their control automatically violate federal law enforceable by the government and private citizen plaintiffs. The court of appeals upheld EPA's at-all-times standards even though inevitable and unavoidable accidents make compliance impossible.

Without relief, this significant error will infect other Section 112 standards imposing impossible compliance responsibility on virtually all cities and businesses

regulated under this program. Even now, thousands of sources are at risk of litigation brought by agencies or citizen plaintiffs in federal district courts across the country over unavoidable and accidental releases. That untenable result contradicts the Clean Air Act's carefully crafted provisions and regulatory scheme. The Court has an opportunity to step in before legal liabilities are imposed that cannot be easily erased by subsequent judicial or agency action. Petitioner respectfully requests that the Court grant this petition.

OPINIONS BELOW

The opinion of the D.C. Circuit is reported at 830 F.3d 579 and reproduced at App.1–167.

The final and reconsidered regulations imposed by the agency are published at 76 Fed. Reg. 15,608 (Mar. 21, 2011), 78 Fed. Reg. 7,138 (Jan. 31, 2013), 76 Fed. Reg. 15,554 (Mar. 21, 2011), and 78 Fed. Reg. 7,488 (Feb. 1, 2013).

JURISDICTION

The D.C. Circuit issued its opinion on July 29, 2016, and denied a timely petition for rehearing and rehearing *en banc* on December 23, 2016. This Court has jurisdiction under 28 U.S.C. §1254(1).

STATUTORY PROVISIONS INVOLVED

The pertinent statutory provisions—Section 112, Section 113, and Section 304 of the Clean Air Act—are reproduced in the appendix to this petition at App.180–301.

STATEMENT OF THE CASE

A. The Clean Air Act requires EPA to regulate routine emissions from stationary sources with "achievable" Section 112(d) emission standards.

The Clean Air Act establishes various regulatory programs to control emissions. 69 Stat. 322, as amended, 42 U.S.C. §§7401–7671q. Congress crafted one such program to address "Routine Emissions From Major Sources," H. Rep. No. 101-952, at 338 (1990), and "Routine Emissions From 'Area' Sources,'" *id.* at 340; 42 U.S.C. §7412(a)–(k). This routine emissions program covers over 180 "hazardous air pollutants" listed by Congress or added by EPA. §7412(b) (initial list of substances and criteria and process for EPA to add to the list).[1] With limited exceptions, *see* §7412(n), EPA must regulate sources at facilities that have the potential to emit more than 10 tons per year of a single listed substance or 25 tons per year of a combination of listed substances in the "major" source program. §7412(a)(1); §7412(c).

---

[1] The list is not limited to especially harmful substances, *see* S. Rep. No. 100-231, at 223–25 (1987) (detailing the ad hoc method Congress used to assemble the substance list), and EPA cannot remove substances from the list that pose no threat to human health if they might cause "any significant and widespread adverse effect . . . to wildlife, aquatic life, or other natural resources." §7412(b)(3)(C); §7412(a)(7). In stark contrast, the original Section 112 program only authorized national emissions standards for substances that EPA found could "result in an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness." 42 U.S.C. §7412(a)(1) (1988).

EPA can also regulate sources at facilities that emit less than these "major" source thresholds as "area" sources if they "present[] a threat of adverse effects to human health or the environment . . . warranting regulation under" Section 112. §7412(a)(2); §7412(c)(3).

For "major" sources, the statute instructs EPA to require realistic, proven steps to reduce emissions. Specifically, EPA is directed to promulgate emission standards that require a "degree of reduction in emissions" that EPA "determines is achievable" or that is "deemed achievable" because it has already been "achieved" by the "best performing" similar sources. §7412(d). For "area" sources, EPA can promulgate "standards or requirements" that "provide for the use of generally available control technologies or management practices." §7412(d)(5). When it is "not feasible" to "prescribe or enforce" an emission "control" standard, EPA may "promulgate a design, equipment, work practice, or operational standard." §7412(h).

The Clean Air Act provides that "no person may construct any new major source . . . unless" the Administrator or a State delegated with authority by EPA "determines that such source, if properly constructed . . . and operated, will comply" with applicable standards. §7412(i)(1).

The penalties for violating Section 112 standards are very substantial. Sources that violate Section 112 standards are subject to administrative compliance and penalty orders, §7413(a)(3); §7413(a)(5), §7413(d). Also, civil actions for injunctive relief and civil penalties can be filed by either the government or by private plaintiffs in "citizen suits." §7413(b); §7604. Sources that knowingly violate Section 112 emission standards can also be subject to criminal penalties

including fines and up to 5 years of imprisonment. §7413(c)(1).

Owners and operators of large stationary sources must include the "emission limitations and standards" imposed under Section 112 as requirements in their operating permits and they must "promptly report any deviations from permit requirements to the permitting authority." §7661b(b)(2). Potential private plaintiffs can easily obtain and review these reports because the Clean Air Act provides that they must be "ma[d]e available to the public." §7661a(b)(8).

Owners and operators that fail to comply with the emission standards imposed under Section 112(d) face the prospect of *pro se* cases filed by private plaintiffs and also cases filed by attorneys who take them on a contingency fee basis by relying on a provision that authorizes cost shifting in citizen enforcement suits for successful litigants. §7604(d).

B. The Clean Air Act requires EPA to regulate unanticipated emissions through the Section 112(r) accidental release program.

While Section 112(d) addresses routine emissions, Section 112(r) addresses "unanticipated emission" events. §7412(r)(2)(A). EPA has long realized that unanticipated emission events are very unlike routine emissions and that they "stem from different causes and therefore demand separate solutions." EPA, AIR TOXICS STRATEGY at 6 (1985). Because Congress agreed that routine and accidental release regulations are best "kept separate" to avoid "mixing apples and oranges," Section 112 has "separate lists, separate regulatory authorities and distinctions, and there are different elements in the programs." *Hearings on Clean Air Act Amendments of 1987 before the Subcomm. on Environmental Protection of the Senate Comm. on Environment and Public Works*, 100th Cong., 1st Sess., pt. 2, p. 21 (statement of Sen. Durenberger).

Section 112(r) defines an "accidental release" as any "unanticipated emission . . . into the ambient air from a stationary source" of any substance that is "extremely hazardous" or that EPA has found could "cause death, injury, or serious adverse effects to human health or the environment" "in the case of an accidental release." *See* §7412(r)(2)(A); §7412(r)(3). Congress did not outlaw these accidental releases. Instead, Congress carefully crafted the provisions of Section 112(r) to "prevent" accidental releases and to "minimize the consequences of any such release" and provided EPA ample tools tailored for this purpose. §7412(r)(1).

First, the Section 112(r) program authorizes EPA to "promulgate release prevention, detection, and correction requirements which may include monitoring, record-keeping, reporting, training, vapor recovery, secondary containment, and other design, equipment, work practice, and operational requirements." §7412(r)(7). Congress directed EPA to promptly use this provision to "promulgate reasonable regulations and appropriate guidance to provide, to the greatest extent practicable, for the prevention and detection of accidental releases . . . and for response to such releases." *Id.*

Second, the Section 112(r) program directs EPA to require owners and operators of certain sources to "prepare and implement" a detailed site-specific "risk management plan" that is subject to EPA review and revision. §7412(r)(7)(B)(ii)–(iii). These site-specific plans are required for "stationary sources at which a regulated substance is present in more than" an "amount" sufficient to cause serious adverse effects "as a result of an accidental release." *Id*.

Third, Congress authorized EPA to respond to any "imminent and substantial endangerment to the human health or welfare or the environment because of an actual or threatened accidental release" by requesting a court order providing "such relief as may be necessary to abate such danger or threat" and appropriate in light of "the public interest and the equities of the case." §7412(r)(9).

Fourth, Congress imposed a "general duty" on the "owners and operators of stationary sources producing, processing, handling or storing" any of the substances covered by Section 112(r) "to identify hazards which may result from such releases using appropriate hazard assessment techniques, to design

and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of accidental releases which do occur." §7412(r)(1).

Finally, as an added backstop, Congress also criminalized dangerous negligent releases of the substances listed under Section 112(b) for regulation under the routine emissions program. §7413(c)(4). This provision was proposed by the White House, and EPA's Administrator explained to Congress that its purpose was to "raise the standard of caution and care on the part of the companies, make employees much more concerned, ensure that there is more training and preparation of people who handle these very dangerous materials, and . . . reduce the likelihood of human error." *Hearings on Clean Air Act Amendments before the Subcomm. on Health and the Environment of the House Comm. on Energy and Commerce*, 101st Cong., 1st Sess., pt. 3, 653.

Section 112(r)'s generally applicable regulations and site-specific risk management plan requirements are enforceable in the same manner as the emission control standards for routine emissions issued under Section 112(d), and this includes private plaintiff citizen suits. §7412(r)(7)(E). But Congress carefully gave EPA—and EPA alone—additional authority to encourage prevention and mitigation under the other accidental release provisions. Only EPA has general authority to request abatement orders. §7412(r)(9). The general duty to prevent and minimize accidental releases is enforceable only by EPA, not by private plaintiffs filing citizen suits. *See* §7412(r)(1). Likewise, the obligation to avoid dangerous negligent releases

of Section 112(b) substances is enforceable only by the government in criminal cases. *See* §7413(c)(4).[2] These distinctions sensibly give the government more latitude in addressing accidental releases than private plaintiffs, who lack the government's discretion and expertise.

Critically, Congress's comprehensive Section 112(r) program minimizes accidents and their effect. It does not prohibit or outlaw them. Nor did Congress give EPA authority anywhere else in Section 112 to issue a blanket ban on accidental releases, much less one enforceable by private plaintiffs. Congress chose a more reasonable approach for accidental releases because malfunctions are "an inescapable aspect of industrial life." *Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375, 398 (D.C. Cir. 1973). Given that there is an ever-present "statistical probability of infrequent, unavoidable mechanical failures in process or air pollution control equipment, which, despite the best maintenance and control practices, cannot be controlled immediately," 37 Fed. Reg. 17,214 (Aug. 25, 1972),[3] Congress crafted a reasonable, tailored program that achieves meaningful environmental protection without subjecting owners and operators to automatic violations or an unavoidable threat of private citizen suits when malfunctions occur.

---

[2] Section 113(c)(4) cannot be enforced by private plaintiffs in citizen suits because it is not "an emission standard or limitation" or "an order issued by the Administrator or a State." *See* §7604(a)(1).

[3] S*ee* Comment by Am. Wood Council at 214, EPA-HQ-OAR-2002-0058-3212 ("Electrostatic fields trip, power failures do occur, fabric filters fail, scrubber pumps fail even at best performers and despite the best efforts of companies . . . .").

C. The D.C. Circuit Court of Appeals required EPA to regulate unanticipated emissions using Section 112(d) in *Sierra Club v. EPA*.

For many years, EPA's regulations implementing Section 112's routine emissions program provided a general exemption for "periods of startup, shutdown, and malfunction" from emission control standards issued under Section 112(d). 59 Fed. Reg. 12,408, 12,440 (Mar. 16, 1994) (issuing 40 C.F.R. §63.6(f)(1) & (h)(1)). Exempting periods of malfunction lawfully deferred regulation of those unanticipated emission events to Section 112(r)'s accidental release program, and this covered "any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner." 40 C.F.R. §63.2. But EPA acknowledged that it went further by including periods of startup and shutdown that "are numerous and routine." 68 Fed. Reg. 32,586, 32,592 (May 30, 2003). In response to a comment that questioned the "legal basis" for the general exemption and argued that EPA could only exempt "unavoidable" emissions, EPA disagreed and asserted that the Agency has "discretion to make reasonable distinctions concerning those particular activities to which the emission limitations in a [Section 112(d)] standard apply." *Id.* at 32,590.

Sierra Club and a handful of other environmental organizations seized on that single sentence in the Federal Register as an opportunity to argue in a case before the D.C. Circuit Court of Appeals that "[t]he text of the Clean Air Act makes clear that Congress conferred no discretion on EPA with regard to when emission standards must limit emissions." Brief of

Sierra Club, et al. at 44, *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008). They claimed that the phrase "on a continuous basis" in the Act's general definition of "emission standard" unambiguously requires EPA to regulate emissions "at all times" under Section 112(d), including unavoidable and unanticipated emission events that are caused by malfunctions and reasonable mistakes. *Id.* at 44, 56.

Neither EPA nor any other party in the case disputed this assertion or discussed Congress's carefully tailored program for accidental releases under Section 112(r). In the absence of any objection and without the aid of briefing on the critical statutory context, the D.C. Circuit Court of Appeals erroneously held Congress unambiguously required either a Section 112(d) or Section 112(h) standard must apply at all times. *Sierra Club v. EPA*, 551 F.3d 1019, 1028 (D.C. Cir. 2008). The court of appeals narrowly declined to rehear the case *en banc* in a 5 to 3 vote. Order, *Sierra Club v. EPA*, No. 02-1135 (D.C. Cir. July 30, 2009).

A petition for a writ of certiorari was filed, but it only asked the Court to decide the purely procedural question of whether the environmental groups should have been required to submit a rulemaking petition to EPA before obtaining judicial review of the long-extant general exemption. Pet. for Cert. in *Am. Chem. Council v. Sierra Club*, O.T. 2009, No. 495, at i.[4] The Court denied the petition on March 8, 2010.

---

[4] Justice Kagan represented the government as counsel of record in opposing the petition.

D. EPA promulgated Section 112(d) standards that outlaw accidental releases and require the impossible due to the *Sierra Club* decision.

The *Sierra Club* decision led EPA to promulgate a flagrantly unlawful regulation that applies to over two hundred thousand sources and nearly one hundred thousand separate facilities.

This regulation—which is most often referred to as "Boiler MACT" and is codified at 40 C.F.R. Part 63, Subparts DDDDD and JJJJJJ—imposes Section 112 emission standards for boilers and process heaters that use combustion to generate electricity or heat in industrial, commercial, and institutional settings. App.7–8. Due to their small size, some municipal power plants are subject to Boiler MACT.[5]

For "major" sources, EPA began by collecting data from tests of boilers and process heaters across the country that reflected the levels of emissions they achieve during periods of routine operation. App.19–21. Then, EPA identified the lowest routine emission levels in the test data and used statistical analysis to predict the routine emission levels that the nation's

---

[5] Large utility-scale boilers used to generate electricity are separately regulated by the "Utility MACT" standards that were addressed by the Court in *Michigan v. EPA*, 135 S. Ct. 2699 (2015). A pending challenge to those standards raises the same issue presented by this petition, and the government has requested that the court of appeals hold that case in abeyance pending the Court's disposition of this petition because the "resolution of th[is] petition could inform the parties' consideration of the malfunction issue" in the case challenging the Utility MACT standards. Motion, *ARIPPA v. EPA*, No. 16-1168 (D.C. Cir. Jan. 27, 2017).

best performing sources achieved in practice. *Id*. For most sources, EPA then promulgated numeric emission standards set at the levels that the best performing sources had achieved during periods of normal operation. App.19–21. EPA recognized that even though starting up and shutting down are "predictable and routine aspects of a source's operations" the emission levels during these periods do not align with the levels achieved during normal operations. 76 Fed. Reg. at 15,613. So EPA issued non-numeric work practice standards that apply to these periods of routine operation, in accordance with Section 112(h). *Id.* at 15,613, 15,618; App.22–23.

A commenter asked EPA to create a *de minimis* "exemption" for malfunctions because the "majority of malfunctions that result in excess emissions are likely to be minor in nature and result in only minimal excess emissions." Comment by Wisconsin Electric Power Company at 4, EPA-HQ-OAR-2002-0058-3452. But EPA found the D.C. Circuit's decision in *Sierra Club v. EPA* precluded an exemption for malfunctions because it required EPA to "establish[] standards . . . that apply at all times." 76 Fed. Reg. at 15,613. Accordingly, EPA used Section 112's routine emissions program to regulate accidental events that are anything but routine.

Unsurprisingly, the owners and operators and the environmental groups had very different suggestions for resolving the dilemma that confronted EPA. The environmental groups asked EPA to make the numeric standards applicable "at all times" even though they are set at levels achieved during periods of normal operations. Comment by Am. Lung Ass'n at 5–6, EPA-HQ-OAR-2002-0058-3679. The premise

of their proposal was that each and every deviation from the numeric standards—no matter how small, harmless, or unavoidable—should be a violation of the Clean Air Act. *Id.*

Owners and operators countered that outlawing unavoidable malfunctions violates Section 112(d)'s express limit that EPA can only require what the Administrator "determines is achievable" or is "deemed achievable" because it has already been "achieved" by the "best performing" similar sources. §7412(d). They suggested that EPA could harmonize this statutory requirement and *Sierra Club* without subjecting owners and operators to unavoidable liability by promulgating work practice standards for periods of malfunction under Section 112(h). Comment by Council of Industrial Boiler Owners at 109–10, EPA-HQ-OAR-2002-0058-2702.1; Comment by DuPont at 7, EPA-HQ-OAR-2002-0058-2793; Comment by Morton Salt at 29, EPA-HQ-OAR-2002-0058-2883.

EPA ultimately adopted the approach advocated by the environmental groups, imposing at-all-times standards that require impossible perfect performance. However, the Agency tried to limit the collateral damage that decision would inflict by also adopting an "affirmative defense" rule that barred courts from imposing civil penalties if owners and operators proved that violations of the standards were caused by malfunctions. App.23. Environmental groups unhappy with EPA's attempt to limit their ability to seek civil penalties successfully challenged an identical affirmative defense provision in EPA's Section 112 standards for cement kilns, and EPA then excised the affirmative defense provision from Boiler MACT. App.23–24; *Natural Res. Def. Council v. EPA*, 749 F.3d 1055, 1062–64 (D.C. Cir. 2014) (*NRDC v. EPA*).

All that was left was an EPA promise to exercise its prosecutorial discretion in enforcing standards it knows require impossible perfect performance. 76 Fed. Reg. at 15,613. EPA did not limit, address, or even discuss the many serious ramifications of its impossible standards, including the citizen suits it will unleash on owners and operators.

E. The D.C. Circuit Court of Appeals upheld the impossible standards based on *Sierra Club*.

Among other issues, petitioners below challenged the Boiler MACT standards because they required "facilities to meet . . . limits that were developed using data from normal operations . . . during periods of malfunction" such that the standards "are not achievable . . . nor reflective of what is achieved in practice by the best-performing sources." Opening Brief of Industry Pet. at 34, *U.S. Sugar Corp. v. EPA*, No. 11-1108 (D.C. Cir. Feb. 11, 2015).

EPA had no real answer to the challenges that requiring uninterrupted perfect performance was not achievable and had not been found by EPA to have been achieved in practice. The Agency noted that its "authority to address malfunctions" was "limited by . . . *Sierra Club v. EPA* . . . striking down exemptions for malfunctions," Brief for Respondent at 40, *U.S. Sugar Corp. v. EPA*, No. 11-1108 (D.C. Cir. Feb. 11, 2015). Thus, it attempted to defend the impossible Boiler MACT standards "on the basis of . . . the impracticability of accounting for events that are necessarily unpredictable" in setting Section 112(d) emission standards. App.37. EPA explained that it was "difficult to apply the concept of a best performing source to sources that are malfunctioning" and contended "it would be wholly impracticable for EPA to factor unforeseeable, random malfunction incidents into emission standards" since "[v]irtually no malfunction is foreseeable in terms of its nature, timing or effect on emission levels and no operator knows when or if a malfunction could recur." Brief for Respondent at 38,

41, *U.S. Sugar Corp. v. EPA*, No. 11-1108 (D.C. Cir. Feb. 11, 2015).

The three-judge panel in this case was bound by the *Sierra Club* decision, and they struggled mightily under its framework.

The panel agreed that *Sierra Club* created an "intractable problem" because it left the Agency with "no option to exclude . . . unpredictable periods" from Section 112(d) standards by holding that "EPA lacked discretion to exempt certain periods from compliance, regardless of their unpredictability." App.38–41. The panel further acknowledged that "EPA's chosen approach" in response to the "obvious dilemma" resulting from this holding "seem[s] counterintuitive." App.38. But the panel concluded that because the earlier decision had "stymied" EPA from taking the "reasonable" step of "exempt[ing] periods of malfunction entirely from the application of the standards," making compliance impossible by outlawing accidental releases was consistent with a "permissible reading of the . . . statute under *Chevron*," even though the standards must be "achievable" or found to have been "achieved" in practice by best performing sources, and "[b]oth sides agree[d] that malfunctions are inevitable in the operation of area and major boilers." App.38–40.[6]

---

[6] The panel also asserted that "[t]he 'best controlled similar source' . . . is unlikely to be a malfunctioning source." App.40. This proposition is incorrect and contradicts the court of appeals finding that EPA has admitted that malfunctions are "inevitable." App.38. Importantly, EPA never made any finding in the record that there was any boiler or process heater that had never malfunctioned. *Cf. SEC v. Chenery Corp.*, 318 U.S. 80, 87 (1943).

The panel then upheld EPA's refusal to address the dilemma using work practice standards because "the Petitioners ha[d] not demonstrated and the EPA does not concede that setting work-practice . . . standards would even be feasible for periods of malfunction" because EPA "would have to conceive of a standard that could apply equally to the wide range of possible boiler malfunctions, ranging from an explosion to minor mechanical defects" and "[a]ny possible standard is likely to be hopelessly generic to govern such a wide array of circumstances." App.42.

The panel recognized that its decision upholding impossible standards will generate litigation because "private citizens are . . . empowered to enforce emission standards by filing suit in district court," and the "[a]ssurances that the EPA will use its prosecutorial discretion to account for malfunctions" will "mean little if private citizens . . . seek strict enforcement of those same standards." App.42.

In such cases, the panel suggested defendants "can argue that penalties should not be assessed because of an unavoidable malfunction, and they can support that argument with other relevant facts, 'such as the defendant's "full compliance history and good faith efforts to comply."'" App.43 (quoting *NRDC v. EPA*, 749 F.3d at 1063 (quoting §7413(e)(1))). The panel noted "EPA can . . . provide supporting argumentation as intervenor or amicus," App.43, and urged that the "[c]ourts should not hesitate to exercise their judicial authority to craft appropriate civil remedies in the case of emissions exceedances caused by unavoidable malfunctions." App.43. But such accommodations do nothing to shield owners and operators from the cost of litigation. Also, the panel did not address how this would work if injunctive relief is sought in civil suits

or if criminal enforcement actions are brought. Owners and operators fear that the courts' ability to provide relief in such cases will be limited because Congress has provided that Section 112(d) emission standards "shall not be subject to judicial review in civil or criminal proceedings for enforcement." §7607(b)(2).

The panel also did not confront the troubling result that its decision forces regulated entities to rely entirely on the unfettered discretion of EPA, citizen plaintiffs, and district courts without even the minimum "measure of predictability" required by the Constitution to "comport[] with due process." *Army Corps of Eng'rs v. Hawkes, Co.*, 136 S. Ct. 1807, 1816–17 (2016) (Kennedy, J., concurring).

Meanwhile, the panel agreed with a challenge to the data EPA used to set some of the standards, and initially vacated some of the individual Boiler MACT emission standards. App.89–92. But the panel later granted a petition for panel rehearing requesting a remand of the standards to EPA for adjustment in accordance with the decision without vacating them. App.169–171.

F. The D.C. Circuit Court of Appeals refused to reconsider *Sierra Club*.

American Municipal Power, Inc. petitioned for rehearing *en banc*, and specifically asked the D.C. Circuit Court of Appeals to reconsider *Sierra Club* in light of Section 112(r) and this Court's decision in *Utility Air Regulatory Group v. EPA*, 134 S. Ct. 2427 (2014). The court of appeals denied this *en banc* rehearing petition without requesting a response from the government and without a vote. App.173.

REASONS FOR GRANTING THE PETITION

I. The court of appeals erroneously affirmed the impossible Section 112(d) emission standards and wrongly adhered to *Sierra Club*.

A. Section 112(d) emission standards cannot require impossible perfect performance.

Unanticipated emissions that exceed routine levels "due to plant or emission device malfunction" are "an inescapable aspect of industrial life." *Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375, 398 (D.C. Cir. 1973). That is because there is an ever-present "statistical probability of infrequent, unavoidable mechanical failures in process or air pollution control equipment, which, despite the best maintenance and control practices, cannot be controlled immediately." 37 Fed. Reg. 17,214 (Aug. 25, 1972). Both EPA and the court below have recognized that malfunctions are "inevitable." App.38. Accordingly, EPA's Boiler MACT standards require the impossible by imposing standards set at routine levels that apply at all times without any exception for the unavoidable and accidental releases that will certainly occur.

Congress expressly prohibited Section 112 standards that are impossible for sources to comply with. First, EPA can only promulgate emission standards that require the "degree of reduction in emissions" that the Administrator "*determines* is achievable" or that is "*deemed* achievable" because it has already been "achieved" by the "best performing" similar sources. §7412(d) (emphasis added). Here, EPA's standards are not "achievable" and cannot be "deemed achievable" because they have not been and cannot be achieved

during malfunctions that are "inevitable" even for properly designed and operated equipment. App.38; *see also Portland Cement Ass'n*, 486 F.2d at 398.[7]

Second, Congress expressly limited EPA's authority to promulgate a "prohibition on . . . emissions" by only authorizing that extreme result where it is "achievable." §7412(d)(2). Yet EPA has issued a "prohibition on . . . emissions" from malfunctions that exceed routine levels even though EPA has never found it "achievable" for sources to prevent these unanticipated emission events.

The broader programmatic harms and conflicts produced by banning inevitable malfunctions further confirms that EPA's rule violates the Clean Air Act. Before constructing new major sources, owners and operators must demonstrate they "will comply" with the applicable Section 112 standards if they are "properly constructed . . . and operated." §7412(i)(1). This requirement presumes that they will be able to do so because EPA's standards are supposed to be achievable rather than impossible to comply with.

---

[7] The panel's assertion that "[t]he 'best controlled similar source' . . . is unlikely to be a malfunctioning source," App.40, contradicts its finding that EPA admitted malfunctions are "inevitable." App.38. Furthermore, EPA never made a finding in the record that there was a boiler or process heater that had never malfunctioned. It is a "foundational principle of administrative law that a court may uphold agency action only on the grounds that the agency invoked when it took the action." *Michigan v. EPA*, 135 S. Ct. 2699, 2710 (2015); *SEC v. Chenery Corp.*, 318 U.S. 80, 87 (1943) ("The grounds upon which" agency action "must be judged are those upon which the record discloses that its action was based.").

The impossible standards generate statutory tension with Section 112(r) that further confirms EPA went well beyond what Congress intended in drafting Section 112. Congress decided to broadly regulate accidental releases in Section 112(r) *without* making them violations of the Clean Air Act. Yet EPA's rule here does exactly that by transforming accidental releases that lead to emissions above routine levels into violations of the Act.

Transforming unanticipated emissions that will inevitably result from malfunctions and reasonable mistakes into automatic violations of the Act enforceable by private plaintiffs also undermines the core purpose of Section 112(r)—to facilitate prevention and detection of accidents. *See* §7412(r)(7)(B) (EPA must "provide, to the greatest extent practicable, for the prevention and detection of accidental releases"). Imposing privately enforceable liability for accidents will deter owners and operators from sharing their accident reports, impeding their ability to learn from the experience of others and prevent similar accidents. *Cf.* EPA, GUIDANCE FOR THE IMPLEMENTATION OF THE GENERAL DUTY CLAUSE 4 (May 2000) (noting a cause of an individual accidental release "may have broad applicability to industry" so there is a "potential to develop recommendations and lessons learned to prevent future accidents"). Imposing this liability also inflicts a counterproductive punishment for detecting accidents when they occur because violations must be included in publicly accessible Title V reports that private plaintiffs can then contend are admissions of liability in citizen suits.

Likewise, EPA's rule will produce litigation that puts federal district courts in the untenable position of superintending operation and maintenance practices

without the benefit of the Agency's assistance and expertise. Congress deliberately sought to avoid this by carefully circumscribing private enforcement rights. §7412(r)(1) (providing the citizen suit provision "shall not be available" to enforce the "general duty"); §7413(c)(4) (imposing the duty to avoid dangerous negligent releases of listed Section 112(b) substances that can only be enforced by the government in criminal cases and not by private plaintiffs). Yet the impossible "at all times" standards will allow private plaintiffs to force district courts to consider requests for injunctive relief addressing how sources are operated and maintained without EPA's technical expertise and guidance.

Thus, EPA's rule contradicts the direct statutory language requiring "achievable" emission standards, is fundamentally inconsistent with the statutory design directing separate regulation of routine and accidental releases, and impairs the purpose and policy choices underlying Congress' chosen vehicle for addressing unavoidable and accidental releases.

B. Based on the erroneous *Sierra Club* decision, the court of appeals has wrongly constrained EPA's authority.

The decision below upholding EPA's unachievable standards is founded on the D.C. Circuit Court's earlier decision in *Sierra Club v. EPA* which required EPA to subject sources to either Section 112(d) emission standards or Section 112(h) work practice standards at all times without exception. Specifically, the panel below found that this decision "stymied" EPA's ability to implement a solution that comported with the statutory "achievability" mandate. App.39. That decision, which the court of appeals refused to reconsider *en banc*, must be corrected to eliminate EPA's "obvious dilemma" so the Agency can effectuate Section 112 as Congress intended. App.39.

The *Sierra Club v. EPA* decision barred EPA from exempting unavoidable and accidental releases from Section 112(d) emission standards even though they are already addressed by Section 112(r)'s accidental release program and the benefits of also regulating them under Section 112(d) are *de minimis*. To reach this sweeping result, the court of appeals reasoned that Section 112(d) calls for "emission standards," and the Act-wide definition of "emission standard" is "a requirement . . . which limits . . . emissions of air pollutants on a continuous basis." §7412(d); §7602(k); *Sierra Club v. EPA*, 551 F.3d at 1026–28. The court then read "on a continuous basis" to unambiguously mean at all times without any interruptions or any exceptions. *Id.*

The plain text of the Clean Air Act refutes *Sierra Club*'s "at all times" interpretation. The core mandate of Section 112(d) is that EPA's "emission standards"

must be "achievable" or "deemed achievable" because they were "achieved" by some sources, and the standards can only contain a "prohibition on . . . emissions" if it is "achievable." §7412(d). While the Act-wide definition of "emissions standards" informs this prime directive, all of the text must be read to work together. Thus, Section 112(d) standards can require sources to limit emissions "on a continuous basis" *but only to the extent that is achievable*—not at all times without exception even though that makes the emission standards impossible to comply with.

Properly integrating the statutory text in this way allows the language to accomplish exactly what Congress intended because it ensures the emission standards are "achievable" while still preventing EPA from requiring only "intermittent," "temporary," or "periodic" controls. H. Rep. No. 95-294, at 92 (1977). It also allows EPA to limit Section 112(d) standards to what "may sensibly be encompassed within th[at] particular regulatory program" rather than forcing it to address "every conceivable" aspect of a source's emissions. *Utility Air Regulatory Group v. EPA*, 134 S. Ct. 2427, 2441 (2014) (*UARG*).

Section 112's history, structure, and design confirm that EPA can limit Section 112(d) emission standards to "routine aspects of a source's operations" by excluding unavoidable and accidental releases. 76 Fed. Reg. at 15,613. Section 112(d) was repeatedly described in the committee reports, floor debates, and hearings as the program that addresses "Routine Emissions." *See, e.g.*, H. Rep. No. 101-952 at 338, 340 (1990) (committee report headings). Indeed, as the key architect of Section 112 explained, it contains "separate lists, separate regulatory authorities and distinctions" and includes "different elements in the

programs" for "routine releases" and "accidental releases." *Hearings on Clean Air Act Amendments of 1987 before the Subcomm. on Environmental Protection of the Senate Comm. on Environment and Public Works*, 100th Cong., 1st Sess., pt. 2, p. 21 (statement of Sen. Durenberger). Congress plainly intended EPA to separately regulate, rather than conflate, routine emission levels and accidental releases.

This intent is further reflected in a provision directing traffic between the routine and accidental emissions programs in Section 112. Congress provided that substances cannot be added to the Section 112(d) routine emissions program based on concerns over potential health and welfare effects that result from "releases subject to regulation under subsection (r) of this section as a result of emissions to the air." §7412(b)(2). The "releases" subject to Section 112(r) are "unanticipated emission" events. §7412(r)(2)(A). Since Congress expressly provided that EPA cannot consider accidental releases when adding substances to the Section 112(d) program, Congress obviously did not intend—let alone require—that EPA would apply Section 112(d) to accidental releases.

Moreover, even setting aside Section 112's text, context, and history, *Sierra Club*'s acontextual misreading of the phrase "on a continuous basis" ignores the "venerable" doctrine of *de minimis non curat lex* that "is part of the established background of legal principles against which all enactments are adopted, and which all enactments . . . are deemed to accept." *Wisconsin Dept. of Revenue v. William Wrigley, Jr., Co.*, 505 U.S. 214, 231 (1992).

As the Court held in *Utility Air Regulatory Group*, that doctrine applies to EPA's administration of the

Clean Air Act. *UARG*, 134 S. Ct. at 2449 ("EPA may establish an appropriate *de minimis* threshold below which BACT is not required").[8] In support of this holding, the Court approvingly cited Judge Leventhal's opinion in *Alabama Power* explaining that agencies have "[t]he ability . . . to exempt de minimis situations" because it is a "tool" for "implementing . . . legislative design." *Alabama Power Co. v. Costle*, 636 F.2d 323, 360–361 (D.C. Cir. 1979). And Judge Leventhal observed that this authority extends to situations where "the literal terms of a statute . . . mandate pointless expenditures of effort" and "the burdens of regulation yield a gain of trivial or no value." *Id.*

Exempting unavoidable and accidental releases from Section 112(d) emission standards falls squarely within EPA's discretion to administer this statute consistent with the Act's purpose and design without imposing pointless liabilities and burdens on owners and operators. EPA has concluded they usually do not pose any "health or environmental hazard" because of a lack of the "coincidence of potency, volume, and exposure sufficient to overwhelm physical and natural defenses." EPA, AIR TOXICS STRATEGY at 6 (1985) (noting "these factors do not coincide very often in the United States"). And Congress's Section 112 programs,

---

[8] *See also Ohio v. EPA*, 997 F.2d 1520, 1534–35 (D.C. Cir. 1993) (*de minimis* exception for toxic waste residue to CERCLA requirement to review remediated sites); *Hughey v. JMS Dev. Corp.*, 78 F.3d 1523, 1529–30 (11th Cir. 1996) (*de minimis* exception to Clean Water Act "zero discharge" requirement); *Volkswagenwerk, A.G. v. FMC*, 390 U.S. 261, 276–77 (1968) (*de minimis* exception for "some types or classes of agreements coming within the literal provisions" of a statute's formal filing requirement).

State tort laws, and private self-interest already limit the frequency and consequences of potentially harmful unanticipated emission events "to the greatest extent practicable," as Congress directed. §7412(r)(7)(B)(i). Section 112(r) requires EPA to comprehensively regulate accidental releases, and Section 113(c)(4) criminalizes any negligent dangerous release of any substance covered by the Section 112(d) standards. §7412(r); §7413(c)(4). Likewise, the "[f]ear of major liability suit" under State tort laws is a "powerful incentive to promote safe operations," and owners and operators desire to minimize equipment malfunctions and human errors because they "lead to process down-time" which results in "lost production and profit." EPA, AIR TOXICS STRATEGY at 26 (July 1985).

This is a classic case for applying the *de minimis* doctrine. With the ample set of Federal, State, and private forces already at work minimizing harmful accidental releases, any additional effect of turning them into privately enforceable violations will not materially improve public health and welfare and the benefits of doing so are *de minimis* as it will "yield a gain of trivial or no value." *Alabama Power Co. v. Costle*, 636 F.2d at 361.

II. EPA's unachievable standards have far-reaching implications and threaten to unleash a scourge of private citizen suits.

EPA's impossible Boiler MACT standards and the D.C. Circuit's continued adherence to the erroneous *Sierra Club* decision threaten many deeply troubling consequences that strongly favor the Court's review.

The Boiler MACT standards themselves impact over two hundred thousand sources at nearly one hundred thousand separate facilities in numerous sectors across the American economy, including manufacturing plants, paper mills, steel foundries, refineries, chemical plants, cement plants, mining operations, agricultural processors, lumber mills, tanneries, print shops, furniture makers, automotive assembly plants, research laboratories, airports, warehouses, breweries, military bases, hospitals, nursing homes, schools, prisons, courthouses, and municipal power plants. *See* App.7–8; 76 Fed. Reg. at 15,557. The standards for many of these sources are impossible to comply with because they require the affected sources to meet, at all times and without exception, limitations that the best equipment and operation can achieve only during routine conditions. Likewise, EPA's Utility MACT standards impose the same problem on the nation's fleet of utility-scale power plants. Those standards are subject to pending litigation on this same issue before the D.C. Circuit Court of Appeals, a proceeding which will be governed by the resolution of this case.[9]

---

[9] *See* Motion, *ARIPPA v. EPA*, No. 16-1168 (D.C. Cir. Jan. 27, 2017) (motion by the government requesting that the

The D.C. Circuit's adherence to *Sierra Club* also threatens to subject other sources to Clean Air Act standards that would make compliance impossible. Environmental groups have filed lawsuits to force EPA to revise Section 112 standards for many additional sectors. S*ee Sierra Club v. McCarthy*, No. 15-1165 (N.D.Cal.); *Cal. Cmtys. Against Air Toxics v. Pruitt*, No. 15-512 (D.D.C); *Blue Ridge Envtl. Def. League v. Pruitt*, No. 16-364 (D.D.C.); *Cmty. In-Power and Dev. Ass'n, Inc. v. Pruitt*, No. 16-1074 (D.D.C); 80 Fed. Reg. 50,386 (Aug. 19, 2015); 80 Fed. Reg. 56,700 (Sept. 18, 2015). As part of the ensuing rulemakings, these groups are relying on *Sierra Club* to argue EPA must remove malfunction exemptions from the individual standards that predated that decision so they apply at all times, threatening to replicate the problem presented here time and again for each source category.

Sierra Club's erroneous interpretation of the Act-wide definition of "emission standard" has possible implications for other important Clean Air Act programs as well. That includes the National Ambient Air Quality Standards Program under which States have subjected stationary sources to emission standards as part of their implementation plans for decades. Indeed, there is pending litigation over EPA's efforts, at the urging of environmental groups citing *Sierra Club*, to force States to remove exemptions for malfunctions from plans implementing that program. *Walter Coke, Inc. v. EPA*, No. 15-1166 (D.C. Cir.).

---

court of appeals hold that case in abeyance pending disposition of this petition).

Impossible standards imposed under Section 112 and other Clean Air Act programs will spur private plaintiffs to file citizen suits in federal district courts nationwide, *see* §7604, resulting in a significant expansion of the right to sue that favors the Court's review. *Cf. Valley Forge Christian Coll. v. Ams. United for Sep. of Church & State, Inc.*, 454 U.S. 464, 470 (1982) (certiorari granted to review "broad and novel" expansion of right to sue in federal court). For their part, environmental groups have vowed that they will exercise this right by filing citizen suits against sources "that violate their emission standards during periods of equipment malfunction." Brief for Pet., Decl. of Jane Williams at 2 (305), *NRDC v. EPA*, 749 F.3d 1055 (D.C. Cir. 2014).

Moreover, larger sources subject to the Title V program are required to submit publicly accessible reports. §7661a(b)(8). Those reports document their unavoidable and accidental releases and private plaintiffs and their lawyers may use them as concessions of liability. §7661b(b)(2). These public filings will likely be an irresistible magnet for fee-seeking lawyers because the Clean Air Act allows for cost-shifting in favor of parties that succeed on the merits. §7604(d). Owners and operators justifiably fear that the ease of trolling Title V reports for admissions of violations of impossible standards will breed a new form of "green mail" letters demanding payment to avoid litigation.

Litigation over violations of impossible standards will be complex, costly, and will draw substantial resources from the judiciary and regulated entities alike. Each case will involve litigating an appropriate remedy, often requiring discovery and the resolution of triable factual issues concerning "the defendant's

'full compliance history and good faith efforts to comply.'" App.43 (quoting *NRDC v. EPA*, 749 F.3d at 1063 (quoting §7413(e)(1))). Private plaintiffs can seek orders imposing substantial civil penalties. §7604(a). And even if courts decline to impose penalties for unavoidable and accidental releases, as the court of appeals has suggested, App.43, they will also have to consider requests for injunctive relief to enforce the impossible standards, an unenviable task that would be particularly difficult without the executive branch as a party.

The risk of litigation and green mail demands for municipal power plants, schools, and other affected public institutions that is created by the impossible standards is a particularly important consideration that favors the Court's review. The expenses they are forced to pay displace other "governmental priorities" and can require "increases in local property taxes and cuts in essential services." 2 U.S.C. §1501(2); 2 U.S.C. §1513(a)(3).

As the Tennessee Valley Authority explained in comments objecting to the impossible Utility MACT standards, the "continued operation" of sources when equipment malfunctions also "raises the specter of criminal enforcement" which "could be of sufficient concern in specific situations to force utilities to decide whether to terminate generation activities with potential disruptions in service (e.g., blackouts) or to accept the risk of criminal enforcement and maintain electric service to the public." Comment of Tennessee Valley Authority at 8, EPA-HQ-OAR-2012-0322-0617; *see* §7413(c)(1) ("[a]ny person who knowingly violates any . . . requirement or prohibition of . . . section 7412" commits a criminal offense punishable by "fine . . . or by imprisonment not to exceed 5 years, or both").

While EPA may exercise its discretion in enforcing impossible standards, that is no guarantee federal prosecutors and future Administrations will do so. As members of the Court have observed, prosecutorial discretion is no longer as reliable as it once was. *See* Tr. of Oral Arg. in *Yates v. United States*, O.T. 2013, No. 7451 (Justice Kennedy observing recent prosecutions suggest "we should just not use the concept or refer to the concept at all anymore"); *accord Natural Res. Def. Council v. EPA*, 859 F.2d 156, 206 (D.C. Cir. 1988).

Environmental groups may also try and use the impossible standards to challenge the construction of new sources they disfavor. Section 112 provides that large new sources can be constructed only if it is determined they "will comply" with the applicable standard if they are "properly constructed . . . and operated." §7412(i)(1). When Section 112 standards require impossible perfect performance at all times, private plaintiffs may file suits challenging EPA and State decisions allowing construction of new sources by arguing it cannot be determined they "will comply" with the impossible at-all-times standards.

III. The Court's review is especially warranted because of the exclusive jurisdiction of the D.C. Circuit and the substantial burdens its decisions impose on the federal courts.

Challenges to a Section 112 "emission standard" "may be filed only in the United States Court of Appeals for the District of Columbia." §7607(b)(1). The Act further provides that Section 112 standards "shall not be subject to judicial review in civil or criminal proceedings for enforcement" in other courts. §7607(b)(2). Because the D.C. Circuit has exclusive jurisdiction to review impossible Section 112 standards, this is "a matter of special importance to the entire Nation" that warrants the Court's review. *Cardinal Chem. Co. v. Morton Int., Inc.*, 508 U.S. 83, 88 (1993).[10]

Moreover, while the D.C. Circuit alone has decided to allow EPA to add untold numbers of citizen suits to the Federal docket, they will almost all be filed in district courts in other circuits. The interests of district courts and other circuits that will bear the brunt of this decision favor the Court's review. Adding cases to the Federal docket is a significant decision, and the issue has only been considered by a single court of appeals. Given the stakes, additional judicial consideration is manifestly appropriate, and only the Court can provide it.

---

[10] The Court often grants review under these circumstances. *E.g., Kingdomware Techs., Inc. v. United States*, 136 S. Ct. 1969 (2016); *Michigan v. EPA*, 135 S. Ct. 2699 (2015); *Util. Air Reg. Grp. v. EPA*, 134 S. Ct. 2427 (2014); *Sebelius v. Cloer*, 133 S. Ct. 1886 (2013); *Henderson ex rel. Henderson v. Shinseki*, 562 U.S. 428 (2010); *United States v. Eurodif S.A.*, 555 U.S. 305 (2009); *National Cable & Teleccom. Ass'n v. Brand X Internet Services*, 545 U.S. 967 (2005).

CONCLUSION

This case is worthy of the Court's review, and the petition for a writ of certiorari should be granted.

Respectfully submitted,

DOUGLAS A. MCWILLIAMS
Counsel of Record
ALLEN A. KACENJAR
ROBERT D. CHEREN
SQUIRE PATTON BOGGS (US) LLP
4900 Key Tower
127 Public Square
Cleveland, Ohio 44114
(216) 479-8332
douglas.mcwilliams@squirepb.com

Counsel for Petitioner

March 23, 2017

APPENDIX

TABLE OF APPENDICES

Appendix A

Opinion of the United States Court of Appeals for the District of Columbia Circuit, dated July 29, 2016 ..... App-1

Appendix B

Opinion of the United States Court of Appeals for the District of Columbia Circuit, dated December 23, 2016 ..... App-168

Appendix C

Order of the United States Court of Appeals for the District of Columbia Circuit, dated December 23, 2016 (*en banc*) App-172

Appendix D

Order of the United States Court of Appeals for the District of Columbia Circuit, dated December 23, 2016 ..... App-174

Appendix E

Judgment of the United States Court of Appeals for the District of Columbia Circuit, dated December 23, 2016 ..... App-177

Appendix F

42 U.S.C. §7412 ..... App-180

42 U.S.C. §7413 ..... App-278

42 U.S.C. §7604 ..... App-296

APPENDIX A

UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

◆

Argued December 3, 2015 Decided July 29, 2016

◆

No. 11-1108

◆

UNITED STATES SUGAR CORPORATION, PETITIONER

v.

ENVIRONMENTAL PROTECTION AGENCY, RESPONDENT

AMERICAN CHEMISTRY COUNCIL, ET AL., INTERVENORS

◆

Consolidated with 11-1124, 11-1134, 11-1142, 11-1145, 11-1159, 11-1165, 11-1172, 11-1174, 11-1181, 13-1086, 13-1087, 13-1091, 13-1092, 13-1096, 13-1097, 13-1098, 13-1099, 13-1100, 13-1103

◆

On Petition for Review of Final Action of the United States Environmental Protection Agency

◆

William L. Wehrum Jr., *David M. Friedland*, and *Douglas A. McWilliams* argued the causes for Industry Petitioners. With them on the briefs were *Allen A. Kacenjar*, *Katy M. Franz*, *Lisa Marie Jaeger*, *Sandra Y. Snyder*, *Peter H. Wyckoff*, *Claudia M.*

O'Brien, *Stacey L. VanBelleghem*, *Eli Hopson*, *Jane C. Luxton*, *Lauren E. Freeman*, *Elizabeth L. Horner*, *William F. Lane*, *Alan H. McConnell*, *Timothy S. Bishop*, *Kevin G. Desharnais*, *Chad M. Clamage*, *Ronald A. Shipley*, *Quentin Riegel*, *Linda E. Kelly*, and *Jeffrey A. Knight*. *Rachel Brand*, *Leslie A. Hulse*, *Harry M. Ng*, *Scott J. Stone*, *John P. Wagner*, and *Lee B. Zeugin* entered appearances.

James S. Pew and *Sanjay Narayan* were on the briefs for Environmental Petitioners. *Neil Gormley* entered an appearance.

Perry M. Rosen and *Norman L. Rave, Jr.*, Attorneys, U.S. Department of Justice, argued the causes for respondent. With them on the brief was *John C. Cruden*, Assistant Attorney General, and *Norman L. Rave, Jr.*, Attorney. *Sam Hirsch* and *Madeline P. Fleisher*, Attorneys, entered appearances.

James S. Pew and *Neil Gormley* argued the causes for Environmental Respondent-Intervenors. With them on the briefs was *Sanjay Narayan*.

William L. Wehrum, *Quentin Riegel*, *Linda E. Kelly*, *Patrick Forrest*, *Douglas A. McWilliams*, *Peter H. Wyckoff*, *Jeffrey A. Knight*, *Claudia M. O'Brien*, *Stacey L. VanBelleghem*, *Lisa Marie Jaeger*, *Sandra Y. Snyder*, *David M. Friedland*, *William F. Lane*, *Alan H. McConnell*, *Ronald A. Shipley*, *Carol F. McCabe*, *Suzanne Ilene Schiller*, *Michael Dillon*, *Charles Howland Knauss*, *Shannon S. Broome*, *Timothy S. Bishop*, *Kevin G. Desharnais*, *Chad M. Clamage*, *Lauren E. Freeman*, *Elizabeth L. Horner*, *Larry B. Alexander*, and *Leslie A. Hulse* were on the brief for Industry Intervenor-Respondents. *Allen A. Kacenjar Jr.*, *Rachel L. Brand*, *Harry M. Ng*, *Scott J. Stone*, *John P. Wagner*, and *Lee B. Zeugin* entered appearances.

No. 11-1125

AMERICAN FOREST & PAPER ASSOCIATION, ET AL.,
PETITIONER

v.

ENVIRONMENTAL PROTECTION AGENCY,
RESPONDENT

AMERICAN CHEMISTRY COUNCIL, ET AL.,
INTERVENORS

Consolidated with 11-1140, 11-1144, 11-1154, 11-1155, 11-1161, 11-1171, 11-1173, 11-1180, 11-1183, 11-1188, 13-1111, 13-1113, 13-1114, 13-1116, 13-1118, 13-1119, 13-1120, 13-1121, 13-1123, 13-1124, 13-1127

On Petitions for Review of a Final Action of the United States Environmental Protection Agency

No. 11-1141

William L. Wehrum, *Douglas A. McWilliams*, and *Jason T. Morgan* argued the causes for Industry Petitioners. On the briefs were *Richard G. Stoll*, *Leslie A. Hulse*, *Lisa Marie Jaeger*, *Sandra Y. Snyder*, *Peter H. Wyckoff*, *Jeffrey A. Knight*, *David M. Friedland*, *Jessalee Landfried*, *Michael B. Wigmore*, *Ronald A. Shipley*, *Chet M. Thompson*, *Linda E. Kelly*, *Quentin Riegel*, *William F. Lane*, *Alan H. McConnell*, *Carol F. McCabe*, *Suzanne Ilene Schiller*,

and *Michael Dillon*. *David Y. Chung*, *Rachel L. Brand*, *Julia L. German*, *Jeffrey W. Leppo*, and *Jane C. Luxton* entered appearances.

Neil Gormley and *James S. Pew* argued the causes and filed the briefs for Environmental Petitioners.

Perry M. Rosen and *Norman L. Rave, Jr.*, Attorneys, U.S. Department of Justice, argued the causes for respondent. With them on the brief was *John C. Cruden*, Assistant Attorney General. *Madeline P. Fleisher*, Attorney, entered an appearance.

James S. Pew and *Neil Gormley* argued the causes and filed the briefs for Environmental Respondent-Intervenors.

David M. Friedland and *William L. Wehrum* argued the causes for Industry Intervenor-Respondents. With them on the briefs were *Jessalee Landfried*, *Leslie A. Hulse*, *Richard G. Stoll*, *Ronald A. Shipley*, *William F. Lane*, *Alan H. McConnell*, *James T. Morgan*, *Lisa Marie Jaeger*, *Sandra Y. Snyder*, *Jeffrey A. Knight*, *Shannon S. Broome*, *Carol McCabe*, *Suzanne Ilene Schiller*, *Michael Dillon*, *Linda E. Kelly*, *Quentin Riegel*, and *Charles H. Knauss*. *Scott J. Stone*, *Lori A. Rubin*, and *Jeffrey W. Leppo* entered appearances.

No. 11-1141

AMERICAN CHEMISTRY COUNCIL,
PETITIONER

v.

ENVIRONMENTAL PROTECTION AGENCY,
RESPONDENT

AMERICAN FOREST & PAPER ASSOCIATION, ET AL.,
INTERVENORS

◆

Consolidated with 11-1182, 11-1207, 11-1208,
13-1105, 13-1107

◆

On Petitions for Review of a Final Action of the
United States Environmental Protection Agency

◆

William L. Wehrum and *David M. Friedland* argued the causes for Industry Petitioners. On the briefs were *Lisa Marie Jaeger*, *Sandra Y. Snyder*, *Jeffrey A. Knight*, *Quentin Riegel*, and *Leslie A. Hulse*. *Harry M. Ng*, *Scott J. Stone*, and *John P. Wagner* entered appearances.

Neil Gormley argued the cause for Environmental Petitioners. With him on the briefs was *James S. Pew*.

Perry M. Rosen and *Norman L. Rave, Jr.*, Attorneys, U.S. Department of Justice, argued the causes for respondent. With them on the brief was *John C. Cruden*, Assistant Attorney General. *Madeline P. Fleisher*, Attorney, entered an appearance.

David M. Friedland and *William L. Wehrum* argued the causes for Industry Intervenor-Respondents. With them on the briefs were *Lisa Marie Jaeger*, *Sandra Y. Snyder*, *Jeffrey A. Knight*, *William F. Pedersen*, *Pamela A. Lacey*, *William F. Lane*, *Linda E. Kelly*, *Quentin Riegel*, *James W. Conrad, Jr.*, and *Leslie A. Hulse*. *Harry M. Ng*, *Scott J. Stone*, *John P. Wagner*, and *Nidhi J. Thakar* entered appearances.

James S. Pew and *Neil Gormley* were on the brief for Environmental Respondent-Intervenors.

Before: Henderson, Brown, and Griffith, *Circuit Judges*.

PER CURIAM: In these consolidated petitions for review, we address approximately thirty challenges to three regulations promulgated by the United States Environmental Protection Agency (EPA or Agency): (1) the "Major Boilers Rule,"[1] (2) the "Area Boilers Rule,"[2] and (3) the "Commercial/Industrial Solid Waste Incinerators (CISWI) Rule."[3] Collectively, these rules—all promulgated under the Clean Air Act (CAA or Act), 42 U.S.C. §§ 7401 *et seq*.—set emissions limits on certain combustion machinery known to release hazardous air pollutants (HAPs).

---

[1] National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (2011 Major Boilers Rule), 76 Fed. Reg. 15,608 (Mar. 21, 2011), *as amended*, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (2013 Major Boilers Rule), 78 Fed. Reg. 7,138 (Jan. 31, 2013).

[2] National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers (2011 Area Boilers Rule), 76 Fed. Reg. 15,554 (Mar. 21, 2011), *as amended*, National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers (2013 Area Boilers Rule), 78 Fed. Reg. 7,488 (Feb. 1, 2013).

[3] Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incinerator Units (2011 CISWI Rule), 76 Fed. Reg. 15,704 (Mar. 21, 2011), *as amended*, Commercial and Industrial Solid Waste Incineration Units: Reconsideration and Final Amendments; Non-Hazardous Secondary Materials that Are Solid Waste (2013 CISWI Rule), 78 Fed. Reg. 9,112 (Feb. 7, 2013).

Roughly one-half of the challenges are advanced by a group of municipal-electric organizations, industrial-trade associations, oil-and-gas industry representatives, and other entities that own and operate boilers, process heaters, and incinerators (Industry Petitioners). The other one-half are pressed by organizations interested in safeguarding the environment (Environmental Petitioners).

I. BACKGROUND

The three rules at issue address a common phenomenon: when combustion occurs, emissions result. The emissions include numerous materials, some of which pose risks to the environment in general and to human health in particular. Because combustion is an inevitable occurrence in the machinery that helps to power modern society, the Congress has authorized the EPA to provide for a regulatory framework that minimizes the deleterious effects of the incineration industry while simultaneously allowing it to operate.

In 2013, the EPA finalized its efforts to do so for discrete types of combustion machinery: boilers, process heaters, and incinerators. Two of the three rules at issue—the Major Boilers Rule and the Area Boilers Rule—govern boilers and process heaters. The former are enclosed devices that use a controlled flame to heat water and convert it into steam or hot water. 40 C.F.R. § 63.11237. The latter are also enclosed devices that use a controlled flame but, instead of generating steam, they indirectly heat a "process material," whether liquid, gas, or solid, or a "heat transfer material" like glycol or a mixture of glycol and water. *Id*. For simplicity, our use of "boilers" covers both machinery types.

The two boiler-specific rules further divide the machinery into three categories: industrial, commercial, and institutional. *See* 2011 Area Boilers Rule, 76 Fed. Reg. at 15,557. Industrial boilers are used for manufacturing, processing, mining, refining, and other similar operations. *See id*. Commercial boilers are used by shopping malls, laundromats, apartment complexes, restaurants, and hotels. *See id*. And institutional boilers include those used by, *e.g.*, medical centers, schools, churches, prisons, and courthouses. *See id*. Collectively, over 200,000 boilers at over 100,000 separate facilities must comply with the standards set out in the Major Boilers Rule or the Area Boilers Rule.

The third rule that we address—the CISWI Rule—governs combustion machinery known as "solid waste incineration unit[s]." 42 U.S.C. § 7429. The Act defines an incinerator as a "distinct operating unit of any facility" that burns solid waste from either commercial establishments, industrial establishments, or the general public. *Id*. § 7429(g)(1). An incinerator subjects "waste material" to "high temperatures until it is reduced to ash." Incinerator, NEW OXFORD AMERICAN DICTIONARY 853 (2d ed. 2005). Incinerators fall into different subcategories and, in the past, the EPA has issued rules governing many of them, including, *e.g.*, municipal solid-waste incinerators, medical-waste incinerators, and sewage-sludge incinerators.[4] At issue in the CISWI Rule are incinerators located in commercial or industrial facilities that combust solid waste as defined in the Resource Conservation Recovery Act (RCRA), 42

---

[4] *See, e.g.*, 40 C.F.R. pt. 60, subpts. Cd, Ce, Eb, AAAA, BBBB, EEEE, FFFF, LLLL, MMMM.

U.S.C. §§ 6901 *et seq*. *See* 2011 CISWI Rule, 76 Fed. Reg. at 15,706.

A. THE CLEAN AIR ACT, 42 U.S.C. §§ 7401 *ET SEQ*.

Enacted "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population," 42 U.S.C. § 7401(b)(1), the Act has been amended several times since the Congress first attempted to control air pollution via legislation in 1963. In 1970, the Congress required the EPA to identify and publish a list of HAPs, which the CAA defined as substances that increase "mortality," "serious irreversible" illness, or "incapacitating reversible" illness. Clean Air Amendments of 1970, Pub. L. No. 91-604, § 4(a), 84 Stat. 1676, 1685 (1970). The EPA had to set emission limits for every HAP based on the risk it posed to human health. *See Sierra Club v. EPA (Sierra Club I)*, 353 F.3d 976, 979 (D.C. Cir. 2004). In other words, the EPA was to "consider[] levels of HAPs at which health effects are observed, factor[] in an ample margin of safety to protect the public health, and set emission restrictions accordingly." *Id*. (quotation marks omitted).

The risk-focused approach to capping HAP emissions left something to be desired. "In light of unrealistic time frames and scientific uncertain[t]y over which substances posed a threat to public health," the EPA "only listed eight pollutants as hazardous between 1970 and 1990," *Nat. Res. Def. Council v. EPA (NRDC II)*, 529 F.3d 1077, 1079 (D.C. Cir. 2008), and set "emission standards for [only] seven of them," *Sierra Club I*, 353 F.3d at 979; *see also* S. REP. NO. 101-228, at 3 (1989) ("Very little has been done since the passage of the 1970 Act to identify and control hazardous air pollutants."). After

twenty years of the risk-based approach, the Congress went back to the drawing board and, via the 1990 CAA Amendments, Pub. L. No. 101-549, 104 Stat. 2399 (1990), established the *technology-based* approach that governs today. *See Sierra Club I*, 353 F.3d at 979.

1. 42 U.S.C. § 7412—"Hazardous Air Pollutants"

The 1990 CAA Amendments overhauled the Act's "Hazardous Air Pollutants" provision, codified at 42 U.S.C. § 7412. Although earlier iterations of the Act had assigned HAPs-identification responsibility to the EPA, the slow pace at which the EPA discharged its duty prompted the Congress to create a list of pollutants itself.[5] *See Sierra Club I*, 353 F.3d at 979–80 (citing 42 U.S.C. § 7412(b)). After identifying nearly two hundred HAPs that warranted emissions restrictions, *see* 42 U.S.C. § 7412(b)(1), the Congress directed the EPA, first, to identify the sources of each HAP, *see id*. § 7412(c). The Agency then was to set emissions limits for each source that result in HAPs reduction to the greatest extent achievable by current technology. *See generally Nat'l Ass'n for Surface Finishing v. EPA*, 795 F.3d 1, 4 (D.C. Cir. 2015) (citing 42 U.S.C. § 7412(b)(1), (c), (d)).

a. Identifying and Categorizing HAP Sources

The EPA's first task is to create HAP-source categories and subcategories. *See* 42 U.S.C. § 7412(c). The Act distinguishes "major" from "area" sources, defining the former as "any stationary source or group of stationary sources" that neighbor each

---

[5] The EPA must keep the HAPs list current. *See* 42 U.S.C. § 7412(b)(2), (3).

other, share common control, and emit (or have the potential to emit) either ten tons per year or more of any single HAP or twenty-five tons per year or more of any HAP combination.[6] *Id*. § 7412(a)(1). The latter are sources that do not emit enough HAPs to qualify as "major." *Id*. § 7412(a)(2). Although the EPA must set stringent restrictions on major sources, it has discretion to set more lenient emissions caps on area sources. *See id*. § 7412(d)(5). Apart from the statutory distinction between major and area sources, the EPA has discretion to differentiate "among classes, types, and sizes of sources within a category or subcategory." *Id*. § 7412(d)(1). Once the EPA finalizes HAPs-source categories and subcategories, the CAA mandates that it draw one final dividing line—between "new" sources and "existing" sources. *See id*. § 7412(d)(3). "New" sources are those "on which construction begins after EPA publishes emission standards," *Cement Kiln Recycling Coal. v. EPA*, 255 F.3d 855, 858 (D.C. Cir. 2001); most of the others are "existing" sources, *see* 42 U.S.C. § 7412(a)(10). But if an existing source experiences either a physical change or a change in operation method *and* the change increases HAP emissions by more than a *de minimis* amount, the Act mandates that the source meet the standards set for new sources. *See id*. § 7412(a)(5), (g).

---

[6] The CAA defines "stationary source" as "any building, structure, facility, or installation which emits or may emit any air pollutant." 42 U.S.C. § 7411(a)(3).

b. Setting Emission Standards for Major Sources—the "MACT" Standard

After the EPA identifies HAP-source categories and subcategories, it then sets emissions limits for each. *See id*. § 7412(d)(2). "[W]henever . . . feasible," the caps must use numeric HAPs limits. *Id*. § 7412(h)(4). The size of the source—either "major" or "area"—dictates whether the EPA must set the numeric limit at the most stringent level that current technology allows or at the level set by "generally available control technologies." *Id*. § 7412(d)(5). For major sources, the CAA directs the EPA to establish emissions caps that result in the "the maximum degree of reduction in emissions" that the EPA determines is "achievable." *Id*. § 7412(d)(2). We refer to an emissions cap that reflects the current "maximum achievable control technology" as a "MACT" standard. *See NRDC II*, 529 F.3d at 1079. Setting a MACT standard is a two-step process.

First, the EPA establishes a "MACT floor" for each category or subcategory. *Sierra Club I*, 353 F.3d at 980. The MACT floor ensures that all HAPs sources "at least clean up their emissions to the level that their best performing peers have shown can be achieved." *Id*. For new sources—those built after promulgation of a HAPs limit, *see* 42 U.S.C. § 7412(a)(4)—the MACT floor cannot be less stringent than the emissions levels achieved by the best performing similar source. *Id*. § 7412(d)(3). For existing sources in categories or subcategories that have thirty or more sources, the MACT floor cannot be less stringent than the average emissions limits achieved by the best performing 12 per cent of existing sources in that category or subcategory. *Id*. § 7412(d)(3)(A). And for existing sources in categories

or subcategories with fewer than thirty sources, the MACT floor cannot be less stringent than the average emissions achieved by the best performing five sources. *Id*. § 7412(d)(3)(B). When setting the MACT floor, the EPA considers *only* the performance of the cleanest sources in a category or subcategory; it does not take into account other factors, including the cost of putting a source in line with its better-performing counterparts. *See Cement Kiln*, 255 F.3d at 857-58 (citing *Nat'l Lime Ass'n v. EPA*, 233 F.3d 625, 629 (D.C. Cir. 2000), *as amended on denial of reh'g*, No. 99-1325 (D.C. Cir. Feb. 14, 2001)).

Second, the EPA must determine whether current technology makes it possible for a source to perform even better than the best performing similar source or sources. In other words, the CAA directs the EPA to consider whether it should set a "beyond-the-floor" MACT standard. *Nat'l Lime Ass'n*, 233 F.3d at 629. In determining whether a beyond-the-floor standard is "achievable," the Agency must consider additional factors like "the cost of achieving such emission reduction," "any non-air quality health and environmental impacts" and "energy requirements." 42 U.S.C. § 7412(d)(2). It has broad discretion in its determination. *See id.*; *cf. Nat'l Ass'n of Clean Water Agencies v. EPA (NACWA)*, 734 F.3d 1115, 1157 (D.C. Cir. 2013) (noting, in section 7429 case, that "Congress gave EPA broad discretion in considering whether to go beyond-the-floor").

c. Setting Emission Standards for Area Sources—the "GACT" Standard

Although the EPA must cap HAP emissions from major sources at the "maximum degree of reduction," *see* 42 U.S.C. § 7412(d)(2), it has discretion to set less stringent caps on emissions from area sources.

Indeed, the EPA need not list categories of area sources at all unless: (A) it finds that the sources in that category or subcategory "present[] a threat of adverse effects" to the environment or human health, *see id*. § 7412(c)(1), (3); or (B) control of a particular area source category or subcategory is necessary to ensure that sources accounting for at least 90 per cent of the aggregate emissions of the thirty HAPs the EPA believes "present the greatest threat to public health in the largest number of urban areas" are subject to CAA control, id. § 7412(c)(3), (k)(3)(B). If it finds that controlling emissions from a particular area source subcategory is necessary to achieve a 90 per cent reduction in the aggregate emissions of any of seven CAA-enumerated HAPs, section 7412(c)(6) requires the Agency to impose MACT caps on that subcategory. *See id*. § 7412(c)(6).

With the exception of section 7412(c)(6)'s MACT-standard requirement, the EPA need not cap emissions from area sources at the MACT level. Instead, it may set more lenient emissions limits based on "generally available control technologies." *Id*. § 7412(d)(5). We refer to these caps as GACT standards. The Act provides no guidance for setting GACT standards but the legislative history of the 1990 CAA Amendments describes GACT "as methods, practices and techniques [that] are commercially available and appropriate for application by the sources in the category considering economic impacts and the technical capabilities of the firms to operate and maintain the emissions control systems." S. REP. NO. 101-228, at 171 (1989). According to the EPA, it can and will consider the following in setting a GACT standard:

- "costs and economic impacts . . . , which [are] particularly important when developing regulations for source categories that may have many small businesses . . . ";
- "the control technologies and management practices that are generally available to the area sources in the source category";
- "the standards applicable to major sources in the analogous source category to determine if the control technologies and management practices are transferable and generally available to area sources"; and
- "technologies and practices at area and major sources in similar categories to determine whether such technologies and practices could be considered generally available for the area source categories at issue."

2011 Area Boilers Rule, 76 Fed. Reg. at 15,556. And, unlike the EPA's duty to consider a beyond-the-floor MACT standard, it need not consider a more stringent GACT standard.

d. Work-Practice and Management-Practice Standards

Although the CAA requires numeric emission standards where possible, the EPA can "promulgate a design, equipment, work practice, or operational standard, or combination thereof" if it determines that a numeric limit is "not feasible." 42 U.S.C. § 7412(h)(1). In other words, the EPA can require that all sources in a given category or subcategory take a certain action (*e.g.*, conduct a periodic tune-up) or install certain emissions-control technology (*e.g.*, install a fabric filter). Although the EPA has discretion to impose a work-practice standard, the

Act limits it by defining the operative phrase "not feasible" narrowly to mean:

> (A) a hazardous air pollutant or pollutants cannot be emitted through a conveyance designed and constructed to emit or capture such pollutant, or that any requirement for, or use of, such a conveyance would be inconsistent with any Federal, State or local law, or
>
> (B) the application of measurement methodology to a particular class of sources is not practicable due to technological and economic limitations.

Id. § 7412(h)(2).

Similarly, for area sources, the EPA can impose a "management-practice standard" in lieu of a numeric GACT standard. *See id*. § 7412(d)(5). A management-practice GACT standard is like a work-practice MACT standard in all ways but one—the EPA need not consider feasibility when setting management-practice standards. *Compare id*. § 7412(d)(2), *with id*. § 7412(d)(5).

2. 42 U.S.C. § 7429—"Solid Waste Combustion"

In addition to amending the Act's "Hazardous Air Pollutants" provision, *see id*. § 7412, the 1990 CAA Amendments added to the U.S. Code section 7429, titled "Solid Waste Combustion." Section 7429 regulates "solid waste incineration units" generally, *see id*. § 7429(a)(1)(A), and CISWI specifically, *see id*. § 7429(a)(1)(D). Although section 7412 requires the EPA to control emissions of nearly two hundred HAPs, *see id*. § 7412(d)(1), section 7429 mandates that the EPA control emissions from only nine specific pollutants (as well as opacity, where

appropriate), none of which the Congress included on its initial section 7412 list, *see id*. § 7429(a)(4); *see also Nat. Res. Def. Council v. EPA (NRDC I)*, 489 F.3d 1250, 1256 (D.C. Cir. 2007). We have held that this difference "makes promulgating . . . standards under [section 7412] and [section 7429] mutually exclusive." *NACWA*, 734 F.3d at 1119. In other words, if a source (or facility) is considered a CISWI and, therefore, regulated under section 7429, it cannot be regulated under section 7412. *See id*.

Whether a source falls under section 7412 or section 7429, "the statutory directive on setting MACT standards is virtually identical." *Id.*; *see also Nat'l Lime Ass'n*, 233 F.3d at 631. That said, regulation under one section instead of the other "has practical consequences." *NACWA*, 734 F.3d at 1120. For example, section 7412 allows the EPA to impose a GACT standard for area sources only but section 7429 requires the EPA to impose MACT standards for all covered units, regardless of their size. *Compare* 42 U.S.C. § 7412(d)(1), (5), *with id.* § 7429(a)(1)(A); *see also NRDC I*, 489 F.3d at 1256. Moreover, section 7412 mandates that the EPA control HAP emissions from "major source[s]," which the Act defines broadly to include "*group[s]* of stationary sources located within a contiguous area and under common control." 42 U.S.C. § 7412(a)(1) (emphasis added). Section 7429, in contrast, mandates that the EPA control emissions from "solid waste incineration *unit[s]*," which the Act defines more narrowly as "a *distinct operating unit* of any facility which combusts any solid waste material," 42 U.S.C. § 7429(g)(1) (emphases added). And finally, section 7429 does not provide for work-practice standards.

3. 42 U.S.C. §§ 7661 et seq.—"Title V Permits"

Finally, the 1990 CAA Amendments added a provision to Title V of the Act that requires all owners and operators of HAP sources to obtain operating permits. *See id*. § 7661a. Title V does no more than consolidate "existing air pollution requirements into a single document, the Title V permit, to facilitate compliance monitoring" without imposing any new substantive requirements. *Sierra Club v. Leavitt*, 368 F.3d 1300, 1302 (11th Cir. 2004). The legislative history of the 1990 CAA Amendments indicates that the Congress required the "Title V permits" so that the public might "better determine the requirements to which the source is subject, and whether the source is meeting those requirements." S. REP. NO. 101-228, at 347. Although owners and operators of all major HAP sources must obtain Title V permits, *see generally* 42 U.S.C. § 7661a(a), the EPA has discretion to exempt certain area source categories if it "finds that compliance with such requirements is impracticable, infeasible, or unnecessarily burdensome," *id*.

B. THE MAJOR BOILERS, AREA BOILERS, AND CISWI RULES

On March 21, 2011, the EPA issued the first iteration of all three rules under review. That same day, however, the EPA announced that it intended to reconsider certain aspects of each rule. Not long after, multiple parties filed the petitions for review that we now address. Earlier, the EPA had concluded its reconsideration and issued the most recent iteration of the three rules. Because of this procedural quirk, each "rule" we address is in fact two separate rules—the EPA's "final" 2011 version and its "final" 2013 version. The EPA's analyses remained mostly

consistent from 2011 to 2013 and we indicate, where necessary, the instances in which the EPA changed course in a significant way.

1. The Major Boilers Rule

The Major Boilers Rule sets HAPs emission caps for all industrial, commercial, and institutional boilers that emit a large volume of HAPs. *See* 2011 Major Boilers Rule, 76 Fed. Reg. at 15,611. The EPA further divided the major boiler categories into subcategories based on the primary fuel combusted by the boilers in the subcategory (e.g., coal, biomass, gas, etc.) and, for some subcategories, based on the method used to "feed" the fuel into the boiler. *See* 2013 Major Boilers Rule, 78 Fed. Reg. at 7,144. For most of the subcategories, the EPA set a numeric MACT standard for four different HAPs: particulate matter (PM); hydrogen chloride (HCl); mercury (Hg); and carbon monoxide (CO). *See id*. at 7,142 tbl.3; No. 11-1108 EPA Br. 9. The EPA used some of these HAPs—particularly CO—as a surrogate (or proxy) to set emissions limits for others on the section 7412(b) HAPs list. *See* 2013 Major Boilers Rule, 78 Fed. Reg. at 7,144-45. For the other major boiler subcategories, the EPA set a work-practice standard (specifically, a tune-up requirement) in lieu of numeric MACT standards. *See* 2011 Major Boilers Rule, 76 Fed. Reg. at 15,613.[7] The EPA also established a tune-up work-

---

[7] The four major boiler subcategories for which the EPA established work-practice standards include "[n]ew and existing units that have a designed heat input capacity of less than 10 MMBtu/hr, and new and existing units in the Gas 1 (natural gas/refinery gas) subcategory and in the metal process furnaces subcategory." 2011 Major Boilers Rule, 76 Fed. Reg. at 15,613.

practice standard to control for dioxin/furan emissions across all major boiler subcategories. 2013 Major Boilers Rule, 78 Fed. Reg. at 7,138.

In addition to these emission standards, the Major Boilers Rule includes several other provisions relevant to the current petitions for review.

a. The "Upper Prediction Limit"

Several factors complicate the process of setting MACT floors. The first is the CAA itself, which mandates that all MACT floors (1) must be *achievable*, *see* 42 U.S.C. § 7412(d)(2); (2) must ensure *continuous* regulation of the covered sources, *see id*. § 7602(k); and (3) must be *no less stringent* than the emissions levels being achieved by the best-controlled sources, *see id*. § 7412(d)(3). The second is that no source emits any HAP at a constant level; rather, HAP emissions fluctuate over time and for many reasons, including, *e.g.*, "operation of control technologies, variation in combustion materials and combustion conditions, variation in operation of the unit itself, and variation associated with the emission measurement techniques." Memorandum from Stephen D. Page, EPA Director of Air Quality Planning and Standards, EPA's Response to Remand of the Record for Commercial and Industrial Solid Waste Incineration Units (Page Mem.) (July 14, 2014), at 3 (No. 11-1125 J.A. 1316). Finally, most sources do not measure their HAP emissions at all times and under all conditions.[8] *Id*. at 6. Instead, data are usually gathered when a source conducts a "three-

[8] As discussed below, however, the EPA does allow sources to demonstrate MACT compliance by use of "continuous monitors." *See infra* § IV.I.

run stack test." *Id*. This test provides three "snapshots" of a source's emissions in a limited set of conditions and, accordingly, it fails to demonstrate accurately a source's emissions during all times and under all conditions. *Id*.

To compensate for the lack of adequate emissions data, the EPA uses a statistical tool known as the "upper prediction limit" (UPL) to account for the expected variability in emissions levels. *See* 2011 Major Boilers Rule, 76 Fed. Reg. at 15,630. The UPL, in turn, allows the Agency to set a MACT floor that is continuously achievable. *Id*. We discuss the UPL mechanics at greater length below, *see infra* § IV.C, but, in short, the EPA: (1) ranks all sources in a given category based on their three-run stack-test data; (2) determines the HAP emissions level of the "best controlled similar source" to establish standards for *new* sources, 42 U.S.C. § 7412(d)(3), and determines the average HAP emissions levels of the best performing 12 per cent of sources to establish standards for *existing* sources, *id*. § 7412(d)(3)(A); and then (3) applies the UPL methodology to provide the cushion necessary to account for the expected peaks and valleys in HAP emissions not reflected in the three-run stack-test "snapshots." *See* Page Mem. 4, 6.

b. The "Pollutant-By-Pollutant" Approach

In identifying the best performing sources in a given category, often the EPA could not identify a single source that controlled all HAPs better than all other sources. Instead, the EPA found that one source effectively controlled emissions from one HAP but was nonetheless one of the worst-performing sources at controlling emissions from a different HAP. For this reason, the EPA adopted a "pollutant-

by-pollutant" approach in setting MACT floors for major boiler subcategories. *See* 2011 Major Boilers Rule, 76 Fed. Reg. at 15,622–23. That is, instead of identifying the one source that, on balance, best controlled *all* HAPs in the aggregate, the EPA used one source to set the MACT floor for, *e.g.*, PM, and used a different source to set the MACT floor for, *e.g.*, HCl. For at least two subcategories of major boilers—new heavy oil-fired units and existing stoker coal-fired units—the EPA's pollutant-by-pollutant approach resulted in MACT floors that no source had achieved *in toto*.

c. Startups, Shutdowns, and Malfunctions

The EPA found it difficult to account for HAP emissions when sources start up, shut down, and malfunction. All three occurrences alter HAP emissions and, historically, the EPA exempted sources from normal numeric MACT-standard compliance when these events occurred. *See, e.g.*, Standards of Performance for New Stationary Sources, 42 Fed. Reg. 57,125 (Nov. 1, 1977). Nevertheless, concluding that the Act "require[s] that there must be continuous section [7412]-compliant standards" and observing that the exemption meant that "no section [7412] standard governs these events," in 2008 we vacated the exemption for startups, shutdowns, and malfunctions when the issue arose in a case challenging a different rule. *Sierra Club v. EPA (Sierra Club III)*, 551 F.3d 1019, 1027–28 (D.C. Cir. 2008) (emphasis added).

In response to the *Sierra Club III* vacatur, the EPA established a work-practice standard in lieu of a numeric MACT standard during startup and shutdown periods (but not during malfunctions) when it

promulgated the Major Boilers Rule. See 2011 Major Boilers Rule, 76 Fed. Reg. at 15,613.[9] It did so after determining that the "physical limitations and the short duration of startup and shutdown periods" made it technologically infeasible to conduct the requisite testing for numeric emissions limits. *Id*. A work-practice standard sufficed, in the EPA's view, because "[p]eriods of startup, normal operations, and shutdown are all predictable and routine aspects of a source's operations." *Id*.

But because a malfunction is "sudden, infrequent, and not reasonably preventable," *id*. (quoting 40 C.F.R. § 63.2), the EPA declined to treat a malfunction as a "distinct operating mode," *id*. As a result, the EPA did not account for malfunctions when it set the MACT floors and it required sources to comply with all MACT floors even during periods of malfunction. *Id*. At the same time and recognizing that even the best equipment can fail and that such failure can spike emissions, the EPA added to the Major Boilers Rule "an affirmative defense to civil penalties for exceedances of numerical emission limits that are caused by malfunctions." *Id*. In reviewing a challenge to a different EPA rule, however, we vacated a materially identical affirmative-defense provision and held that the EPA has no power under the CAA to create

---

[9] Specifically, the startup and shutdown work-practice standard requires a source to follow "the manufacturer's recommended procedures for minimizing periods of startup and shutdown." 2011 Major Boilers Rule, 76 Fed. Reg. at 15,613. "If manufacturer's recommended procedures are not available," the Major Boilers Rule provided that "sources must follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available." *Id*. at 15,642.

a defense to civil liability. *See Natural Res. Def. Council v. EPA (NRDC III)*, 749 F.3d 1055, 1062-64 (D.C. Cir. 2014). Here, the EPA defends its decision not to address malfunctions by asserting that it will use its enforcement discretion regarding malfunctions on a case-by-case basis.

d. The One-Time Energy Assessment

The EPA also promulgated a "beyond-the-floor" requirement for all facilities with existing major boilers. *See* 2011 Major Boilers Rule, 76 Fed. Reg. at 15,613. Specifically, the Major Boilers Rule mandates a "a one-time energy assessment . . . on the affected boilers and facility to identify any cost-effective energy conservation measures," *id.*, which assessment includes, *inter alia*, a review of fuel usage, energy management practices, and conservation measures, *see* 2013 Major Boilers Rule, 78 Fed. Reg. at 7,198-99. In some respects, the energy assessment is limited: it (1) need occur only one time, *see* 40 C.F.R pt. 63, subpt. DDDDD tbl.3; (2) is "based on energy use by discrete segments of a facility and not by a total aggregation of all individual energy using elements of a facility," 2013 Major Boilers Rule, 78 Fed. Reg. at 7,146; and (3) does not require an owner or operator to implement any of the energy-saving findings the assessment makes. In one respect, however, it is expansive—it requires owners and operators to assess not only the boilers themselves but also other components "located on the site of the affected boiler that use energy provided by the boiler," including "compressed air systems" as well as "facility heating, ventilation, and air conditioning systems." 40 C.F.R. § 63.11237.

e. The Health-Based Emissions Limits for HCl

Although the EPA set numeric MACT standards to control HCl emissions, *see* 2013 Major Boilers Rule, 78 Fed. Reg. at 7,193–98 tbls.1 & 2, in an earlier iteration of the Major Boilers Rule, the EPA did not set MACT standards for HCl. *See* National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters (2004 Boilers Rule), 69 Fed. Reg. 55,218, 55,227 (Sept. 13, 2004). Instead, the Agency opted for a less stringent health-based emissions limit under section 7412(d)(4). *See id*. The EPA changed course after concluding that HCl emissions posed health concerns the Agency had not previously considered—in particular, the EPA feared the "potential *cumulative* public health and environmental effects" of HCl emissions, 2011 Major Boilers Rule, 76 Fed. Reg. at 15,643–44 (emphasis added)—and after recognizing that it did not have the requisite data to weigh adequately the newly identified health risks.

2. The Area Boilers Rule

In the Area Boilers Rule, the EPA set emissions limits for the same three boiler categories it controlled in the Major Boilers Rule, *see supra* § I.B.1: industrial, commercial, and institutional boilers. *See* 2013 Area Boilers Rule, 78 Fed. Reg. at 7,488. It further split the categories into seven subcategories, *see id.*, and set emissions limits for three of them, *see id*. at 7,517–18 tbls.1 & 2.[10] These include: (1) coal-

---

[10] As noted above, *see supra* § I.A.1.a, the EPA has some discretion in promulgating emissions limits for area HAP sources. Exercising its discretion, the EPA had previously determined that natural gas-fired area boilers did not emit HAPs at a level necessitating regulation. *See* National

fired boilers (i.e., "any boiler that burns any solid fossil fuel and no more than 15 percent biomass," 40 C.F.R. § 63.11237); (2) oil-fired boilers (*i.e.*, "any boiler that burns any liquid fuel and is not in either the biomass or coal subcategories," *id.*); and (3) biomass-fired boilers (*i.e.*, "any boiler that burns any" "biomass-based solid fuel that is not a solid waste" and "is not in the coal subcategory," *id.*). *See* 2013 Area Boilers Rule, 78 Fed. Reg. at 7,517–18 tbls.1 & 2.

For these subcategories, the EPA set emissions limits for three HAPs: Hg, PM, and CO, with PM functioning as a surrogate for non-Hg urban metals and CO functioning as a surrogate for polycyclic organic matter (POM). *See* 2011 Area Boilers Rule, 76 Fed. Reg. at 15,586. Because Hg and POM are both listed in section 7412(c)(6), the EPA had to set MACT standards for Hg and for CO (as surrogate for POM) for any area source category that, in the EPA's view, required MACT control to assure a 90 per cent reduction in the aggregate emissions of these two HAPs. *See* 42 U.S.C. § 7412(c)(6). The Agency complied, setting numeric MACT standards for Hg and CO emissions from *large* coal-fired boilers and a MACT work-practice standard (specifically, a tune-up requirement) for emissions from *small* coal-fired boilers. See 2013 Area Boilers Rule, 78 Fed. Reg. at 7,488, 7,517–18.[11] It did not, however, set MACT

Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers (2010 Proposed Area Boilers Rule), 75 Fed. Reg. 31,896, 31,900 (June 4, 2010).

[11] As used in the Area Boilers Rule, the difference between "large" and "small" units depends on the heat-input capacity of the unit. *See* 2013 Area Boilers Rule, 78 Fed. Reg. at 7,488. It is not the same as the difference between

standards for Hg and POM emissions from *biomass* or *oil*-fired boilers, finding it unnecessary to assure a 90 per cent reduction in aggregate emissions of those two HAPs. *See* 2011 Area Boilers Rule, 76 Fed. Reg. at 15,566. Thus, with the exception of Hg and CO emissions from coal-fired boilers, the EPA had discretion to promulgate GACT standards for all other HAPs in all other source subcategories. *See* 42 U.S.C. § 7412(d)(5). Exercising this discretion resulted in the following standards:

Boiler Subcategory	Size	Age	Hg Limit	Hg Type
Coal	Large	New	Numeric	MACT
		Existing	Numeric	MACT
	Small	New	Tune-Up	MACT
		Existing	Tune-Up	MACT
Biomass	Large	New	---	---
		Existing	---	---
	Small	New	---	---
		Existing	---	---
Oil	Large	New	---	---
		Existing	---	---
	Small	New	---	---
		Existing	---	---

"major" and "area" sources, which is based on the volume of HAPs a source emits. *See* 42 U.S.C. § 7412(a).

Boiler Subcategory	Size	Age	CO Limit	CO Type
Coal	Large	New	Numeric	MACT
		Existing	Numeric	MACT
	Small	New	Tune-up	MACT
		Existing	Tune-up	MACT
Biomass	Large	New	Tune-up	GACT
		Existing	Tune-up	GACT
	Small	New	Tune-up	GACT
		Existing	Tune-up	GACT
Oil	Large	New	Tune-up	GACT
		Existing	Tune-up	GACT
	Small	New	Tune-up	GACT
		Existing	Tune-up	GACT

Boiler Subcategory	Size	Age	PM Limit	PM Type
Coal	Large	New	Numeric	GACT
		Existing	Tune-up	GACT
	Small	New	Tune-up	GACT
		Existing	Tune-up	GACT
Biomass	Large	New	Numeric	GACT
		Existing	Tune-up	GACT
	Small	New	Tune-up	GACT
		Existing	Tune-up	GACT
Oil	Large	New	Numeric	GACT
		Existing	Tune-up	GACT
	Small	New	Tune-up	GACT
		Existing	Tune-up	GACT

2013 Area Boilers Rule, 78 Fed. Reg. at 7,488–89, 7,517–19.

The Area Boilers Rule shares many of the same features as the Major Boilers Rule; for example, the Area Boilers Rule treats startups, shutdowns, and malfunctions in the same fashion as the Major Boilers Rule, *see supra* § I.B.1.c—i.e., the Area Boilers Rule creates work-practice (or management-practice) standards for startup and shutdown periods but does not account for malfunctions at all, save for the Agency's commitment to consider malfunctions on a case-by-case basis. *See* 2013 Area Boilers Rule, 78 Fed. Reg. at 7,496; 2011 Area Boilers Rule, 76 Fed. Reg. at 15,560-61. Additionally, the Area Boilers Rule imposes the same one-time energy-assessment requirement for existing large area boilers that the Major Boilers Rule imposes for existing major boilers. *See supra* § I.B.1.d; *see also* 2013 Area Boilers Rule, 78 Fed. Reg. at 7,500; 2011 Area Boilers Rule, 76

Fed. Reg. at 15,560, 15,567–68. There are, however, two unique features of the Area Boilers Rule that warrant brief discussion.

a. Exclusion of "Temporary Boilers"

After the EPA promulgated the 2011 Area Boilers Rule but before it promulgated the 2013 version, it proposed an amendment to 40 C.F.R. § 63.11195 that added temporary boilers to the list of those boilers not regulated by section 7412. *See* National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers (2011 Proposed Area Boilers Rule on Reconsideration), 76 Fed. Reg. 80,532, 80,535 (Dec. 23, 2011). The EPA created the exclusion because, in its view, temporary boilers are "insignificant sources[] and were not included in the EPA's analysis of the source category." *Id*. The Agency eventually defined "temporary boiler" as "any gaseous or liquid fuel boiler that is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers, or platforms." *See* 2013 Area Boilers Rule, 78 Fed. Reg. at 7,491 (quoting 40 C.F.R. § 63.11237).

b. Title V Permit Exemption for Synthetic Area Sources

As noted, see supra § I.A.3, Title V of the CAA imposes a permit requirement on all owners and operators of major and area HAP sources. *See* 42 U.S.C. § 7661a. The EPA, however, can exempt an area source subcategory if it finds "that compliance with such requirements is impracticable, infeasible, or unnecessarily burdensome on such categories." *Id*. § 7661a(a). When it proposed the Area Boilers Rule

in 2010, the EPA considered exempting some area sources because, in its view, the existing restrictions on those sources made Title V duplicative. *See* 2010 Proposed Area Boilers Rule, 75 Fed. Reg. at 31,910-13. At the time, the EPA announced that it did not intend to exempt "synthetic" area sources (i.e., area sources that, but for existing air-pollution controls, would be considered major sources). *Id*. at 31,913. In so doing, the EPA reasoned that synthetic area sources: (1) more closely resemble major sources than area sources, (2) are often located in populous areas, and (3) have high HAP emissions potential when uncontrolled. *Id*. But in the 2011 Area Boilers Rule, the EPA changed course and exempted synthetic area sources from the Title V permitting requirement. *See* 76 Fed. Reg. at 15,578. It reasoned that the "observations and data . . . relied upon in other rulemakings for distinguishing between sources that became synthetic area sources due to controls and other synthetic and natural area sources did not necessarily apply to this source category." *Id*. In its view, it no longer had "sufficient information" to distinguish synthetic area sources from the others it exempted and, accordingly, "the rationale for exempting most area sources subject to this rule . . . is also now relevant for" synthetic area sources. *Id*.; *see also* 2013 Area Boilers Rule, 78 Fed. Reg. at 7,497.

3. The CISWI Rule

In the CISWI Rule, the EPA created four CISWI subcategories: (1) incinerators (*i.e.*, "units designed to burn [solid] waste materials for the purpose of disposal"); (2) small, remote incinerators ("SRIs") (i.e., units that burn small waste batches); (3) energy recovery units ("ERUs") (*i.e.*, units that would be classified as boilers but for the fact they combust

solid waste); and (4) waste-burning kilns (*i.e.*, units that would be classified as cement kilns if they did not burn solid waste). 2013 CISWI Rule, 78 Fed. Reg. at 9,118. Initially, the EPA proposed a fifth subcategory—burn-off ovens—but eliminated burn-off ovens after comments revealed that it had greatly underestimated the number of units in that subcategory (36 versus 15,000) and that it lacked the requisite data to set limits for the units. *See* 2011 CISWI Rule, 76 Fed. Reg. at 15,734. Of the four CISWI subcategories, the EPA further divided the ERU subcategory (for CO emissions only) into coal-fired, biomass-fired and oil/gas-fired ERUs and it further divided the waste-burning kiln subcategory (again, for CO emissions only) into long and preheater/precalcinator kilns. *See* 2013 CISWI Rule, 78 Fed. Reg. at 9,118 tbl.2.

The EPA then set numeric MACT limits for the section 7429(a)(4) pollutants.[12] *See* 2011 CISWI Rule, 76 Fed. Reg. at 15,709–10 tbl.1. Unlike the Major Boilers Rule and the Area Boilers Rule, the CISWI Rule contains no beyond-the-floor MACT standards. The EPA also declined to promulgate work-practice standards, concluding that it had no authority to do so because section 7429 includes no work-practice standard provision similar to that in section 7412. *See id*. at 15,721.

The CISWI Rule shares several features with the Major Boilers Rule. In the CISWI Rule, for instance, the EPA also used the UPL, *see id*. at 15,722-27, as well as the pollutant-by-pollutant approach, *see id*. at

---

[12] These pollutants are (1) PM, (2) sulfur dioxide (SO2), (3) HCl, (4) nitrogen oxide (NOx), (5) CO, (6) lead (Pb), (7) cadmium (Cd), (8) Hg, (9) dioxins and dibenzofurans, and (10) opacity (where appropriate). 42 U.S.C. § 7429(a)(4).

15,719–21, in setting MACT floors. Based in part on the differences between section 7412 and section 7429, the CISWI rule has four unique characteristics we briefly describe.

a. Startups, Shutdowns, and Malfunctions

As discussed, *see supra* § II.B.1.c, the EPA imposed a work-practice standard for major and area source boilers during periods of startup and shutdown but declined to make any regulatory modification for malfunctions. *See* 2011 Major Boilers Rule, 76 Fed. Reg. at 15,613; 2011 Area Boilers Rule, 76 Fed. Reg. at 15,560–61. The CISWI Rule, however, makes no modification for *any* of these periods, mandating instead that the numeric MACT standards "apply at all times," even when CISWI units are starting up or shutting down. 2011 CISWI Rule, 76 Fed. Reg. at 15,711, 15,737–38. The Agency concluded that it had no legal authority under section 7429 to impose anything but a numeric MACT standard on CISWI units. *See id*. at 15,709 tbl.1; *see also id*. at 15,737–38.

b. The Record-Keeping Requirement

Whether the EPA considers a combustion unit to be a boiler (and thus subject to section 7412) or a CISWI (and thus subject to section 7429) turns entirely on whether the unit combusts "solid waste." *See id*. at 15,709. The term "solid waste" is defined in RCRA, 42 U.S.C. §§ 6901 *et seq*., and clarified by EPA regulation, *see* Identification of Non-Hazardous Secondary Materials that Are Solid Waste (NHSM Rule), 76 Fed. Reg. 15,456, 15,457 (Mar. 21, 2011). *See also* 2011 CISWI Rule, 76 Fed. Reg. at 15,709. If the unit combusts solid waste, it is a CISWI. *Id*.

The source owner or operator initially decides whether the material its combustion unit burns

meets the definition of solid waste. *See id*. at 15,740. For this reason, the CISWI rule requires that the owner or operator of a combustion unit that burns materials "not clearly listed as traditional fuels" keep records explaining how the materials meet the regulatory definition of "non-solid waste." *Id*.; *see also* 40 C.F.R. § 60.2175(v). Failure to do so means, for the purposes of the EPA, that "the operating unit is a CISWI unit." 40 C.F.R. § 60.2265; *see also* 2013 CISWI Rule, 78 Fed. Reg. at 9,188.

c. Emissions Averaging

During the notice-and-comment period, certain industry entities urged the EPA to allow a facility containing more than one CISWI unit to demonstrate compliance with the CISWI MACT standards by averaging the HAP emissions of all units in the facility. *See* Commercial and Industrial Solid Waste Incineration Units: Reconsideration and Proposed Amendments; Non-Hazardous Secondary Materials that Are Solid Waste (2011 Proposed CISWI Rule on Reconsideration), 76 Fed. Reg. 80,452, 80,463 (Dec. 23, 2011). Although it allowed facility-wide averaging in the Major Boilers Rule, the Agency declined to allow it for facilities with CISWI units. *See id*. The EPA explained, first, that "[t]he applicability of CISWI is such that each unit is an affected facility." *Id*. In response to further comments, the EPA subsequently explained that it did "not believe [it had] the legal authority to allow emissions averaging in CISWI or under section [7429] generally because each individual unit is an affected facility." Summary of Public Comments and Responses for Commercial and Industrial Solid Waste Incineration Units (CISWI Rule—Responses to Comments), EPA-HQ-OAR-2003-0119-2638-A2 (Dec. 2012), at 195.

d. Treatment of Units that Begin Combusting Solid Waste

Finally, in the preamble to the 2011 CISWI Rule, the EPA stated broadly that "[u]nits that begin combusting solid waste are considered *existing* sources under CISWI." 76 Fed. Reg. at 15,714 (emphasis added). This categorical pronouncement drew objections from commentators who insisted that, if such units experienced an increase in HAP emissions, the units would meet the statutory definition of "modified solid waste incineration unit[s]," *see* 42 U.S.C. § 7429(g)(3), and would, accordingly, be subject to the MACT standards for *new* units, *see id*. § 7429(g)(2). In the subsequent proposed CISWI Rule, the EPA clarified that "[a]n existing source will not be considered a new source solely due to a combustion material switch. Assuming new source applicability is not triggered, existing sources that change fuels or materials are considered existing sources . . . ." 2011 Proposed CISWI Rule on Reconsideration, 76 Fed. Reg. at 80,459.

II. STANDARD OF REVIEW

For each issue, the Petitioners argue that the EPA either misinterpreted the CAA, acted arbitrarily and capriciously, or both. We review the EPA's construction of the statute under the two-part framework established in *Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837 (1984). At *Chevron* step 1, we ask whether the Congress "has directly spoken to the precise question at issue"; if it has, we "must give effect to [its] unambiguously expressed intent." *Id*. at 842–43. In so doing, we examine the CAA's text, structure, purpose, and legislative history to determine if the Congress has expressed its intent unambiguously. *See Bell Atl. Tel. Co. v. FCC*, 131 F.3d 1044,

1047 (D.C. Cir. 1997). If the statute is "silent or ambiguous with respect to the specific issue," we proceed to *Chevron* step 2 and defer to the EPA's interpretation so long as it is "based on a permissible construction of the statute." *Chevron*, 467 U.S. at 842–43.

The CAA authorizes the Court to "reverse any [EPA] action found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 42 U.S.C. § 7607(d)(9)(A). Our review is "narrow" and we will "not . . . substitute [our] judgment for that of the agency." *Motor Veh. Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co. (State Farm)*, 463 U.S. 29, 43 (1983). We "must uphold an agency's action where [the agency] 'has considered the relevant factors and articulated a rational connection between the facts found and the choice made,' and has not 'relied on [improper] factors.'" *Nat'l Ass'n of Clean Air Agencies v. EPA (NACAA)*, 489 F.3d 1221, 1228 (D.C. Cir. 2007) (citations omitted) (quoting *Allied Local & Reg'l Mfrs. Caucus v. EPA*, 215 F.3d 61, 68 (D.C. Cir. 2000), and *State Farm*, 463 U.S. at 43). A rule is arbitrary and capricious if the agency: (1) "has relied on factors which Congress has not intended it to consider," (2) "entirely failed to consider an important aspect of the problem," (3) "offered an explanation for its decision that runs counter to the evidence before the agency," or (4) "is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *State Farm*, 463 U.S. at 43.

We review the EPA's factual determinations for substantial evidence. 5 U.S.C. § 706(2)(E). We also "owe[] particular deference to EPA when its rule-makings rest upon matters of scientific and statistical

judgment within [its] sphere of special competence and statutory jurisdiction." *Am. Coke & Coal Chems. Inst. v. EPA*, 452 F.3d 930, 941 (D.C. Cir. 2006). But "[w]e are hesitant to rubber-stamp EPA's invocation of statistics without some explanation of the underlying principles or reasons why its formulas would produce an accurate result." *NACWA*, 734 F.3d at 1145.

III. INDUSTRY PETITIONERS' CHALLENGES

A. STARTUPS, SHUTDOWNS, AND MALFUNCTIONS

Industry Petitioners raise two sets of challenges to startup, shutdown, and malfunction periods: (1) a challenge to the EPA's failure to take malfunctions into account in the Major Boilers and Area Boilers Rules and (2) a challenge to EPA's failure to take into account periods of startup, shutdown, and malfunction in the CISWI Rule. For the reasons that follow, we reject all of the Industry Petitioners' claims related to startups, shutdowns, and malfunctions.

1. Periods of Malfunction in the Major Boilers and Area Boilers Rules

First, Industry Petitioners challenge the Major Boilers and Area Boilers Rules' failure to take malfunctions into account in setting MACT floors. *See* 2011 Major Boilers Rule, 76 Fed. Reg. at 15,613; 2011 Area Boilers Rule, 76 Fed. Reg. at 15,560–61. The EPA defends its refusal to account for malfunctions on the basis of (1) the impracticability of accounting for events that are necessarily unpredictable, and (2) the EPA's assertion that it will use its prosecutorial discretion to determine on a case-by-case basis whether an exceedance of emission standards is attributable to an excusable malfunction or whether applicable regulatory penalties should be

imposed instead. *See* No. 11-1108 EPA Br. 38; No. 11-1141 EPA Br. 29.

Both sides agree that malfunctions are inevitable in the operation of area and major boilers. According to the EPA, "even equipment that is properly designed and maintained can sometimes fail and . . . such failure can sometimes cause an exceedance of the relevant emission standard." 2011 Major Boilers Rule, 76 Fed. Reg. at 15,613; 2011 Area Boilers Rule, 76 Fed. Reg. at 15,561. Thus, the EPA defined a malfunction as a "sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment or a process to operate in a normal or usual manner." 2011 Major Boilers Rule, 76 Fed. Reg. at 15,613 (citing 40 C.F.R. § 63.2); 2011 Area Boilers Rule, 76 Fed. Reg. at 15,560 (same). In attempting to write rules to account for emissions, however, the EPA faced an intractable problem: how to account for a malfunction which is, by definition, unpredictable in terms of timing, duration, magnitude, and effect. While the existence of malfunctions is entirely predictable, the nature of those malfunctions is not, and it is the malfunction's nature that affects emissions and thus is relevant to the application of emission limits.

At first glance, the EPA's chosen approach to malfunctions may seem counterintuitive, as the Agency appears to have several reasonable alternatives: it could exempt periods of malfunction entirely from the application of the emission standards; or it could apply the standards to malfunctions while giving boiler owners the opportunity to defend against a penalty by demonstrating they were not at fault for the malfunction. But the EPA has previ-

ously been stymied in its attempts to implement either of these solutions, as this court has concluded neither approach is consistent with the Agency's enabling statutes. For instance, in *Sierra Club III*, the EPA attempted to exempt major sources from complying with emission standards during start up, shut down, and malfunction. *See* 551 F.3d at 1027–28. This court rejected that approach because the Congress "required that there must be continuous section 112-compliant standards" and so the EPA lacked discretion to exempt certain periods from compliance, regardless of their unpredictability. *Id*. at 1027. In *NRDC III*, this court considered a challenge to the affirmative defense provision the EPA adopted for persons defending against civil suits under 42 U.S.C. § 7604(a), which allows "any person" to "commence a civil action on his own behalf" against any entity alleged to be in violation of an emission standard or limitation. The affirmative defense provision was meant to shield alleged violators from liability for certain emissions violations caused by "unavoidable" malfunctions; under the provision, therefore, "the district court [could] assess penalties only if violators fail[ed] to meet [their] burden of proving all of the requirements in the affirmative defense." *NRDC III*, 749 F.3d at 1062 (internal quotation omitted). The court rejected this provision as an impermissible intrusion on the judiciary's role. *See id*. at 1063 ("[U]nder this statute, deciding whether penalties are 'appropriate' in a given private civil suit is a job for the courts, not for EPA.").

Faced with an obvious dilemma, the EPA arrived at the approach it defends today. Malfunctions receive no special treatment and the EPA instead exercises "its enforcement discretion to address exceedances of

emission limits that may be caused by such uncertain, unpredictable events, on a case-by-case basis." No. 11-1108 EPA Br. 38; *see also* No. 11- 1141 EPA Br. 29. The EPA's current treatment of malfunctions thus differs from its invalid affirmative defense provision because the Agency is exercising its *own* regulatory enforcement power on an ad hoc basis outside the context of citizen suits. When an exceedance occurs during malfunction, the EPA determines what enforcement action—if any—it should take by considering "the good faith efforts of the source to minimize emissions during malfunction periods, including preventative and corrective actions, as well as root cause analyses to ascertain and rectify excess emissions." 2011 Major Boilers Rule, 76 Fed. Reg. at 15,613; *see also* 2011 Area Boilers Rule, 76 Fed. Reg. at 15,561 (same). The EPA also considers whether the exceedance was in fact "not reasonably preventable" or whether it was "caused in part by poor maintenance or careless operation." 2011 Major Boilers Rule, 76 Fed. Reg. at 15,613 (citing 40 C.F.R. § 63.2); *see also* 2011 Area Boilers Rule, 76 Fed. Reg. at 15,561 (same).

For our purposes, we need not (indeed, must not) evaluate the policy implications of the EPA's regulatory choice because our review is confined to determining whether the EPA's regulation reflects a permissible reading of the applicable statute under *Chevron*. Here, we conclude that it does. The relevant statute requires only that the EPA set "achievable" standards, 42 U.S.C. § 7412(d) (2), and it defines achievability to be no less "than the emission control that is achieved in practice by the best controlled similar source," 42 U.S.C. § 7412(d) (3). The "best controlled similar source," however, is unlikely to be a malfunctioning source, and the EPA is bound to

enact a standard in keeping with emission limits achieved by that "best controlled similar source." If anything, then, the statutory language on its face prevents the EPA from taking into account the effect of potential malfunctions when setting MACT emission standards. At the very least, the language permits the EPA to ignore malfunctions in its standard-setting and account for them instead through its regulatory discretion. Our *Sierra Club III* decision confirms this. *See* 551 F.3d at 1027–28. Because the EPA had no option to exclude these unpredictable periods, its approach is reasonable. We therefore reject Industry Petitioners' argument that the EPA either misinterpreted the CAA or acted arbitrarily and capriciously in failing to account for malfunctions when setting MACT floors in the Major and Area Boilers Rules.

Nor do we agree with the Industry Petitioners' secondary argument that the EPA acted arbitrarily and capriciously by failing to set a work-practice or a GACT management-practice standard for malfunction periods. First, the statute makes clear that these kinds of standards are to be set at the discretion of the EPA, so it would be difficult to interpret the statute consistently with its text while holding that the text's *permissive* language in fact sets out a *requirement* that the Agency set work-practice or GACT management-practice standards. As to work-practice standards, "[t]he Administrator may, in lieu [of a numeric standard], promulgate a design, equipment, work practice, or operational standard, or combination thereof," and any such standard set must "in the Administrator's judgment [be] consistent with the provisions of subsection (d)." 42 U.S.C. § 7412(h)(1). As to GACT management-practice standards, "the Administrator may . . . elect to promulgate" such standards with respect to certain

"categories and subcategories of area sources." *Id.* § 7412(d)(5). It should go without saying that "may means may." *McCreary v. Offner*, 172 F.3d 76, 83 (D.C. Cir. 1999) (internal quotations omitted).

Second, the Petitioners have not demonstrated and the EPA does not concede that setting work-practice or GACT management-practice standards would even be feasible for periods of malfunction. As for work-practice standards, the EPA would have to conceive of a standard that could apply equally to the wide range of possible boiler malfunctions, ranging from an explosion to minor mechanical defects. Any possible standard is likely to be hopelessly generic to govern such a wide array of circumstances. Similar problems exist for setting GACT management practices. These management practices would also need to apply to the wide range of possible malfunctions, and the EPA would need to determine that the standard would "reduce emissions of hazardous air pollutants," an evidence-based standard that is difficult (perhaps impossible) to apply to the unpredictable circumstances of malfunctions. 42 U.S.C. § 7412(d)(5). Thus, we reject the Industry Petitioners' argument that the EPA was required to set a work-practice or GACT management-practice standard for malfunction periods.

In doing so, we are mindful that the EPA is not the only entity able to bring enforcement actions under the CAA, but that private citizens are also empowered to enforce emission standards by filing suit in district court. 42 U.S.C. § 7604(a). Assurances that the EPA will use its prosecutorial discretion to account for malfunctions would mean little if private citizens could seek strict enforcement of those same standards. But as we stated in *NRDC III*, "the Judiciary, not

any executive agency, determines 'the scope'—including the available remedies—'of judicial power vested by' statutes establishing private rights of action." 749 F.3d at 1063 (quoting *City of Arlington v. FCC*, 133 S. Ct. 1863, 1871 (2013)). Accordingly, in citizen suits under the CAA, "the courts determine, on a case-by-case basis, whether civil penalties are 'appropriate.'" *Id*. Boiler operators can argue that penalties should not be assessed because of an unavoidable malfunction, and they can support that argument with other relevant facts, "such as the defendant's 'full compliance history and good faith efforts to comply.'" *Id*. (quoting 42 U.S.C. § 7413(e)(1)). The EPA can also provide supporting argumentation as intervenor or amicus. *Id*. Courts should not hesitate to exercise their judicial authority to craft appropriate civil remedies in the case of emissions exceedances caused by unavoidable malfunctions.

2. Periods of Startup, Shutdown, and Malfunction in the CISWI Rule

In the CISWI Rule, the EPA made no modification for periods of startup, shutdown, or malfunction. The Industry Petitioners argue that failing to account for these periods violated the EPA's statutory instruction to set "achievable" standards. Additionally, the Industry Petitioners claim it was arbitrary and capricious for the EPA to set work-practice standards for startup and shutdown periods under the Major Boilers Rule but not under the CISWI Rule. Both arguments are without merit.

First, the EPA's emission standards for small incinerators do take into account periods of shutdown and startup. The EPA based its standards for these machines on "short term stack tests for pollutants," in which incinerators are monitored

during the course of normal operation, which includes daily startup and shutdown periods. *See* 2011 CISWI Rule, 76 Fed. Reg. at 15,738. Thus, startup and shutdown times are already incorporated into the standards the EPA set, and what is more, nearly all pollutants are present in smaller numbers during startup and shutdown anyway, when incinerators are burning fuels alone rather than fuels and solid waste. *See* Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units (2010 Proposed CISWI Rule), 75 Fed. Reg. 31,938, 31,964 (June 4, 2010). Given this reality, the CISWI Rule satisfies the statutory standard of "achievability" and is not arbitrary and capricious.

Second, as to periods of malfunctions, the same analysis applies to the CISWI Rule as applies to the Boilers Rules. The EPA adopted a reasonable interpretation of the CAA when it excluded periods of malfunction from its calculations of achievability given that malfunction periods are by their very nature unpredictable in terms of their effect on emissions. The EPA's decision to account for malfunctions in its discretion is likewise a reasonable interpretation of 42 U.S.C. § 7412(d)(2) and (3).

For these reasons, we reject the Industry Petitioners' challenges to the EPA's regulatory choices with regard to periods of startup, shutdown, and malfunction.

B. THE POLLUTANT-BY-POLLUTANT APPROACH

The EPA must look to the performance of the best major boilers and CISWI incinerators when setting MACT floors for a pollutant. As described above, for new units, the EPA must set floors at the level

achieved by the best similar unit in each subcategory. For existing units, the Agency must set floors at the level achieved by the best 12 per cent of similar units in each subcategory. 42 U.S.C. §§ 7412(d)(3)(A), 7429(a)(2). As a result, the EPA had to identify the best performing units in each subcategory when setting the MACT floors for the Major Boilers and CISWI Rules. But the EPA often could not identify a single unit or set of units that controlled all HAPs better than the other units in the subcategory. Instead, the EPA sometimes found that a unit might rank among the best in its subcategory at controlling emissions of one HAP, but among the worst at controlling emissions of a different HAP.

To address this problem, the EPA adopted a "pollutant-by-pollutant" approach in setting the MACT floors: instead of identifying the unit or units that best controlled *all* HAPs in the aggregate, the EPA used one unit or set of units to set the MACT floor for, *e.g.*, PM, and used a different unit or set of units to set the MACT floor for, *e.g.*, HCl. *See* 2011 Major Boilers Rule, 76 Fed. Reg. at 15,621–23; 2011 CISWI Rule, 76 Fed. Reg. at 15,720-21. For at least two subcategories of major boilers—new heavy oil-fired units and existing stoker coal-fired units—the EPA's pollutant-by-pollutant approach resulted in MACT floors that no unit in the subcategory had achieved *in toto*. Similarly, for small, remote incinerators (SRIs), the approach resulted in standards for existing units that only two of the 28 SRI units had met *in toto*, and standards for new units that no existing SRI had met *in toto*. The Industry Petitioners challenge the EPA's use of the pollutant-by-pollutant approach. According to the Industry Petitioners, the CAA's plain language requires the Agency to identify the best overall unit or set of units—not the best unit

or set of units for a particular pollutant—in each subcategory when setting MACT floors. They further claim the EPA's pollutant-by-pollutant approach was unreasonable with regard to SRIs because it resulted in a set of emission standards that no single unit in the subcategory had achieved in practice. We disagree, and conclude that the EPA's pollutant-by-pollutant approach is a reasonable interpretation and application of the statute.

For the purposes of this challenge, the MACT floor provisions for major boilers and CISWI units are identical. Under both provisions, the EPA must set emission standards for *new* units based on "the emissions control that is achieved in practice by the best controlled similar unit, as determined by the Administrator." 42 U.S.C. § 7429(a)(2) (CISWI); *see also id*. § 7412(d)(3) (major boilers). For existing units, the MACT floor is based on "the average emissions limitation achieved by the best performing 12 percent of units in the category." *Id*. § 7429(a)(2) (CISWI); *see also id*. § 7412(d)(3)(A) (major boilers).

The Industry Petitioners claim this language unambiguously forecloses the EPA's pollutant-by-pollutant approach. For new units, they assert, the statute requires the EPA to find the single unit that performs best overall and use this unit—and only this unit—to set standards for all regulated pollutants. For example, if Incinerator 3 were deemed the best overall performer in a subcategory, then the EPA would use Incinerator 3's emissions levels to set standards for PM, CO, and each of the other regulated pollutants. This would be true even if Incinerator 1 in the same subcategory had lower CO emissions and Incinerator 2 had lower PM emissions. The Industry Petitioners also make this argument

for existing sources. For these units, under their interpretation, the mandate to identify the "best performing 12 percent of units" required the EPA to use data from the 12 per cent of sources with the lowest overall emissions in the subcategory. In short, the Industry Petitioners argue that the best "unit" referred to by the provision cannot be a "hypothetical composite" of multiple units that result in standards for new units that no actual unit has met in practice with regard to every pollutant, or standards for existing units that 12 per cent of actual units have not met with regard to every pollutant.

The Industry Petitioners read too much into the statutory language. It is true that the statute requires the EPA to base MACT standards on what is "achieved" by the best "unit" or "12 percent of units." But, as the EPA argues, the statute says nothing about how the Agency should determine which units are the best. *Cf. Sierra Club v. EPA*, 167 F.3d 658, 661 (D.C. Cir. 1999) (noting that section 7429(a) "on its own says nothing about how the performance of the best units is to be calculated"). Both the industry-favored method of choosing the best overall unit and the EPA's method of choosing the best unit as to each particular pollutant facially comport with the statute's mandate to determine which units are best. Because the statute is ambiguous as to how the EPA should identify those units, we must defer to the Agency's choice so long as it is reasonable. *See Sierra Club I*, 353 F.3d at 990.

Here, the EPA's choice is reasonable. The statute provides that emission standards shall reflect "the maximum degree of reduction in emissions of [regulated pollutants] that the Administrator . . . determines is achievable for new or existing units in

each category." 42 U.S.C. § 7429(a)(2); *see also id.* § 7412(d)(2). It then provides that the "degree of reduction in emissions that is deemed achievable for new units in a category shall not be less stringent than the emissions control that is achieved in practice by the best controlled similar unit, as determined by the Administrator." *Id.* § 7429(a)(2); *see also id.* § 7412(d)(3). Reading these provisions together, they support a pollutant-by-pollutant approach. The "best controlled similar unit" language does not exist in a vacuum; rather, it exists to measure the "degree of reduction in emissions that is deemed achievable." *Id.* § 7429(a)(2); *see also id.* § 7412(d)(3). That "reduction in emissions" is the reduction in emissions of *each* pollutant listed in sections 7429(a)(4) and 7412(b)(1). The EPA's approach to setting standards on a pollutant-by-pollutant basis thus comfortably fits within this statutory scheme.

Moreover, the Industry Petitioners have not explained how their preferred approach would better comport with the statute. Were the EPA required to determine which units perform best "overall," we see at least two possibilities for how it could do so: First, the EPA could calculate a unit's average emissions for each pollutant in consistent units of measurement, add these emissions together, and then choose the unit with the smallest overall sum in each subcategory. But this approach could produce arbitrary results, because the "best performing" overall unit might emit unusually low quantities of some pollutants and unusually high quantities of others. This would mean the emission standards for some pollutants would be lenient while others would be stringent, with no principled reason for the difference. Alternatively, the Agency could identify which source is best

overall based on which emits the lowest level of the riskiest pollutants. But this approach would require the Agency to rank pollutants' relative risks without any congressional guidance on how to do so. This approach would also contravene our previous understanding of the congressional intent behind the MACT floor provisions. As we have explained, the MACT floors "are to be based not on an assessment of the risks posed by [pollutants], but instead on the maximum achievable control technology (MACT) for sources in each category." *Sierra Club I*, 353 F.3d at 980.

The Industry Petitioners nevertheless argue that the CAA's legislative history supports their preferred approach. In particular, they point to the floor comments of Senator Durenberger discussing the potential impact on MACT floors of mutually incompatible control technologies. 136 Cong. Rec. S17,238 (daily ed. Oct. 26, 1990) (statement of Senator Durenberger). Mutually incompatible control technologies cannot be used at the same time and therefore present regulators with a dilemma. For example, say Technology 1 and Technology 2 cannot be used together. If Technology 1 is better at reducing PM than Technology 2, and Technology 2 is better at reducing CO than Technology 1, the EPA would have to choose which of the two technologies to factor into emission standards. In such situations, Senator Durenberger anticipated that the "EPA should judge MACT to be the technology which best benefits human health and the environment on the whole." *Id*. The Industry Petitioners argue this statement demonstrates that Congress intended the EPA to make an overall determination of which units are the best performing "on the whole."

Senator Durenberger's statement does not support this broad principle. The statement merely explains that, where two technologies cannot be used together, the EPA should base MACT standards on the technology it considers best overall. Here, the Industry Petitioners do not identify any relevant control technologies that are mutually incompatible. Indeed, the EPA found in the CISWI Rule that "there is no technical reason why [the] air pollution control systems cannot be combined." 2011 CISWI Rule, 76 Fed. Reg. at 15,721; *see also* 2011 Major Boilers Rule, 76 Fed. Reg. at 15,623 ("All available data for boilers and process heaters indicate that there is no technical problem achieving the floor levels contained in this final rule for each HAP simultaneously, using the MACT floor technology."). There is thus no reason to believe that the EPA's current MACT floor standards cannot be achieved. Instead, the Industry Petitioners merely insist that no units *currently* meet the EPA's new unit standards with regard to every regulated pollutant in certain subcategories, and only a few sources meet all of the standards for existing units in the same subcategories. But, if the statute permits the EPA to determine which units are best on a pollutant-by-pollutant basis—and it does—then the EPA's choice to adopt that approach does not become unlawful merely because few or no units have achieved those standards for all pollutants.

Finally, the Industry Petitioners argue that even if the pollutant-by-pollutant approach is reasonable in some circumstances, it is arbitrary and capricious as applied to certain SRIs because it exacerbates certain problems posed by the "batch" nature of SRIs. As explained at *infra* § III.E, SRIs burn waste in small batches. According to the Petitioners, this means that the SRIs that the EPA identified as best

performing were, in reality, burning cleaner waste at the time emissions testing was done; they were not actually better than other units at removing or destroying waste. The pollutant-by-pollutant approach, the Industry Petitioners argue, "simply captures the results from units that happened to be burning wastes with low levels of that particular pollutant during testing," and this reality makes it harder for SRI units to meet emission standards for all pollutants at the same time. No. 11-1125 Indus. Pet'rs' Reply Br. 8 (emphasis omitted).

This argument fails because the Industry Petitioners have not demonstrated that the Agency considered impermissible factors, failed "to consider important aspect[s] of the problem," or offered an unreasonable explanation for its decision when setting the MACT floors for SRIs. *See State Farm*, 463 U.S. at 43. Rather, their argument is a back-door attempt to challenge the Agency's alleged failure to consider waste inputs, which we reject below at *infra* § III.E. Petitioners have also not shown that it is infeasible for the SRI units to meet the MACT floor standards or that any individual pollutant standard was not achieved in practice by an existing SRI unit. They merely assert, without evidence, that no existing unit burning high sulfur garbage can match the SO_2 performance achieved by the unit the EPA used to set SO_2 standards because that latter unit was burning low sulfur waste at the time of the emissions testing. But MACT floors are not unreasonable simply because they are difficult to achieve in practice. As such, we find the EPA's pollutant-by-pollutant approach to be a reasonable interpretation and application of the statute, and deny the Industry Petitioners' challenge to the EPA's use of this approach.

C. THE ENERGY-ASSESSMENT REQUIREMENT

The Major Boilers Rule and the Area Boilers Rule generally require sources with existing boilers to perform a one-time energy assessment. In the assessment, facilities must "identify energy conservation measures"—such as "process changes or other modifications to the facility"—"that can be implemented to reduce the facility energy demand," thereby "reduc[ing] fuel use." 2011 Area Boilers Rule, 76 Fed. Reg. at 15,573; *see also* 2011 Major Boilers Rule, 76 Fed. Reg. at 15,632. While facilities must conduct the assessment, they need not implement its conclusions. *See* 2011 Area Boilers Rule, 76 Fed. Reg. at 15,573; 2011 Major Boilers Rule, 76 Fed. Reg. at 15,632.

The logic behind the assessment is straight-forward. Boilers produce HAP emissions when fuel is combusted. Less combustion means fewer emissions. The EPA primarily justified the assessment as a beyond-the-floor MACT requirement under section 7412(d)(2). *See* 2011 Area Boilers Rule, 76 Fed. Reg. at 15,573; 2011 Major Boilers Rule, 76 Fed. Reg. at 15,632. With respect to certain biomass and oil-fired boilers located at area sources, the assessment was justified as a GACT management practice under section 7412(d)(5). *See* 2011 Area Boilers Rule, 76 Fed. Reg. at 15,567.

Industry Petitioners raise three principal challenges to the energy-assessment requirement, none of which have purchase. The first challenge claims that the energy assessment regulates aspects of facilities that are off limits to the EPA—namely, the energy needs supplied by regulated boilers. Petitioners point to the language of the CAA, which requires the EPA to "list . . . categories and

subcategories of major sources and area sources" of enumerated air pollutants. 42 U.S.C. § 7412(c)(1). "For the categories and subcategories the Administrator lists, the Administrator" must set "emissions standards under" section 7412(d). *Id.* § 7412(c)(2). As relevant here, the EPA defined the source categories to include "industrial boilers and commercial and institutional boilers." 2011 Area Boilers Rule, 76 Fed. Reg. at 15,557; 2011 Major Boilers Rule, 76 Fed. Reg. at 15,608. To the extent the assessment concerns parts of the facility other than the boiler itself, the Industry Petitioners claim it exceeds the EPA's authority.

The Industry Petitioners misapprehend both the scope of the assessment and the CAA. The assessment requires facilities to evaluate energy systems "located on the site of the affected boiler," including "[p]rocess heating[,] compressed air systems[,] . . . facility heating, ventilation, and air conditioning systems," and "[o]ther systems that use steam, hot water, process heat, or electricity, provided by the affected boiler." 40 C.F.R. § 63.11237; *see id.* § 63.7575. Based on that evaluation, facilities must compile a "comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, [anticipated] benefits, and the time frame for recouping those investments." 40 C.F.R. pt. 63, subpt. JJJJJJ tbl.2; id. pt. 63, subpt. DDDDD tbl.3.

Contrary to the Industry Petitioners' argument, the EPA has not "regulate[d] virtually every piece of equipment at all affected facilities." No. 11-1141 Indus. Pet'rs' Br. 19. Only "energy use systems" that "us[e] energy clearly produced by affected boilers" must be evaluated; facilities need not review the

"total aggregation of all individual energy using segments of a facility." 2013 Area Boilers Rule, 78 Fed. Reg. at 7,493 (emphasis added); *see also* 2013 Major Boilers Rule, 78 Fed. Reg. at 7,188. The assessment focuses on "discrete segments of a facility," such as "production area[s] or building[s]" associated with a particular boiler. 2013 Area Boilers Rule, 78 Fed. Reg. at 7,493; *see* 2013 Major Boilers Rule, 78 Fed. Reg. at 7,188. Energy requirements satisfied by other sources—not by a HAP-emitting boiler—fall outside of that mandate. *See* 2011 Area Boilers Rule, 76 Fed. Reg. at 15,573 (limiting the assessment to "specific portions of the source that directly affect emissions from the affected boiler"). And regulated facilities are under no obligation to implement the results they reach. In essence, rather than setting inflexible and generally applicable beyond-the-floor numeric limits, the EPA required facilities to take stock of the actual energy demands placed on their boilers. By reducing energy demands and associated fuel consumption, facilities could reduce HAP emissions. That requirement is more measured than the Industry Petitioners contend.

And that measured requirement falls within the EPA's statutory authority. The CAA authorizes the EPA to regulate "major sources and area sources" of HAPs, and to subdivide those sources into categories and subcategories. 42 U.S.C. § 7412(c)(1), (c)(2). To Industry Petitioners, the authority to subdivide sources means the EPA may only regulate the narrowest applicable categorization—in this instance, commercial and industrial boilers. But the statute does not require so rigid a reading. While the EPA is permitted to subdivide sources, each subdivision remains a component of either a major or area "source." Dividing sources into categories and

subcategories does not make them any less of a "source" subject to the EPA's regulation.

For that reason, the EPA explained that the Rules reach, respectively, "[a]ny area source *facility* using a boiler," 2011 Area Boilers Rule, 76 Fed. Reg. at 15,555 (emphasis added), and "major source *facilities* having affected boilers or process heaters," 2011 Major Boilers Rule, 76 Fed. Reg. at 15,613 (emphasis added). Likewise, the regulations implementing the energy assessment requirement apply to those who "own or operate an existing affected boiler," not merely to the boiler itself. 40 C.F.R. § 63.11214(c); *see id*. § 63.7485. Going further, the relevant part of the CFR applies, by its own terms, to the "owner or operator of any stationary source." *Id*. § 63.1(b)(1).

The Congress's definition of the terms major and area source supports this reading. At bottom, both terms refer to a "stationary source." *See* 42 U.S.C. § 7412(a)(1), (a)(2). Stationary source, in turn, means "any building, structure, facility, or installation which emits or may emit any air pollutant." *Id*. § 7411(a)(3). Against that backdrop, the Rules apply to any "building, structure, facility, or installation" that contains a boiler emitting the specified HAPs. The EPA's regulatory authority reaches the relevant stationary source, of which the boiler is part.

That the EPA may regulate stationary sources does not mean it may regulate every nook and cranny of those sources. The CAA directs its authority to the establishment of emission standards; it does not provide some general power to superintend the business processes of plants and manufacturing facilities. In this case, however, we have no occasion to parse the precise parameters of

the EPA's authority to regulate aspects of area sources. It is enough to conclude that the challenged energy assessment—which applies only to systems that "us[e] energy clearly produced by affected boilers"—falls within the EPA's authority under the CAA. 2013 Area Boilers Rule, 78 Fed. Reg. at 7,493; 2013 Major Boilers Rule, 78 Fed. Reg. at 7,188.

In the remaining two challenges, the Industry Petitioners take issue with the EPA's justification of the energy assessment as a beyond-the-floor MACT standard and a GACT management-practice standard. We reject both challenges.

The assessment represents a valid beyond-the-floor MACT standard.[13] As discussed, after the Agency sets the MACT floor, it must determine "whether stricter standards are 'achievable,'" *Nat'l Lime Ass'n*, 233 F.3d at 629 (quoting 42 U.S.C. § 7412(d)(2)), considering costs, "any non-air quality health and environmental impacts and energy requirements," 42 US.C. § 7412(d)(2). These "measures, processes, methods, systems or techniques includ[e], but [are] not limited to, measures which—

> (A) reduce the volume of, or eliminate emissions of, such pollutants through process changes, substitution of materials or other modifications, . . .

---

[13] In addition to challenging the assessment as a beyond-the-floor measure, the Industry Petitioners claim the assessment represents an invalid work-practice standard. But "[t]he energy assessment is not . . . a work practice standard, and EPA makes no claim that it is." No. 11-1141 EPA Br. 47 n.9. Therefore, we decline to address that contention.

(D) are design, equipment, work practice, or operational standards . . . or

(E) are a combination of the above.

Id. The EPA primarily justified the energy assessment as a beyond-the-floor measure designed to identify "process changes or other modifications to the facility" that would reduce fuel use and thereby reduce hazardous emissions. 2011 Area Boilers Rule, 76 Fed. Reg. at 15,573; 2011 Major Boilers Rule, 76 Fed. Reg. at 15,632.

The Industry Petitioners argue that the EPA skipped a step, imposing the energy assessment as a beyond-the-floor measure without first setting a relevant MACT floor. That is incorrect. The EPA first set a numeric MACT emissions limit for the categories and subcategories of sources subject to the energy assessment. *See* 40 C.F.R. pt. 63, subpt. JJJJJJ tbl.1; *id*. pt. 63, subpt. DDDDD tbl.2. The energy assessment represents a step beyond that—a measure designed to discover energy efficiencies that, once implemented, could decrease emissions below the floor level.

Before setting a beyond-the-floor measure, the EPA must consider whether it is "achievable" based on a number of factors, among them cost, "non-air quality health and environmental impacts and energy requirements." 42 US.C. § 7412(d)(2). The EPA did so here. To begin, the EPA adequately considered costs. In the EPA's estimation, "[t]he one-time cost of an energy assessment ranges from $2500 to $55,000 depending on the size of the facility." 2010 Proposed Area Boilers Rule, 75 Fed. Reg. at 31,907; National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial,

Commercial, and Institutional Boilers and Process Heaters (2010 Proposed Major Boilers Rule), 75 Fed. Reg. 32,006, 32,026 (June 4, 2010). Because saving fuel saves money, common sense suggested that sources would often find the energy assessment "cost-effective" to implement. 2011 Area Boilers Rule, 76 Fed. Reg. at 15,568 ("By definition, any emission reduction [achieved as a result of the energy assessment] would be cost effective or else it would not be implemented."); *see also* 2011 Major Boilers Rule, 76 Fed. Reg. at 15,633.

In addition to costs, the EPA considered non-air quality health and environmental impacts in general terms, concluding that "improving energy efficiency reduces negative impacts on the environment." 2010 Proposed Area Boilers Rule, 75 Fed. Reg. at 31,907; 2010 Proposed Major Boilers Rule, 75 Fed. Reg. at 32,026. Given the nature of the assessment, the EPA's somewhat terse analysis of health and environmental impacts suffices. Performing the assessment involves rudimentary tasks—examining the boiler and associated energy systems and drafting a report—that do not impose meaningful health or environmental impacts. The same holds for the EPA's consideration of energy use requirements. Facilities would expend very little energy in conducting the one-time assessment, and could conserve energy by implementing the results. The assessment therefore represents a lawful beyond-the-floor measure.

We also find that the assessment is a valid GACT management practice. With respect to area sources, the EPA has discretion to require the use of "generally available control technologies or management practices . . . to reduce emissions of

hazardous air pollutants." 42 U.S.C. § 7412(d)(5). The EPA justified the energy assessment as a GACT management practice for oil- and biomass-fired boilers. See 2011 Area Boilers Rule, 76 Fed. Reg. at 15,567.

The Industry Petitioners challenge that justification, claiming the energy assessment—which does not require implementation—cannot "reduce emissions of hazardous air pollutants." 42 U.S.C. § 7412(d)(5). We disagree. The EPA did not need to make implementation mandatory to make the assessment lawful. Under the CAA, the EPA may sometimes act with a soft touch, rather than a firm hand. Here, the EPA selected a soft touch, requiring an assessment but not implementation. It was not unreasonable for the EPA to conclude, "after considering the structure of the requirement, the incentives it presents, and the likely behavior of sources, . . . that sources will find it cost-effective to implement the conservation measures identified in the energy assessment." 2011 Area Boilers Rule, 76 Fed. Reg. at 15,573. If the results were implemented, HAP emissions would be reduced. For present purposes, that is enough.

For those reasons, we reject the Industry Petitioners' challenges to the energy-assessment requirement.

D. RECORDKEEPING REQUIREMENT FOR CISWI UNITS

Section 7429 regulates combustion units that burn solid waste; units that do not burn solid waste will generally be regulated under section 7412. RCRA defines the term "solid waste" to mean (in part) "discarded material . . . resulting from

industrial [or] commercial . . . operations." 42 U.S.C. § 6903(27); see id. § 7429(g)(6) (directing that "solid waste" carry "the meanings established by the Administrator pursuant to" RCRA). On the same day the EPA issued a rule setting emission standards for CISWI, it issued a separate rule fleshing out the meaning of solid waste in the context of combustion units. *See* NHSM Rule, 76 Fed. Reg. at 15,456.

The NHSM Rule generally provides that "non-hazardous secondary materials that are combusted are solid wastes,"[14] subject to several exceptions and exemptions. 40 C.F.R. § 241.3(a). Among the exceptions, non-hazardous secondary materials that meet certain "legitimacy" criteria do not qualify as solid waste. *See id*. § 241.3(b), (d). Source owners and operators may also seek a finding from the EPA that particular materials do not constitute solid waste when combusted by a third party. *Id*. § 241.3(c). And the rule exempts altogether a variety of materials from the definition of solid waste, including "traditional fuels." *Id*. § 241.2.

The NHSM Rule is self-implementing: each source owner or operator must determine whether combusted materials meet the definition of solid waste. *See* 2011 CISWI Rule, 76 Fed. Reg. at 15,740. To ensure that owners and operators "review and apply" the NHSM Rule and its exceptions, the EPA issued strict recordkeeping requirements. *Id*. Owners and operators who determine the secondary materials they combust are not solid waste must

---

[14] The NHSM Rule defines non-hazardous secondary material to "mean[] a secondary material that, when discarded, would not be identified as a hazardous waste." 40 C.F.R. § 241.2.

"keep a record" justifying that decision. 40 C.F.R. § 60.2175(v). Failing to file records carries consequences. For units combusting discarded material other than traditional fuels, the failure to "keep and produce records" results in the determination that "the operating unit is a CISWI unit." *Id*. §§ 60.2265, 60.2875 (containing an identical provision).

Industry Petitioners challenge this last provision of the CISWI Rule.[15] They argue that the EPA cannot automatically treat units that fail to keep certain paperwork as CISWI units. Section 7429 permits regulation of "solid waste incineration units"—not units whose owners fail to file paperwork. As a result, the Industry Petitioners ask this court to invalidate the regulatory provision as exceeding the EPA's statutory authority.[16]

We decline the invitation. At *Chevron*'s first step, we find that "Congress did not speak directly, let alone clearly, to this issue." *Am. Chem. Council v. EPA*, 337 F.3d 1060, 1064 (D.C. Cir. 2003). Section 7429 regulates "solid waste incineration units," a phrase that Congress defined "plainly and broadly to include 'a distinct operating unit of any facility which

---

[15] In their reply brief, the Industry Petitioners clarify that they do not challenge the EPA's authority to require sources to keep records.

[16] The Industry Petitioners also argue the EPA arbitrarily failed to provide sufficient notice of the recordkeeping presumption. We disagree. The Industry Petitioners had sufficient notice of the CISWI Rule, which was promulgated after notice and comment and "give[s] fair warning of the conduct it prohibits." *Gen. Elec. Co. v. EPA*, 53 F.3d 1324, 1328 (D.C. Cir. 1995) (quoting *Gates & Fox Co. v. OSHRC*, 790 F.2d 154, 156 (D.C. Cir. 1986)).

combusts any solid waste material from commercial or industrial establishments or the general public.'" *NRDC I*, 489 F.3d at 1257 (emphasis omitted) (quoting 42 U.S.C. § 7429(g)(1)). In *NRDC I*, we vacated an earlier iteration of the CISWI Rule that narrowed the scope of that definition beyond what its language would bear. *See id*. at 1257–58. When the Congress commanded the EPA to regulate units that burn "any" solid waste, the Congress meant what it said. *See id*.

In this case, the EPA included within the revised CISWI Rule a presumption designed to enforce the Congress's command. Section 7429 nowhere addresses whether the EPA may establish presumptions to ensure its regulations reach all sources burning solid waste. At the same time, the Congress plainly intended the EPA to regulate sources burning "any" solid waste, a goal presumably advanced by the recordkeeping presumption. See id. Against that backdrop, we cannot conclude that the presumption offends the text or purpose of section 7429.

Moving to *Chevron*'s second step, we conclude the recordkeeping presumption is reasonable. In *American Chemistry Council*, we upheld a regulation issued under RCRA defining hazardous waste to include any mixture or derivative of hazardous substances. *See* 337 F.3d at 1064–65. "[B]ecause many mixtures of and derivatives from hazardous wastes are themselves hazardous, it [was] reasonable for the EPA to assume that all such mixtures and derivatives are hazardous until shown otherwise." *Id*. at 1065. In that context, it made good sense for the EPA to "[p]lac[e] the burden upon the

regulated entity" to show that a given substance lacked "hazardous characteristic[s]." *Id*.

Similar reasoning applies here. The EPA crafted the presumption to reach sources likely to be burning solid waste, namely, those burning discarded materials other than traditional fuels. *See* 42 U.S.C. § 6903(27) (defining "solid waste" to include, among other things, "discarded material"); 40 C.F.R. § 241.2 (exempting traditional fuels, defined as "materials that are produced as fuels . . . that have not been discarded," from the definition of solid waste). Such sources are subject to strict recordkeeping requirements. *See* 40 C.F.R. § 60.2175(v). Within those confines, placing the burden on unit operators who have the mandatory obligation and the information to establish their non-regulable status is reasonable. *Cf. Am. Chem. Council*, 337 F.3d at 1065.

There is, however, a difference between the presumption in this case and the one we upheld in *American Chemistry Council*. The CISWI record-keeping presumption appears to turn on the failure to file paperwork, rather than the presence of a regulated substance. However broadly the Congress defined "solid waste incineration unit" in section 7429, the Congress did not allow for the regulation of non-waste burning sources—even when those sources fail to file paperwork. Indeed, had the EPA attempted to regulate sources based purely on a failure to file paperwork, we may well have reached a different conclusion.

But the CISWI presumption does not stretch so far. As explained, the presumption depends on factors beyond the mere failure to keep records. Sources subject to the presumption burn materials likely to qualify as solid waste, EPA acted reasonably

when it presumed such sources were burning solid waste.

Despite the provision's narrow reach, the Industry Petitioners fear it will sweep up sources not burning solid waste. To the extent that possibility exists, sources wrongfully regulated as CISWI have multiple forms of recourse. Most obviously, sources can prepare and file the records they were already required to make under 40 C.F.R. § 60.2175(v). They can also avail themselves of procedures designed to identify non-waste materials in 40 C.F.R. § 241.3. The existence of these safety valves calms concerns that the presumption will regulate non-waste burning sources.

We therefore reject the Industry Petitioners' challenges to the recordkeeping presumption.[17]

E. WASTE-STREAM VARIANCE FOR SRI UNITS

The EPA regulated SRIs as a subcategory in the CISWI Rule. *See* Memorandum from Eastern Research Group, Inc., to Toni Jones, U.S. Environmental Protection Agency, CISWI Emission Limit Calculations for Existing and New Sources for the Reconsideration Final Rule (Jones Mem.) (Nov. 16, 2012) (No. 11-1125 J.A. 1159, 1162). There are 28 SRI units, all of which are located in Alaska, and the

---

[17] The Industry Petitioners also contend that the CISWI Rule functions as a form of injunctive relief in violation of 42 U.S.C. § 7413(a). That is incorrect. The provision is neither styled nor operated as a form of injunctive relief. *Cf.* 42 U.S.C. § 7413(a) (permitting the Administrator to issue, among other forms of relief, "an administrative penalty order" or "an order requiring [a person in violation of EPA regulations] to comply with such requirement or prohibition").

EPA had emissions data for nine of them. *Id*. As explained *supra* § I.B.3, the EPA used the pollutant-by-pollutant approach to establish MACT emission standards for these units. For new-unit standards, the EPA determined which of the nine units had the lowest emissions for a particular pollutant and set the MACT floor for that pollutant at the level achieved by the identified unit. *See* 42 U.S.C. § 7429(a)(2) (explaining that MACT floors for new units must be set at "the emissions control that is achieved in practice by the best controlled similar unit"). When setting MACT floors for existing units, the EPA had to calculate the average level of emissions achieved by the best performing 12 per cent of units. *See id*. It therefore determined which four sources had the lowest emissions for a given pollutant and set the emissions standard for that pollutant at the average level achieved by those four units.

The Industry Petitioners argue that the EPA's approach was unlawful because it failed to account for the unique role that waste inputs play in emissions from SRIs. Unlike larger incinerators, SRIs burn small batches of waste at a time. Some batches include cleaner waste, such as wood and cardboard, while others include waste, such as sewage, that generates large quantities of SO2 and other pollutants. Moreover, existing SRIs cannot use certain "end-of-stack" control technologies like wet scrubbers due to the Alaskan climate. The Industry Petitioners thus contend that emissions from SRIs are more closely tied to waste input than are emissions from other types of incinerators. This difference, they assert, required the EPA to take into account, when determining which SRI units were best performing for MACT floor purposes, the kind of

waste an SRI unit was burning at the time of testing. Because the Agency did not do so, the Industry Petitioners contend the MACT standards for SRIs are arbitrary and capricious. We disagree.

To support their challenge, the Industry Petitioners advance two arguments, neither of which has merit. Petitioners first point to section 7429(a)(3), which directs the EPA to base emission standards on "methods and technologies for removal or destruction of pollutants before, during, or after combustion." 42 U.S.C. § 7429(a)(3). According to the Industry Petitioners, this language requires the EPA to identify best performing units for MACT purposes by considering which units are best at removing or destroying pollutants. The Industry Petitioners assert that the Agency did not do this. Instead, they contend, the EPA set standards without regard to whether that unit happened to be burning cleaner waste. And, according to the Industry Petitioners, remote incinerators in Alaska cannot control their waste inputs because the core purpose of SRIs is to burn waste that is impracticably far from municipal landfills. The fact that emissions levels varied dramatically during test runs for the SRI units, they claim, is thus the result of random variance in the type of waste the unit was combusting, rather than any "method" or "technology" aimed at "removing" or "destroying" pollutants.

The EPA responds that the approach it adopted for SRIs complies with section 7429(a)(3) because "waste segregation"—that is, diverting dirtier waste to landfills and burning only cleaner waste—is a "method . . . for removal . . . of pollutants before . . . combustion." *See* 42 U.S.C. § 7429(a)(3). In fact, during notice and comment, the EPA estimated that

many SRIs would choose to comply with the MACT standards by segregating their waste instead of by installing expensive control technologies. *See* Jones Mem. The Agency also determined that waste segregation was possible for SRIs because their waste often contained materials that could be recycled. *Id*. Finally, the Agency factored in any additional variance in emissions from these units by calculating the MACT floors according to the UPL formula described at *supra* §§ I.B.1.a, IV.C. For these reasons, the Agency contends, it did not need to consider further any variation in emissions that might be caused by differences in waste inputs for SRIs.

The EPA has the better argument, based on both text and precedent. Textually, waste segregation plainly can be a "method[]" for "removal" of pollutants "before" combustion. *See* 42 U.S.C. § 7429(a)(3). Accordingly, the EPA, when setting MACT floors, could not have looked solely to technologies used to reduce emissions during combustion. *Accord Sierra Club v. EPA (Sierra Club II)*, 479 F.3d 875, 883 (D.C. Cir. 2007) (per curiam). Instead, the plain language of section 7429(a)(3) requires the Agency to consider whether emission reductions can be achieved by non-combustion-related controls such as using cleaner fuels or waste inputs. *Accord id*. The statute supports the approach that the Agency took here.

Our holding in *Sierra Club II* confirms that our conclusion is correct. In that case, the EPA had acknowledged that kilns emitted lower levels of pollutants when burning cleaner clay but nevertheless based MACT standards only on the emission reductions achieved by control technology

during the combustion process. *Id*. at 882. The Agency explained that clean clay existed only in certain areas and that transportation of the clay over long distances was impractical. *Id*. The EPA therefore considered only those emission reductions that were attributable to "deliberate steps kiln operators [took] to reduce emissions rather than to the 'happenstance' of being located near cleaner clay." *Id*. at 883. But we rejected that approach, finding that "the Clean Air Act requires neither an intentional action nor a deliberate strategy to reduce emissions." *Id*. Instead, where "nontechnology factors" affect emission levels, we held the EPA must consider those effects when setting MACT floors. *Id*.

Applying that same reasoning, the EPA acted reasonably when it decided to consider the emissions reduction that could be achieved by waste segregation in SRI units before combustion. This is true even if an element of "happenstance" plays into an SRI unit's ability to segregate its waste. And, had the EPA instead determined that the best performers were those SRI units that most effectively reduced pollutants only *during combustion*, as the Industry Petitioners suggest, the resulting MACT standards may have run afoul of our holding in *Sierra Club II*. We cannot, as a result, find the Agency's choice to avoid that outcome unreasonable.

The Industry Petitioners' second argument also comes up short. According to Petitioners, the EPA selected the best performers for SRIs merely because those units happened to be burning batches of cleaner waste at the time of the emissions test. They claim this happenstance resulted in test data that did not reasonably estimate the typical performance of the units, and thus misidentified the best

performers. *See* Cement Kiln, 255 F.3d at 862 (finding that although the EPA has authority to estimate which units perform best, its methodology must "provide[] an accurate picture of the relevant sources' actual performance"). Petitioners further argue that the Agency's use of the UPL method to account for variability did not fix this problem because the EPA applies that method only *after* identifying the best performers.

If the record supported this argument, it might well be persuasive; in *NACWA*, we accepted a similar contention that the EPA's dataset for determining MACT floors must fairly represent a unit's typical performance. *See* 734 F.3d at 1146. But the record here does not support the Industry Petitioners' position. None of the evidence on which Petitioners rely can bear the weight they would have us place on it.

First, Petitioners cite evidence indicating that XTO Energy, which operates the incinerator that the EPA deemed the best performer for SO_2, was burning low-sulfur "waste wood, cardboard, and oily waste" during the relevant test runs. *See* ConocoPhillips Co., Comment on EPA's Proposed National Emission Standards for Hazardous Air Pollutants, EPA-HQ-OAR-2003-0119 (Feb. 12, 2012) (No. 11-1125 J.A. 1036). But the record does not show that the resulting test data were unrepresentative of XTO's typical performance because the record says nothing about what XTO typically burns. *Id*.

Second, Petitioners note that Drift River, the unit the EPA deemed the worst performer for SO_2, had emissions results similar to XTO Energy's when burning low-sulfur waste, but results over 1,000 times higher when burning high-sulfur waste. *See id*.

(No. 11-1125 J.A. 1032-33). But again, the record does not say anything about the type of waste Drift River typically burns or its sulfur content; it merely demonstrates that the unit's test results varied greatly from one run to the next. *See id*.

Third, Petitioners point to additional test data they provided for the Kuparuk unit, a source that met the EPA's MACT standards for NOx. *See id*. (No. 11-1125 J.A. 1017, 1027-28). They claim this data shows that the Kuparuk unit "consistently" emits NO_x levels exceeding that standard when burning sewage sludge. *Id*. This claim is both factually untrue—as the data reveals exceedances on only one day—and says nothing about whether the test data that the EPA used was representative of Kuparuk's typical performance. *Id*.

Instead, the record supports the EPA's assertion that it gave Petitioners "multiple opportunities" to present data on the variability of waste streams for SRIs, but Petitioners never provided a reasonable empirical basis upon which the Agency could adjust the MACT standards due to this variability. The Industry Petitioners have thus not met their burden to show that the EPA's test data was unrepresentative of SRI units' actual or typical performance.

In sum, no record evidence suggests that the current SRI emission standards are not achievable. The Industry Petitioners instead offer only general statements about the "small batch" nature of SRIs and the difficulty of using waste segregation or other controls in remote locations. These factors alone do not call into question the EPA's assertion that controls such as waste segregation and technology upgrades are a feasible means of achieving compliance with the MACT floors that it established.

See 2011 CISWI Rule, 76 Fed. Reg. at 15,730 (explaining that the MACT floors will require SRIs to employ "the best demonstrated technologies that are technologically feasible at these facilities," such as afterburners and waste segregation, and noting that such controls "are sufficient to meet the MACT floor limits"). As a result, the EPA's action here was reasonable; the Agency did not need to account further for waste stream variance in setting MACT floor standards for these SRI units.

F. CARBON MONOXIDE AS A SURROGATE

In setting MACT standards for major boilers, the EPA used carbon monoxide (CO) as a surrogate for several of the HAPs that the Agency was required to regulate. A surrogate is another chemical that stands in as a proxy for the regulated HAP when the EPA sets numeric emission standards. The EPA regulates the surrogate in order to regulate the HAP, sometimes because the HAP itself is too difficult to measure.

We have previously approved the use of surrogates where the EPA's choice of a surrogate for the HAP is "reasonable." *See, e.g., Nat'l Lime Ass'n*, 233 F.3d at 637. Here, the Industry Petitioners claim the EPA's use of CO as a surrogate was not reasonable for a particular type of emissions—organic HAP emissions from coal-fired boilers—for two reasons. First, the EPA based the MACT standards on datasets that contained numerous "non-detects" for these organic HAPs. Second, the Agency failed to explain why it used CO as a surrogate for major boilers, but used work-practice standards to regulate similar emissions from other types of boilers in another rule. We find no merit in

either argument and, accordingly, deny this challenge.

The Industry Petitioners base their first argument on a deficiency in the EPA's dataset for coal-fired boilers' emissions—*i.e.*, the dataset contained numerous "non-detects" for organic HAP emissions. A test result is considered a "non-detect" when emissions testing returns a value below that which the test methods are capable of detecting. According to the Industry Petitioners, multiple non-detects in a dataset demonstrate that it is "not feasible" to set a numeric emission standard for the affected HAP. As a result, they argue, the EPA should have set work-practice standards for these HAPs under section 7412(h)(2), which permits the EPA to set such standards when it is "not feasible" to set a numeric emission standard. *See* 42 U.S.C. § 7412(h)(2).

This argument fails because Petitioners have not explained how the non-detects here made setting numeric emissions "not feasible," as that term is defined in the CAA. The CAA expresses a clear preference for MACT emission standards and limits the EPA's ability to fashion more flexible work-practice standards. *Compare id.* § 7412(d)(3) (providing that emission standards "shall not be less stringent" than the MACT floor), *with id.* § 7412(h)(1) (permitting work-practice standards only if MACT standards are "not feasible"). To set a work-practice standard for these emissions, in fact, the EPA would need to find that it is *infeasible* to set a numeric standard for a particular HAP. *Id.* § 7412(h)(1). And, as relevant here, the statute defines setting a numeric standard as "not feasible" where "the application of measurement methodology

to a particular class of sources is not practicable due to technological and economic limitations." *Id.* § 7412(h)(2)(B).

This is a high bar and Petitioners have not demonstrated that the non-detects they have identified meet it. During notice and comment, the Agency reasonably explained that non-detects are present in many of its datasets because they are inherent to the imprecision associated with measuring boiler emissions. *See, e.g.*, 2011 Major Boilers Rule, 76 Fed. Reg. at 15,623. The EPA's scientific conclusion that its data was nevertheless sufficient to set numeric standards receives an "extreme degree of deference." *Kennecott Greens Creek Mining Co. v. Mine Safety & Health Admin.*, 476 F.3d 946, 954–55 (D.C. Cir. 2007) (quotations omitted). And the Industry Petitioners never explain here why the particular level of non-detects found in *this* dataset nevertheless made a numeric standard infeasible. Although the Industry Petitioners point to several comments asserting that no coal-fired boiler could meet the current numeric standards in all HAP categories, these general comments say nothing about the relevant question under the statute: whether it was feasible to establish numeric standards for organic HAP emissions in light of the non-detects in the coal-fired boiler datasets.

We also reject the Industry Petitioners' second argument that the EPA needed to explain why it established work-practice standards for other types of boilers in the unrelated "Utility MATS" rule. We take an "every tub on its own bottom" approach to the EPA's setting of emission standards pursuant to the CAA. *Sierra Club I*, 353 F.3d at 986. The adequacy of the underlying justification offered by

the Agency is what matters in an arbitrary-and-capricious review—not what the Agency did on a different record concerning a different industry. *Id*. As a result, we cannot find that it was unreasonable for the EPA to use CO as a surrogate in setting numeric standards for coal-fired boilers on this basis. Nor can we find that the EPA was required on reconsideration to explain the discrepancy between its approach to organic HAP emissions in these two rules, as Petitioners assert. *See id*. at 987 ("EPA could have noted where the bases for its decision in this case differed from those with respect to other decisions in other cases, as was done in the EPA's brief to this court . . . but such explanations are not required given the different contexts of the various rulemakings.").

G. HEALTH-BASED EMISSIONS LIMITATION FOR HCL

In the Major Boiler Rule, the EPA chose not to exercise its discretion to create more lenient emission standards for hydrogen chloride (HCl) based on health. The Industry Petitioners challenge this decision as arbitrary and capricious because, they claim, the Agency considered impermissible factors in reaching the decision and departed from its previous position without adequate justification. We disagree and hold the EPA reasonably chose not to establish a health-based emissions limitation for HCl.

The EPA generally must establish emission standards for all listed pollutants emitted from a source category based on what the best performing similar sources have achieved, *i.e.*, the MACT floor. The Agency, however, may consider adopting alternative health-based emission standards—which are more lenient—for pollutants with an established

health threshold. *See* 42 U.S.C. § 7412(d)(4). The statutory language permitting these alternative standards is discretionary, providing that "[w]ith respect to pollutants for which a health threshold has been established, the Administrator *may* consider such threshold level, with an ample margin of safety, when establishing emission standards under this subsection." *Id*. (emphasis added). But, even if the EPA considers, in its discretion, a health-based emission standard, the statutory text nowhere requires that the EPA adopt a more lenient standard than the MACT floor. This provision thus allows, but does not require, the EPA to adopt a standard more lenient than the MACT floor, subject to two critical restrictions: the Agency must determine (1) that there is an established health threshold, and (2) that the established threshold would provide "an ample margin of safety."

Using this authority, the EPA considered and adopted health-based emission standards for HCl in an earlier rulemaking for major boilers. *See* 2004 Boilers Rule, 69 Fed. Reg. at 55,240–41. At the time, the Agency based its decision on three key findings: a health threshold was established for HCl, adverse health effects were unlikely at emissions below that level, and low HCl emissions from major source boilers made HCl a "particularly well-suited" candidate for more lenient standards. *Id*. at 55,241. The EPA also said, however, that it was not embracing a general policy for HCl, but would instead "undertake in each individual rule to determine whether it is appropriate to exercise [the Agency's] discretion" to adopt such standards. *Id*. We later vacated that rule without considering the merits of the EPA's HCl decision. *See NRDC I*, 489 F.3d 1250.

The EPA again chose to consider a health-based standard for HCl in the current rulemaking, but this time declined to set such a standard. 2010 Major Boilers Rule, 75 Fed. Reg. at 32,030. The EPA explained that it continued to interpret its authority under section 7412(d)(4) to require that it find a health threshold exists, with an ample margin of safety, before using its discretion to depart from an established MACT floor. *Id*. The Agency reasoned further that, even if it made a finding that a health threshold exists, the discretionary nature of the authority allowed it to weigh additional factors when choosing whether to adopt the more lenient health-based standard. *Id*. Those factors included: the potential for *cumulative* adverse health effects due to concurrent exposure to other HAPs or emissions from other nearby sources; potential impacts of increased emissions on ecosystems; and reductions in emissions of other pollutants, also known as "co-benefits," achieved through enforcement of the HCl MACT floor. *Id*. at 32,030–31.

Applying this interpretation, the EPA suggested in its proposed rule that a health-based standard for HCl might not be appropriate because these additional health and environmental considerations cautioned against a more lenient emission standard. *Id*. at 32,031. The Agency acknowledged, in particular, that its decision in the 2004 rule was based on data that considered only the chronic respiratory effects of HCl exposure. *Id*. While affirming the validity of those findings, the EPA explained that those chronic impact studies did not consider the additional variables it had now identified, nor did it consider the potential acute or carcinogenic effects that might be caused by HCl exposure. *Id*. And, because of these potential (though

unproven) risks, the Agency resolved that it currently lacked sufficient information to establish an HCl emission standard that would protect health with an ample margin of safety. *Id*. It thus requested additional data from stakeholders and the regulated community to help address its concerns, including information regarding the potential cumulative effects of HCl emissions from boilers and other nearby sources. *Id*.

After receiving numerous comments on the issue, the EPA declined to set a health-based standard in the final rule for two primary reasons: (1) the comments had not provided sufficient data on potential *cumulative* health and environmental effects caused by HCl emissions from boilers and other nearby sources; and (2) the comments affirmed the potential *co-benefits* that limiting HCl emissions might have in lowering emissions of other HAP and non-HAP pollutants. 2011 Major Boilers Rule, 76 Fed. Reg. at 15,643–44. According to the EPA, its consideration of these co-benefits was not a regulation of other pollutants; rather, it was simply choosing not to ignore the purpose of the CAA—to reduce the negative health and environmental effects of HAP emissions—when exercising its discretionary authority under the Act. *Id*. at 15,644.

The Industry Petitioners contend that the EPA's consideration of the broad potential health and environmental impacts of HCl rendered the Agency's decision arbitrary and capricious. In particular, they argue that the Agency based its decision on two impermissible factors that were not supported by the record: (1) the potential cumulative effects of emissions from boilers and other nearby sources, and

(2) the co-benefits of setting a more stringent MACT floor standard for HCl. We disagree on both counts.

The statutory text and purpose of section 7412(d)(4) amply support the Agency's decision to consider potential cumulative risks associated with emissions from boilers and other nearby sources. Although other CAA provisions require the EPA to set emission standards based on the emissions from a particular source, section 7412(d)(4)'s plain language is not focused on emissions from any particular source. *Compare* 42 U.S.C. § 7412(d)(3) (instructing the EPA to set emission standards for *sources* at the level achieved in practice by the best controlled similar *source*), *with id.* § 7412(d)(4) (containing no mention of emissions from a particular source). The EPA's consideration of the cumulative impacts from these emissions is also relevant to the Agency's statutory mandate to ensure that a health threshold would protect health with an "ample margin of safety." As such, the Agency had discretion to consider the potential risks associated with the cumulative emissions of boilers and other nearby sources under this provision.

The EPA was likewise free to consider potential co-benefits that might be achieved from enforcing the HCl MACT floor. Section 7412(d)(4)'s text does not foreclose the Agency from considering co-benefits and doing so is consistent with the CAA's purpose—to reduce the health and environmental impacts of hazardous air pollutants. The Agency was under no obligation to ignore the CAA's purpose in making a final decision on whether to exercise a discretionary authority.

The Industry Petitioners attempt to refute this straightforward conclusion by pointing to

"restrictions" in another provision, section 7412(d)(2). No. 11-1108 Indus. Pet'rs' Br. 55-56. This provision requires the EPA to consider costs, non-air quality health and environmental impacts, and energy requirements in setting maximum achievable emission standards. Petitioners contend that these same "restrictions" must be read into section 7412(d)(4). But, even if we assume Petitioners are correct that these factors restrict the Agency's ability to consider other factors under section 7412(d)(2), that provision furthers the statute's command to set the strictest possible emission standards above what has already been achieved (*i.e.*, the MACT floors). Section 7412(d)(4), by contrast, is a permissive authority for the EPA to *abandon* already achieved emission standards. We do not read limits on the EPA's authority to *set more stringent standards* into a provision laying out the EPA's authority to *set more lenient* standards. If anything, the difference between the provisions cuts the other way. Section 7412(d)(4) does not specify the factors that Petitioners argue for, while section 7412(d)(2) does. This difference shows that Congress knew how to provide such limits where it found them necessary. We thus find no basis to conclude that the EPA could not consider potential cumulative effects or co-benefits in rejecting a more lenient health-based HCl standard.

Finally, the Industry Petitioners claim that the EPA's decision was arbitrary because the Agency failed to support its reversal from the 2004 rule, in which it set health-based emission standards for HCl. Because the EPA changed its position, the Petitioners contend that the Agency had to present *factual* support for its decision to disregard the facts and circumstances that underlay its prior adoption of

a health-based HCl standard. *See FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 516 (2009). The Agency failed to do this, Petitioners say, because it relied on a data *gap* regarding the potential cumulative effects of HCl exposure. But this argument fares no better than Petitioners' first.

At the outset, Petitioners misstate the EPA's burden to justify its change in policy. Although an agency does not generally need to provide a more substantial explanation or reason for a policy change than for any other action, it must do so where "its new policy rests upon factual findings that contradict those which underlay its prior policy." *Id*. at 515. In that circumstance, "it is not that further justification is demanded by the mere fact of policy change; but that a reasoned explanation is needed for disregarding facts and circumstances that underlay or were engendered by the prior policy." *Id*. at 515–16. The EPA, therefore, was not required to refute the factual underpinnings of its prior policy with new factual data. The Agency only needed to provide a reasoned explanation for discounting the importance of the facts that it had previously relied upon. *Id*.

The EPA did so here by explaining that its prior decision focused too narrowly on the chronic respiratory effects of HCl emissions without considering the broader implications of such emissions on health and environmental conditions. *See* 2010 Proposed Major Boilers Rule, 75 Fed. Reg. at 32,030–31. In so doing, the EPA neither contradicted nor abandoned the factual findings it made in its earlier rulemaking. It instead acknowledged that those findings were more limited than what it now considered necessary to justify the exercise of its discretion to set a health-based

standard. *Id*. For example, the Agency noted that: (1) little research had been done on HCl's carcinogenicity or on the toxicity of mixtures of HCl and other respiratory irritants emitted from boilers; and (2) the Agency had no data about peak short-term emissions of HCl from major boilers that might create risks of acute exposure. *Id*.

These enumerated concerns were sufficient to support the Agency's decision not to adopt a health-based standard. Section 7412(d)(4) does not require that the EPA present affirmative factual data to reject a health-based standard. The provision requires just the opposite: in order to impose a health-based standard, the Agency must find that a health threshold can be set that provides an ample margin of safety. The EPA here determined that it could not do so, in part because it lacked relevant data like that discussed above. 2011 Major Boilers Rule, 76 Fed. Reg. at 15,643–44. In other words, the EPA could not determine that any health threshold would provide an ample margin of safety to protect health. Without such a finding, the EPA could not invoke its discretionary authority under the statute. *Id*. There was thus nothing impermissible in the EPA's reliance on a lack of data in rejecting a more lenient health-based standard. The EPA's decision not to adopt health-based emission standards for HCl was not arbitrary and capricious.

H. EMISSIONS AVERAGING OF MULTIPLE CISWI UNITS IN ONE FACILITY

Certain industry entities urged the EPA to allow facilities with more than one CISWI unit to demonstrate MACT compliance by showing that the average HAP emissions across all units at that location fell under the relevant cap. They pointed to

the EPA's allowance of emissions averaging in the Major Boilers Rule but the Agency defended its disparate treatment because, in its view, "[t]he applicability of CISWI is such that each unit is an affected facility." *See* 2011 Proposed CISWI Rule on Reconsideration, 76 Fed. Reg. at 80,463. It subsequently elaborated that it did "not believe [it has] the legal authority to allow emissions averaging in CISWI or under section [7429] generally because each individual unit is an affected facility." CISWI Rule— Responses to Comments, at 195-96. The Industry Petitioners challenge the disallowance of facility-wide averaging for CISWIs, arguing that "unit" cannot mean "facility" because section 7429(g)(1) defines "solid waste incineration unit" as "a distinct operating unit of any facility" and therefore the EPA's rule fails *Chevron* step 1. They also argue the EPA's conflation of "unit" and "facility" is unreasonable, and thus violates *Chevron* step 2, because the EPA has allowed emissions averaging in a different section 7429 rule and in a number of section 7412 rules.

Although the Industry Petitioners' point is well taken—the plain terms of the CAA foreclose the EPA's conflation of a CISWI "unit" and "affected facility," *see* 42 U.S.C. § 7429(g)(1) ("facility" is comprised of "units")—we agree that the EPA has no statutory authority to allow emissions averaging under section 7429.[18] Section 7429 requires the EPA

---

[18] The EPA *does* have statutory authority under section 7412 to allow facility-wide emissions averaging in the Major Boilers Rule. See 42 U.S.C. § 7412(a)(1) ("major source[s]" defined as "any stationary source or *group of stationary sources* located within a contiguous area and under common control" (emphasis added)); *see also id*.

to regulate emissions from all "solid waste incineration units," 42 U.S.C. § 7429(a)(2); *see also id*. § 7429(a)(4), and the CAA defines a "solid waste incinerator unit" as "a *distinct operating unit*" of a "facility," *id*. § 7429(g)(1) (emphasis added). In other words, because the CAA mandates that the EPA regulate each "distinct" CISWI unit in a "facility," the EPA cannot allow emissions averaging of all CISWI units in a facility. *See id*.

For this reason, the Industry Petitioners' *Chevron* challenge fails, notwithstanding the EPA's minimal explanation set forth in its proposed CISWI Rule. It is axiomatic that an agency must "articulate[] an adequate explanation for its action," *Int'l Fabricare Inst. v. EPA*, 972 F.2d 384, 389 (D.C. Cir. 1992) (emphasis added); *see also State Farm*, 463 U.S. at 48, but the EPA's failure to do so here cannot create statutory authority that does not exist. And because the EPA has no authority under section 7429 to allow emissions averaging of multiple CISWI units in one facility, the Petitioners' *Chevron* argument does not carry the day.[19]

---

§ 7411(a)(3) ("stationary source" defined as "any building, structure, facility, or installation which emits or may emit any air pollutant").

[19] The EPA concedes that it once allowed, in a different rule, emissions averaging for units subject to section 7429 but has since concluded that it does not have the statutory authority to do so. Although the Industry Petitioners argue that the Agency arbitrarily changed its position, the fact that the EPA may have acted outside its authority in a rule is not at issue here. "[P]revious statutory violations," of course, "cannot excuse" new ones. *New Jersey v. EPA*, 517 F.3d 574, 583 (D.C. Cir. 2008).

I. ENVIRONMENTAL PETITIONERS' CHALLENGES

A. CARBON MONOXIDE AS A SURROGATE

As explained at *supra* §§ I.B.1 and III.F, the EPA used carbon monoxide (CO) as a surrogate for several nondioxin/ furan organic HAPs when the Agency set the MACT floors for major boilers. In support of this approach, the EPA found that both CO and these HAPs were the products of "incomplete combustion." 2010 Proposed Major Boilers Rule, 75 Fed. Reg. at 32,018. The Agency concluded as a result that CO was a reasonable surrogate because: (1) minimizing CO emissions would minimize these HAPs; (2) methods used for the control of these HAP emissions would be the same methods used to control CO emissions (i.e., good combustion or using an oxidation catalyst); (3) standards limiting CO emissions would result in decreases in these HAP emissions; and (4) establishing emission limits for individual organic HAPs would be impractical and costly. *Id*. Although several commenters challenged aspects of this reasoning, the EPA ultimately stuck with its decision to use CO as a surrogate for non-dioxin/furan organic HAP emissions, without further explanation, in the final Major Boilers Rule. *See* 2013 Major Boilers Rule, 78 Fed. Reg. at 7,145 (explaining the EPA was denying Sierra Club's petition to reconsider the suitability of CO as a surrogate for nonorganic HAPs based on the reasoning provided by the Agency in the 2010 proposed rule).

The Environmental Petitioners challenge this decision, arguing that the EPA has not adequately explained how setting emission standards for CO will accomplish what the statute plainly requires: that

the EPA set emission standards for organic HAPs at the average level achieved by the best performers *with regard to those HAPs*. We agree and remand to the EPA to adequately explain how CO acts as a reasonable surrogate for non-dioxin/furan organic HAPs. We do not, however, vacate the current emission standards because we conclude that the Agency will likely be able to adequately explain its decision on remand and that vacatur would prove substantially disruptive.

The EPA may use a surrogate to regulate HAPs under section 7412 where "reasonable." *See, e.g.*, *Nat'l Lime Ass'n*, 233 F.3d at 637. To be reasonable, the emission standard set for the surrogate must reflect what the best source or best 12 per cent of sources in the relevant subcategory achieved with regard to the HAP. *See Sierra Club I*, 353 F.3d at 984. This requires the surrogate's emissions to share a close relationship with the emissions of the HAP. *Id*. One crucial factor we have identified for determining whether that close relationship exists is the availability of alternative control technologies. *See id*. at 985. These technologies regulate the HAP without impacting a surrogate's emissions, or regulate the surrogate without impacting the HAP. *Id*. As we have explained, the importance of this factor to our reasonableness analysis "is clear: if EPA looks only to [the surrogate], but HAPs are reduced [in another] way that does not reduce [the surrogate], the best achieving sources, and what they can achieve with respect to HAPs, might not be properly identified." *Id*.

In the Major Boilers Rule, the EPA proposed using CO as a surrogate because, as relevant here: (1) the lowest possible CO emissions resulted in the

lowest possible HAP emissions, and (2) the same combustion and oxidation control methods reduce both types of emissions. *See* 2010 Proposed Major Boilers Rule, 75 Fed. Reg. at 32,018. But, during notice and comment, the EPA failed to directly consider and respond to several comments that introduced evidence suggesting that other control technologies and methods could be effectively used to reduce HAP emissions without also impacting CO emissions, or vice versa. *See, e.g.*, Inst. of Clean Air Cos., Comments on National Emission Standards for Hazardous Air Pollutants for Major Sources, EPA-HQ-OAR-2002-0058 (Aug. 23, 2010), at 20–21 (No. 11-1108 J.A. 822–23); Responses to Public Comments on EPA's National Emission Standards for Hazardous Air Pollutants for Major Sources, vol. 2, EPA-HQ-OAR-2002-0058 (Feb. 2011) (No. 11-1108 J.A. 1033, 1035–36, 1049–52). The EPA ultimately decided to use CO as a surrogate for all non-dioxin/furan organic HAPs in its final rule without ever addressing whether such alternative control technologies and methods might be used to lower organic HAP emissions further. *See* 2011 Major Boilers Rule, 76 Fed. Reg. at 15,654; 2013 Major Boilers Rule, 78 Fed. Reg. at 7,138. Instead, the Agency responded by doubling down on its assertion that both CO and organic HAP emissions were the product of poor combustion and, as a result, optimal combustion would minimize the emissions of both CO and non-dioxin/furan organic HAPs. 2013 Major Boilers Rule, 78 Fed. Reg. at 7,145. But this response was no response at all to the substantial concerns raised in the comments that other variables might also affect emissions.

Although we afford an agency's scientific decision "an extreme degree of deference," *see Kennecott*

Greens, 476 F.3d at 954–55 (quoting *Hüls Am., Inc. v. Browner*, 83 F.3d 445, 452 (D.C. Cir. 1996)), we cannot uphold an agency decision that does not consider all relevant factors or fails to establish a reasonable connection to the facts in the record. *Cf. Ethyl Corp. v. EPA*, 51 F.3d 1053, 1064 (D.C. Cir. 1995). The EPA could not conclude that CO acts as a reasonable surrogate in this statutory context without at least considering a key factor: whether the best performing boilers might be using alternative control technologies and methods that reduce organic HAP emissions beyond what they achieve by regulating CO alone. *See Sierra Club I*, 353 F.3d at 985. We therefore reject the EPA's contention that its reason for using CO as a surrogate—that good combustion would minimize both CO and non-dioxin/furan organic HAP emissions—was alone sufficient to support its decision.

We recognize that there might be a context where a surrogate's use is reasonable despite the presence of alternative control methods or technologies, but the Agency does not explain why it did not need to even *consider* whether such methods might further reduce HAPs here. For example, if the EPA used a surrogate that was closely correlated to the HAP and set surrogacy emission standards at a level that would eliminate HAP emissions altogether, the Agency might not need to account for alternative control technologies in its final rule. In that case, the use of the surrogate would not call into question whether the Agency had regulated the HAP as required by the statute because, after all, nothing is better than eliminating HAP emissions entirely. But the Agency offers us no analogous explanation or supportive data here. Although it is possible that all

of the challenged CO emission standards are in fact set at such a level, the Agency has not defended the rule on such reasoning. Indeed, the Agency failed to consider or even comment directly on this issue, including whether certain post-combustion processes might increase organic HAP emissions without a corresponding increase in CO emissions. We cannot ignore such an oversight in this context.

We reject, however, the Environmental Petitioners' other argument that combustion-related issues preclude the EPA from using CO as a surrogate for non-dioxin/furan organic HAPs. The Petitioners contend that the EPA's decision to use CO was arbitrary because record evidence demonstrated a breakdown in the correlation between CO and organic HAP emissions at CO emission levels below 130 parts per million (ppm). But the EPA explained that this apparent breakdown was most likely caused by the difficulty of measuring the regulated HAP at such extremely low emission levels, rather than by a flaw in the correlation between CO and organic HAPs. 2013 Major Boilers Rule, 78 Fed. Reg. at 7,144–45; Memorandum from Eastern Research Group, Inc. to Jim Eddinger, EPA, Revised MACT Floor Analysis for the Industrial, Commerical, and Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants—Major Source (2012 MACT Floor Memorandum) (Aug. 2012), at 11–12 (No. 11-1108 J.A. 1462–63). This is precisely the sort of scientific judgment to which we must defer and accordingly, we do so on this point. *See Kennecott Greens*, 476 F.3d at 954–55. The Environmental Petitioners fail to provide any reason to believe that organic HAP emissions can, in fact, be accurately measured at such low levels. And the Agency's explanation also addresses why the

EPA discounted record evidence regarding extremely high burn temperatures that demonstrated a potential breakdown in the CO and organic HAP relationship as HAP emissions approached zero.

Still, the EPA's failure to address substantial record evidence on the potential availability of alternative control technologies or methods rendered the Agency's use of CO as a surrogate for certain organic HAPs arbitrary and capricious. We thus remand the portion of the Major Boilers Rule providing for CO's use as a surrogate for non-dioxin/furan organic HAPs to the Agency for further consideration. We do not, however, vacate the current emission standards based on CO's use as a surrogate. We may remand without vacatur where there is a likelihood of (1) cure on remand, and (2) a substantial disruptive effect that would result from vacatur. *See Heartland Reg'l Med. Ctr. v. Sebelius*, 566 F.3d 193, 197–98 (D.C. Cir. 2009). Here, vacatur would cause substantial disruptive effects by removing emission limits for the regulated HAPs. And it is likely that the EPA will be able to adequately explain its use of CO on remand after properly considering the matter. As a result, we decline to vacate the current standards in the interim.

B. EXCLUSION OF CERTAIN UNITS FROM MACT ANALYSIS

In the Major Boilers Rule, the EPA created subcategories based primarily on the fuel combusted. *See* 2013 Major Boilers Rule, 78 Fed. Reg. at 7,142. To qualify for certain subcategories, the EPA required that a source burn a fuel mixture comprised of only 10 per cent of the subcategory-defining fuel. *See, e.g.*, *id.* at 7,193 ("Unit designed to burn solid fuel subcategory means any boiler . . . that burns . . .

at least 10 percent solid fuel . . . in combination with liquid fuels or gaseous fuels." (emphasis added)). Notwithstanding the low bar for inclusion, we conclude, and discuss at greater length below, *see infra* § IV.J, that the EPA reasonably exercised its discretion when it subcategorized boilers this way.

We cannot say the same about the EPA's exclusion of certain high-performing units from its MACT-floor calculation. Although the EPA allowed sources that combust only *10 per cent* of a subcategory-defining fuel to join that subcategory, it declined to consider emissions from any source that burned *less than 90 per cent* of the subcategory-defining fuel when determining the average emissions level of the best performing sources in setting MACT floors for existing sources. And when it set a subcategory's MACT floors for new sources, the Agency declined to consider the emissions levels from any source that did not burn *100 per cent* of the fuel. This disparate treatment makes a difference; several sources excluded from the MACT-floor determination were among the best performing sources (or, in some cases, the single best performing source) in that fuel-based subcategory.

The CAA, however, demands that source subcategories take the bitter with the sweet. Section 7412 mandates, without ambiguity, that the EPA set the MACT floor at the level achieved by the best performing source, or the average of the best performing sources, in a subcategory. *See* 42 U.S.C. § 7412(d)(3)(A), (B). It thus follows that if the EPA includes a source in a subcategory, it must take into account that source's emissions levels in setting the MACT floor.

The Agency, however, claims discretion to omit from MACT-floor computation sources it considers dissimilar. In support, it cites section 7412(d)(3), which provides that MACT standards must be no less stringent than "the best controlled *similar* source, *as determined by the [EPA]*." *Id*. § 7412(d)(3) (emphases added). Our decision in *Sierra Club II*, 479 F.3d 875, however, forecloses this argument. In *Sierra Club II*, the EPA set MACT standards for brick and ceramic kilns. *Id*. at 879. For some subcategories, the EPA based its MACT-floor determination on "the pollution control devices used by the *second-best performers*," not the best performers. *Id*. (emphasis added). Although the EPA argued that it "reasonably construe[d] the term 'best performing' . . . to allow it to consider whether retrofitting kilns with a particular pollution control technology is technically feasible," *id*. at 880 (alterations in original), we held that the EPA could not circumvent the requirement that it base the MACT floor "on the emission level actually achieved by the best performers (those with the lowest emission levels)." *Id*. at 880–81 (citing *Cement Kiln*, 255 F.3d at 861) (emphasis in original). We reach the same conclusion here.

The EPA tries to distinguish *Sierra Club II*, arguing that the issue in that case "was whether [the] EPA could exclude all units using the most-effective emission control technique because it might not be applicable to all existing units"; however, "[h]ere, [the] EPA is excluding a test result that is unrepresentative of typical operations of units in the subcategory, and thus is inappropriate to use in establishing the MACT floor." No. 11-1108 EPA Br. 81. But it makes no difference whether the EPA exempts from consideration units with certain highly

effective technology or units with impressive test results driven by the fuel combination it combusts. Either approach contravenes our holding in *Sierra Club II* that the EPA cannot ignore "the emission level actually achieved by the best performers (those with the lowest emission levels)" in the subcategory. 479 F.3d at 880 (emphasis omitted). In any event, the EPA has not simply excluded aberrant test results; it has excluded an entire class of units—those burning less than 90 per cent of the subcategory's fuel—even though every one of those units fits the subcategory's parameters. This is no different from what we rejected in *Sierra Club II*.

The EPA insists that if a source is "unrepresentative of typical operations of units in the subcategory," it is "inappropriate to use [it] in establishing the MACT floor." No. 11-1108 EPA Br. 81. Not so. "The idea is to set limits that, as an initial matter, require all sources in a category to at least clean up their emissions to the level that their best performing peers have shown can be achieved." *Sierra Club I*, 353 F.3d at 980 (citing 42 U.S.C. § 7412(d)(3)). For this reason, an unusually high-performing source should be considered; indeed its performance suggests that a more stringent MACT standard is appropriate. Accordingly, we vacate the MACT standards for all major boiler subcategories that would have been affected had the EPA considered all sources included in the subcategories.[20]

---

[20] In its brief, the EPA argued that the Environmental Petitioners' challenge was moot either because the challenged MACT standards had been remanded for other reasons or because inclusion of the allegedly dissimilar sources would not have affected the MACT standard.

C. UPPER PREDICTION LIMIT

Sections 7412 and 7429 create MACT-floor criteria that, for our purpose, are materially the same. *Compare* 42 U.S.C. § 7412(d), *with id.* § 7429(a)(2). In both provisions, the CAA mandates that MACT floors have maximum stringency but also be continuously achievable. *See id.* § 7412(d)(2), (k); *id.* § 7429(a)(2); *id.* § 7602(k). Satisfying the statutory criteria is no easy task, especially because no source emits any HAPs at a constant level. *See* Page Mem. 6. Rather, emissions levels fluctuate over time and for many reasons. *See id.* at 3.[21] We have held, *see Mossville Envtl. Action Now v. EPA*, 370 F.3d 1232, 1242 (D.C. Cir. 2004), and recently reaffirmed, *see NACWA*, 734 F.3d at 1133-34, that the EPA can consider this variability when setting MACT floors. Further complicating the task is the way in which sources typically measure emissions. Virtually all of the data the EPA collects to set MACT floors come from the three-run stack test. Page Mem. 6. The three-run stack test, as the name suggests, involves three measurements of the source's emissions taken

---

During oral argument, however, it conceded that it misunderstood the scope of the Petitioners' argument, which argument challenges unremanded MACT standards that have in fact been affected by the EPA's decision to omit certain high-performing sources from its MACT-floor analysis. *See* Oral Arg. Recording pt. B at 48:28–49:22. We believe that the Environmental Petitioners' challenge is not moot and has not been waived.

[21] *See also* Page Mem. 2-3 ("This variability occurs due to a number of factors, including measurement variability (both sampling and analysis) and short term fluctuations in the emission levels that result from short-term changes in fuels, processes, combustion conditions, and controls.").

over a short time period (*i.e.*, no more than a few days) with each of the three test "runs" lasting from one hour to four hours. *Id*. at 3. Because the tests provide three "snapshots" of a source's emissions performance, they cannot accurately represent the source's full range of emissions over all times and under all conditions. *Id*. at 3–4. Because stack testing typically involves "three separate runs," however, it "will in most cases show *some* of a particular source's variability over the short period of time during which testing was conducted." *Id*. at 6 (emphasis added).[22]

1. *NACWA*, 734 F.3d 1115 (D.C. Cir. 2013)

Based on the limitations inherent in stack testing, the EPA concluded that it could not set MACT floors based on that testing alone. It began using the UPL to account for the HAPs-emissions variety that stack-testing data do not reflect. *See NACWA*, 734 F.3d at 1122. The Agency did so in several rules promulgated in 2011, including not only the Major Boilers Rule and the CISWI Rule but also the Sewage Sludge Incinerator Rule addressed in NACWA. *See id*. In that case, the petitioners challenged the EPA's UPL use, arguing that the Agency failed to establish that the UPL fairly represented the "average emissions limitation achieved" by the best performing sources to set the Sewage Sludge Incinerator MACT floors and, accordingly, was "unlawful and arbitrary." *Id*. at 1130. We agreed in part. *See id*. at 1119.

---

[22] *See also* Page Mem. 5 ("[E]ven single three run tests, which are performed over a short period of time, typically show different emissions levels during each individual test run.").

Specifically, we struggled to pin down the EPA's precise interpretation of the phrase "average emissions limitation achieved by the best performing 12 percent of units." *Id.* at 1142–43 (quoting 42 U.S.C. § 7429(a)(2)).[23] As best we could tell, the EPA defended its use of the UPL as follows: "[b]ecause the [UPL] represents the value which [the EPA] can expect the mean (i.e., average) of *three future observations* (3-run average) to fall below, based upon the results of the independent sample size from the same population, the [UPL] reflects average emissions." *Id.* at 1142 (quoting Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Sewage Sludge Incineration Units, 76 Fed. Reg. 15,372, 15,389 (Mar. 21, 2011)) (emphasis added) (some alteration in original). In our view, however, "the word 'average' . . . seems to mean the average emissions limitation that the *existing* population of the best-performing 12 percent of incinerators *has achieved*." *Id.* (emphases added). Despite these doubts, we reasoned that the EPA could have "plausibl[y]" concluded that the UPL represents the "average emissions limitation achieved" by the best performing sources. *Id.* at 1143. That said, we were not willing to assume the EPA's responsibility of "supply[ing] a reasoned basis" for its UPL use. *Id.* (quoting *Bowman Transp., Inc. v. Ark.-Best Freight Sys., Inc.*, 419 U.S. 281 (1974)). For that reason, we remanded—but did not vacate, *see id.* at 1161—the

---

[23] *See also NACWA*, 734 F.3d at 1142 ("[I]t *seems* EPA has adopted yet another interpretation of the phrase 'average emissions limitation achieved by the best performing 12 percent of units.'" (emphasis added)).

UPL portion of the Sewage Sludge Incinerator Rule and ordered the EPA to "clarify how the [UPL] represents the average emissions limitation achieved by the best performing 12 percent." *Id.* at 1143 (internal quotation marks omitted).[24]

Because the EPA also used the UPL in the Major Boilers Rule and the CISWI Rule, the Agency moved for a limited remand of the current petitions so that it could include its revised UPL explanation in the administrative records of these two regulations.[25] *See* Page Mem. 2. On July 14, 2014, the EPA published a fifteen-page memorandum authored by Stephen D.

---

[24] *See also NACWA*, 734 F.3d at 1151 ("[W]hile we determine that [the] EPA's use of the [UPL] may be lawful, we are remanding this portion of its rulemaking for further explanation on the issue[] of how the upper prediction limit represents the average emissions limitation achieved . . . ." (internal quotation marks omitted)).

[25] In *NACWA*, we had other problems with the EPA's use of the UPL. Specifically, the EPA had explained that "a smaller dataset may have greater variability, and thus a higher [UPL]." *NACWA*, 734 F.3d at 1144. We instructed the EPA not only to explain its use of the UPL in general but also to "explain why the [UPL] could still be considered accurate *given a small dataset*" in particular. *Id.* at 1144-45 (emphasis added). In its remand motion, the EPA represented that it could "adequately explain why [its] use of the UPL in general is consistent with Clean Air Act requirements through a remand of the record for a limited time" but that "the question of whether the UPL is an appropriate statistical method for small data sets requires more analysis . . . [along with] additional notice and comment rulemaking." No. 11-1108 Mot. for Remand 9, 13 (Feb. 28, 2014). We agreed and, for this reason, the only issue we decide today is whether the EPA carried its burden of establishing, as a general matter, that the UPL reasonably estimates the average emissions level achieved by the best performing source or sources to set MACT floors.

Page, the EPA Director of Air Quality Planning and Standards (Page Memorandum), in response to *NACWA*. *See id*. at 1. The EPA's current explication of the UPL is now before us.[26]

2. The Page Memorandum

The Page Memorandum recognized our "concern about the interpretation [we] believed [the] EPA was taking" of the word "average." Page Mem. 3. It clarified that the Agency "does *not* interpret the term 'average'" to mean "the average of a future 3-run compliance test." *Id*. (emphasis added) (quoting *NACWA*, 734 F.3d at 1143). Rather, it explained that the "EPA interprets the average to mean the average

---

[26] The Environmental Petitioners urge us to ignore the Page Memorandum, insisting that it "provide[s] a series of new interpretations and assertions that, rather than 'explaining' the prior record, instead contradict and revise the agency's earlier position," in contravention of *NACWA* and the scope of the remand the Agency requested regarding the Major Boilers Rule and the CISWI Rule. No. 11-1108 Envtl. Pet'rs' Br. 41. But our *NACWA* decision did not, as the Petitioners would have it, require the EPA to adopt our belief that the Agency construed "average" to mean "the average of a future 3-run compliance test." *See NACWA*, 734 F.3d at 1143. Rather, we asked the EPA to clarify how, in its view, the UPL "represents the 'average emissions limitation achieved by the best performing 12 percent.'" *Id*. (emphasis added). Nor do we think that the EPA altered its initial basis for using the UPL, which the EPA has consistently held out as "a statistical formula designed to estimate a MACT floor level that is equivalent to the average of the best performing sources based on future compliance tests." 2011 Major Boilers Rule, 76 Fed. Reg. at 15,630 (emphasis added). What the EPA failed to do before *NACWA* was to explain how the UPL functions and why it is a reasonable way to calculate "average" emissions levels. The Page Memorandum does precisely that.

emissions over time," based not only on the "average of all emissions test data from the best performing source or sources" but also on "information regarding the variability of emissions." *Id*. (emphasis added).

In the EPA's judgment, "variability is a key factor in establishing" MACT standards because "[e]ach MACT standard is based on limited data from sources whose emissions are expected to vary over their long term performance." *Id*. Specifically, "[t]he available emissions data are generally in the form of short term, three-run stack tests, with each test run lasting for between 1 and 4 hours." *Id*. For this reason, the EPA concluded that it did not have information "encompass[ing] the emissions performance of a source *over time*." *Id*. (emphasis added). And because the "EPA interprets 'emissions performance' . . . to mean the emissions of a source over the long term, rather than just during a short-term stack test," the EPA found it necessary to "appl[y] a methodology that *predicts* the actual emissions levels the source is achieving at times *other than* when stack testing was conducted." *Id*. at 3–4 (emphases added).

The UPL is the methodology the EPA selected to account for these limitations. *Id*. at 4. "[A] value derived from widely accepted and commonly used statistical principles," the UPL "represents the upper end of a prediction interval." *Id*. In layman's terms, the UPL uses an equation that considers (1) the average of the best performing source or sources' stack-test results (i.e., the mean); (2) the pattern the stack-test results create (i.e., the distribution); (3) the variability in the best performing source or sources' stack-test results (i.e., the variance); and (4) the total number of stack tests conducted for the best

performing source or sources (*i.e.*, the sample size). *Id*. at 4–5.

The UPL, however, cannot demonstrate with absolute certainty the average emissions levels achieved by the best performing sources at all times (indeed, certainty is impossible without continuous monitoring). *See id*. Instead, the UPL equation produces a range of values that is *expected*, given the variance in the relevant stack-test data, to encompass the average emissions levels achieved by the best performing sources a specified percentage of the time. *Id*. at 4. To establish the MACT floor, the EPA calibrated the UPL equation to produce a range in which the average emissions levels of the best performing source or sources would be expected to fall 99 per cent of the time, which is referred to as a 99 per cent confidence interval. *Id*. Once the EPA had this range, it set the MACT floor at the top level of that range—hence, the "upper" in "upper prediction limit"—to arrive at a figure that, 99 out of 100 times, it expected the average emissions levels of the best performing sources to "achieve." Id. Or, in the EPA's words, "the 99 percent UPL is the level of emissions that" the EPA is "99 percent confident is achieved by the average source represented in a dataset over a long-term period based on its previous, measured performance history as reflected in short term stack-test data." *Id*.

One of the equations the EPA used to calculate the UPL is as follows:[27]

---

[27] The EPA used "one of several equations" to calculate the UPL depending on "certain characteristics of [the] dataset," including the distribution of data within the

$$= \bar{x} + t(0.99, n-1) \times \sqrt{s^2 \times \left(\frac{1}{n} + \frac{1}{m}\right)}$$

NACWA, 374 F.3d at 1139. In this equation:

- "$\bar{x}$" is the mean;
- "t(0.99, n-1)" is a value called the "t-statistic," the statistical tool used to set the confidence interval (here, 99 per cent);
- "n" is the sample size;
- "m" is the number of stack tests that were run to calculate the mean ("$\bar{x}$"); because most stack tests involve 3 "runs," m usually equals 3;
- "s" represents the "standard deviation."

See id.; *see also* Page Mem. 10–11.

3. Instant Challenges to UPL

After the EPA issued the Page Memorandum, the Environmental Petitioners renewed their argument that the UPL represents neither (1) the "average" emissions limit of the best performing source or

---

dataset. Page Mem. 4. Here, we set out the equation the EPA used for a dataset with a "normal distribution." *Id*. at 10. For our review, we need not recount the other, somewhat more complicated equations the EPA used in determining the UPL for datasets with, e.g., a "lognormal distribution." *See id*. ("Even though they differ due to separate mathematical properties associated with each distribution, the UPL equations share a common format . . . ."); *see generally id*. at 11 (describing lognormal distribution equation).

sources in a subcategory, nor (2) the emissions levels "achieved" by the best performing sources in a subcategory. We believe that the EPA has carried its burden of demonstrating that the UPL "reflect[s] a reasonable estimate of the emissions achieved in practice by the best performing sources." *Cement Kiln*, 255 F.3d at 871–72 (internal quotation marks omitted); *see also NACWA*, 734 F.3d at 1148 ("[H]aving decided to account for variability, and having decided to estimate that variability, EPA bears the burden of demonstrating with substantial evidence that its estimate is reasonable.").

Our conclusion is driven, in large part, by the deference we owe the EPA when it determines how best to meet the technical challenges in its area of expertise. Indeed, the EPA "typically has wide latitude in determining the extent of datagathering necessary to solve a problem" and, for that reason, we have "accorded *Chevron* deference to [its] interpretation of [the CAA] as allowing it to estimate MACT floors." *NACWA*, 734 F.3d at 1131. Moreover, "the requirement that the existing unit floors not be less stringent than the average emissions limitation achieved by the best performing 12 percent of units does not, on its own, dictate how the performance of the best units is to be calculated," *id*. (internal quotation marks omitted)—"[f]loors need not be perfect mirrors of the best-performers' emissions," *Cement Kiln*, 255 F.3d at 871. So long as the EPA "demonstrate[s] with substantial evidence—not mere assertions"—that the UPL "allows a *reasonable inference* as to the performance of the top 12 percent of units," *NACWA*, 734 F.3d at 1131 (quotations omitted) (emphasis added), the EPA has conducted reasoned decision making.

The Agency has done so here. The Page Memorandum explains the limitations of stack-test data—*i.e.*, the "snapshots" cannot reflect the best performing source's or sources' average emissions levels at all times and under all operating conditions. Page Mem. 6. The Page Memorandum also explains that the Agency chose the UPL as a tool "derived from widely accepted and commonly used statistical principles," *id*. at 4, that "reasonably account[s] for variability in the emissions of . . . sources," *id*. at 2. Finally, the Page Memorandum plugs the analytical gap we identified in *NACWA*—it thoroughly explains how and why the UPL accounts for the variance and therefore how and why it reasonably represents the emissions level "achieved by the average source" or sources. *Id*. at 3–5. In so doing, the EPA has "clarif[ied]," to our satisfaction, "how the upper prediction limit represents the average emissions limitation achieved." *NACWA*, 734 F.3d at 1143 (internal quotation marks omitted).

The Environmental Petitioners' arguments to the contrary are unavailing. Their primary objection is that the UPL cannot reasonably estimate the "average" emissions level achieved by the best performing source or sources because the UPL represents "a level [the] EPA expects *any* future compliance test by *any* [source] in the top 12 percent to fall below." No. 11-1108 Envtl. Pet'rs' Br. 35 (emphases added) (internal quotation marks omitted).[28] But the Page Memorandum counters the

---

[28] *See also* No. 11-1108 Envtl. Pet'rs' Reply Br. 15 ("It is, as its name indicates, an upper limit—the emissions limitation that every member of the best-performing 12

Environmental Petitioners' mistaken understanding of what the UPL represents.[29] According to the EPA, "the UPL does not represent the *worst* emissions performance of the best performing units at any time." Page Mem. 4 (emphasis in original).[30] It is instead "the *average* level expected to have been achieved over time" by the best performing source or sources. *Id*. (emphasis in original). "In other words, the 99 percent UPL is the level of emissions that [the EPA is] 99 percent confident is achieved by the *average source* . . . over a long-term period based on its previous, measured performance history as reflected in short term stack test data." *Id*. (emphasis added).

Next, the Environmental Petitioners criticize the Page Memorandum's explanation that the UPL represents the long-term average emissions levels achieved because "the first element of the UPL equation is the average of the short-term emissions test data from the best-performing sources." *Id*. In

---

percent will fall below . . . ." (emphasis in original) (quotation marks omitted)).

[29] The Environmental Petitioners' argument rests, at least in part, on their contention that we should not consider the Page Memorandum at all. We decline their invitation to ignore the explanation we ordered the EPA to provide.

[30] *See also* Page Mem. 5 (It is "generally . . . reasonable to establish a [MACT floor] standard that all the best performing 12 percent of existing sources can meet without any modification because the statute requires the Agency to establish the standard at the *average* level of performance of the best 12 percent of sources." (emphasis in original)); *id*. at 14 ("[T]he MACT floor represents the *average* emission level achieved by the best performing sources, not the *worst* emission level achieved by those sources." (emphases in original)).

their view, the UPL is no different from "saying that, over time, the average of 1, 2, and 3 = 2 + 500 because the first element in the equation (2) is the average of 1, 2, and 3." No. 11-1108 Envtl. Pet'rs' Br. 48. But the UPL does not simply tack an arbitrary increase on top of the stack-test average of the best performing sources. Rather, the UPL "allows [the] EPA to use emissions test data *and the data characteristics*," which include "the distribution and sample size, along with the intrinsic variability *associated with those data*," to estimate "an emissions limit based on a specified level of confidence such that an average best performing existing source would not be expected to exceed the limit a specified number of times." Page Mem. 6 (emphases added). In other words, the UPL does not simply add an arbitrarily chosen value but instead turns entirely on the features inherent in the stack-test data and how those features reflect the natural variance in emissions experienced by the best performing sources over time. *See id*. at 4 ("[T]he MACT floor calculation takes into account the *inherent variability* in emissions performance to more accurately reflect the range of the best performing sources' emissions over time." (emphasis added)).[31] Thus, as the Page Memorandum amply demonstrates, *see id*., the EPA's use of the UPL is not arbitrary.

---

[31] *See also* Page Mem. 6–7 ("[T]he UPL equation that is used to account for variability and [to] calculate the MACT floor standard depends on the distribution of the data."); *id*. at 11 ("The UPL . . . is directly related to the confidence level and to the variance, meaning that as either of these values go up or down, so does the UPL value.").

The Environmental Petitioners also attack the results produced by the UPL. They provide a series of charts that, in their view, demonstrate that the UPL sets MACT floors far too high to comport with the CAA's mandate that floors represent "the maximum degree of reduction in emissions." *See* 42 U.S.C. § 7412(d)(2). True, some of the charts show that the EPA has set a MACT floor above the highest emissions level recorded by the best performing sources' stack testing. *See* No. 11-1108 Envtl. Pet'rs' Br. 14–15; No. 11-1108 Envtl. Pet'rs' Reply Br. 23. But this does not mean that the UPL is an arbitrary "average" proxy—for at least two reasons.

First, the charts selectively included are generated from data sets with considerable variance between the highest recorded stack test and the lowest. Unsurprisingly, if a handful of "snapshots" in a data set demonstrate that emissions levels experience high spikes and low plummets at discrete times, it is more likely that the average emissions level achieved by the best performing sources at all times might be high. This is because a data set with high variability will produce a higher UPL than a data set with low variability, even if the two sets share the same average. In other words, the UPL takes large variance into account and therefore naturally goes higher to arrive at the 99 per cent certainty the EPA thinks is appropriate.[32] Second,

---

[32] The EPA "selected the 99 percent level in order to provide reasonable assurance that the limit can be met at all times by a source with emissions at the average level achieved by the best performing source or sources." Page Mem. 10. The Environmental Petitioners have not challenged the EPA's choice of a 99 per cent confidence level, as opposed to a lower level of certainty, and we express no opinion on that

where the UPL suggested a MACT floor higher than the results of the stack tests, it often did so by insubstantial amounts. Indeed, for at least one chart, "the limit is a mere 4 *millionths* of a pound per million Btu above the emissions test results of best performers, an unalarming amount given that the methodology is supposed to account for *variable* results." No. 11-1108 Indus. Intervenors' Br. 10 (emphases in original). For these reasons, the Environmental Petitioners have not convinced us that the EPA failed to satisfy the "minimal standard[] of rationality" that we require. *Ethyl Corp. v. EPA*, 541 F.2d 1, 36 (D.C. Cir. 1976) (en banc).

Finally, the Environmental Petitioners insist that "[t]he UPL predicts a level that hypothetical future tests will fall below, rather than estimating what boilers actually achieved," in contravention of the requirement that MACT floors "reflect what the best-performing sources achieved." No. 11-1108 Envtl. Pet'rs' Reply Br. 24 (internal quotation marks omitted). But the Environmental Petitioners ignore the Page Memorandum's explanation that, because the UPL is not time-dependent, it "not only is a prediction of the emissions performance of those sources in tests conducted in the future, but is also an indication of the range of current average emissions performance of those units." Page Mem.

---

choice. And we reiterate that the more specific concerns we had with the UPL when we decided NACWA—in particular, the UPL's accuracy "given a small dataset"—are not before us. 734 F.3d at 1144–45.

3;[33] *see also* No. 11-1108 Indus. Intervenors' Br. 9 ("Because this statistical method is not time-dependent, it is equally valid for predicting past performance (*i.e.*, the range of emissions levels expected to have been experienced in the past by the best performers during periods when actual emissions testing was not underway) and future performance.").

We believe that the UPL "reflect[s] a reasonable estimate of the emissions achieved in practice by the best-performing sources," *Cement Kiln*, 255 F.3d at 871–72 (internal quotation marks omitted), and, accordingly, we reject the Environmental Petitioners' challenge to it.

D. BEYOND-THE-FLOOR STANDARDS FOR CISWI UNITS

The EPA declined to set beyond-the-floor standards for CISWI units. The Environmental Petitioners challenge that determination in three primary respects, each of which we reject.[34]

---

[33] *See also* Page Mem. 4 ("[T]he 99 percent UPL is the emissions level that the source would be predicted to be below 99 out of 100 performance tests, including emissions tests conducted in the past, present, and future."); *id*. at 10 ("The confidence level, in this case 99 percent, is the percentage of measurements (past, present, and future) that are predicted to fall at or below the UPL value.").

[34] Although the EPA does not argue that the court lacks jurisdiction to consider this argument, Environmental Petitioners raise the issue defensively, contending that they satisfied the CAA's administrative exhaustion provision. We agree. During the rulemaking process, the Petitioners comprehensively critiqued the EPA's proposed rationale for rejecting beyond-the-floor standards. *See, e.g.*, Natural Resources Defense Council, Comments on

Section 7429 of the CAA directs the EPA to set MACT standards in two steps. It first sets a floor level based on the best performing sources. *See* 42 U.S.C. § 7429(a)(2). Next, it determines "whether a more restrictive standard is 'achievable,'" *NRDC III*, 749 F.3d at 1057, "taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements,"[35] 42 U.S.C. § 7429(a)(2). The "EPA calls these stricter requirements 'beyond-the-floor' standards." *NRDC III*, 749 F.3d at 1057.

In section 7429, the "Congress gave EPA broad discretion in considering whether to go beyond-the-floor." *NACWA*, 734 F.3d at 1157. The Congress required the EPA to *consider* a variety of factors without telling the EPA how to weigh them. That

---

Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources, EPA-HQ-OAR-2003-0119 (Aug. 23, 2010), at 11–16 (No. 11-1125 J.A. 668–73). Many of those comments challenged the EPA's consideration of costs and other factors—the same types of issues Petitioners now ask the Panel to resolve. Because the Environmental Petitioners raised the relevant issues "with reasonable specificity" during the period for public comment, our jurisdiction is not in question. 42 U.S.C. § 7607(d)(7)(B); *see Portland Cement Ass'n v. EPA*, 665 F.3d 177, 186 (D.C. Cir. 2011) ("While we certainly require some degree of foresight on the part of commenters, we do not require telepathy. We should be especially reluctant to require advocates for affected industries and groups to anticipate every contingency.").

[35] EPA interprets the statutory factor of "cost" to permit consideration of cost-effectiveness, *NRDC III*, 749 F.3d at 1060–61, which is often calculated "on [a] per ton of emissions removed basis," *Husqvarna AB v. EPA*, 254 F.3d 195, 200 (D.C. Cir. 2001). We have previously upheld that interpretation. *See, e.g.*, *NRDC III*, 749 F.3d at 1060–61.

calculus belongs to the EPA's discretion. *See* 42 U.S.C. § 7429(a)(2) (delegating to the EPA Administrator the responsibility to "tak[e] into consideration" the statutory factors). Against that backdrop, challenges to the EPA's beyond-the-floor determinations "must clear a high bar, as we are at our most deferential when an agency is 'making predictions, within its area of special expertise, at the frontiers of science.'" *NACWA*, 734 F.3d at 1156 (quoting *Husqvarna*, 254 F.3d at 199).

When establishing MACT standards for CISWI, the EPA declined to establish beyond-the-floor standards in the proposed rule, *see* 2010 Proposed CISWI Rule, 75 Fed. Reg. at 31,956–59, and the final rule, *see* 2011 CISWI Rule, 76 Fed. Reg. at 15,729–32. The EPA also declined requests to reconsider that decision. *See* Memorandum from Eastern Research Group, Inc., to Amy Hambrick, U.S. Environmental Protection Agency, Revised Draft CISWI Reconsideration Issues (Dec. 20, 2012), at 22–23 (No. 11-1125 J.A. 1219–20).

The first challenge targets several instances in which the EPA refused to require sources to adopt, as a beyond-the-floor measure, controls that most sources would employ to meet the MACT floor standard. In each instance, the EPA determined that the relative costs outweighed the expected emissions gains. In the first such case, the EPA decided not to require liquid-fired energy recovery units to install dry sorbent injection and fabric filters as a beyond-the-floor measure, despite the fact that "four of the six" units would need to install those systems to meet the floor standard. 2011 CISWI Rule, 76 Fed. Reg. at 15,731. That decision satisfied the statute. Had the EPA mandated the control measures, the

remaining two units would have needed to expend "$1.1 million per year" to achieve only a small emissions reduction, "which translates into an incremental cost-effectiveness of about $230,000 per ton" of emission. *Id*. Nothing in section 7429(a)(2) requires the Agency to impose a cost so disproportionate to the expected emissions gains.

The Environmental Petitioners take issue with two other decisions along these lines. In the first, the EPA declined to set beyond-the-floor mercury control measures for kilns, citing a cost-effectiveness of roughly $351 million per ton. *See* Memorandum from Eastern Research Group, Inc., to Toni Jones, U.S. Environmental Protection Agency, Final Reconsideration Beyond-the-Floor Analysis for CISWI Units (Reconsideration Mem.) (Dec. 20, 2012), at ¶ 3.4.2 (No. 11-1125 J.A. 1232). In the second, a $26,000 per-ton implementation cost led the Agency not to establish stricter carbon monoxide control measures for calciner kilns. See id. ¶ 3.4.3. Energy use—a factor mandated in section 7429(a)(2)—also entered the equation. With respect to calciner kilns, the technology used to reduce carbon monoxide would also increase energy requirements, and therefore increase energy costs. *See id*. In each of these decisions, the EPA reasonably applied the statutory factors. That Petitioners would have weighed the costs differently provides no grounds to displace the EPA's otherwise reasonable determination.

In the second challenge to the decision not to set beyond-the-floor standards, the Environmental Petitioners contend the Agency arbitrarily failed to set emission levels lower than the MACT floor for categories likely to adopt technology capable of meeting those lower levels. Specifically, according to

the Environmental Petitioners, the EPA knew waste-burning kilns and energy recovery units would adopt fabric filters that "achieve particulate matter emissions levels dramatically lower than the floor, but refused to set the standard at that lower level." *See* No. 11-1125 Envtl. Pet'rs' Br. 50.

That is incorrect. The Environmental Petitioners spin this yarn based on a line in the proposed rulemaking. There, the Agency speculated that kilns and energy recovery units would adopt fabric filters to comply with the MACT floor limit, and would "likely achieve a level of performance" below the floor. 2010 Proposed CISWI Rule, 75 Fed. Reg. at 31,958. That statement represented a *preliminary* prediction, which was subject to change during the notice-and-comment process. And change it did. In the final rulemaking, the EPA further subcategorized the energy recovery unit subcategory and revised the MACT floor for waste-burning kilns. *See* 2013 CISWI Rule, 78 Fed. Reg. at 9,122 (explaining the changes). New information received during the rulemaking inspired those changes, which the EPA made after considering the statutory factors. *See id.*; Reconsideration Mem., ¶ 2.3-3.4.5. The evidence does not suggest that the EPA refused to set beyond-the-floor emission levels it knew were reasonably achievable.[36]

---

[36] This argument suffers from an additional flaw: the Environmental Petitioners appear to treat as interchangeable proposed emissions rules for new units with the final rules applicable to existing ones. That apples-and-oranges comparison underscores the weakness of the argument.

In the third challenge, the Environmental Petitioners take issue with three determinations that rested on factors other than cost. First, the EPA declined to require coal-fired energy recovery units to adopt linkageless boiler management systems as a beyond-the-floor measure for carbon monoxide. See Reconsideration Mem., ¶ 2.3.1.1. While acknowledging that linkageless systems were available at "fairly low-cost," the EPA concluded it had insufficient data to determine the "actual reductions this control option would achieve" relative to an alternative control system. *Id*.

The EPA acted reasonably. The record suggests the EPA had scant evidence on the efficacy of linkageless control measures applied to coal-fired energy recovery units. *See id*. Had the Agency imposed a stricter standard based on controls for which it had precious little (if any) evidence, a reviewing court may well have concluded the decision lacked "a rational connection between the facts found and the choice made." *State Farm*, 463 U.S. at 43 (internal quotation marks omitted).

Second, the EPA rejected regenerative thermal oxidizers as a beyond-the-floor control for carbon monoxide in solid waste energy recovery units. *See* 2011 CISWI Rule, 76 Fed. Reg. at 15,732. Thermal oxidizers could do the job "but likely at a far greater energy requirement (specifically natural gas) [and] with comparable control efficiency" as carbon monoxide catalysts, which "some units will need to install to meet the MACT floor . . . limits." *Id*. In other words, even though oxidizers work as well as carbon catalysts, oxidizers would be unsuitable because they use more energy. *See id*. (concluding that beyond-the-floor controls "would be unrea-

sonable for this subcategory due to additional cost and energy impacts").

The Environmental Petitioners contend that the EPA failed to "suggest that these natural gas requirements are high in an absolute sense or relevant to achievability." No. 11- 1125 Envtl. Pet'rs' Br. 51. We agree that the EPA's analysis is less than fully satisfying. Among other reasons, nowhere did the Agency estimate the per-ton cost of mandating thermal oxidizers, or compare the energy costs relative to other control measures.

Despite these imperfections, we reject the challenge. *See Dist. Hosp. Partners, L.P. v. Burwell*, 786 F.3d 46, 61 (D.C. Cir. 2015) ("[I]mperfection alone does not amount to arbitrary decision-making."). The EPA's somewhat sparse analysis on this issue reflects a somewhat sparse record. At bottom, the Agency rejected thermal oxidizers because it lacked sufficient evidence to support their utility, at least compared with control measures whose efficacy and costs were better known.

The Agency's determination should be read in context. Elsewhere in the final rule, the EPA expanded on the energy and environmental impacts of thermal oxidizers, concluding that "[t]he combustion of fuel needed to generate additional electricity and to operate [thermal oxidizer] controls would yield slight increases in emissions, including NOX, CO, PM, and SO_2 and an increase in CO_2 emissions." 2011 CISWI Rule, 76 Fed. Reg. at 15,744. The EPA addressed another statutory factor—cost—by reasonable implication. Energy—natural gas, in this case—is not free. A technology that demands "far greater energy requirement[s]" naturally comes at a cost. *See id*. at 15,732.

Though courts are powerless to "supply a reasoned basis for the agency's action that the agency itself has not given," "[w]e will . . . uphold a decision of less than ideal clarity if the agency's path may reasonably be discerned." *State Farm*, 463 U.S. at 43 (internal quotation marks omitted). Here, the Agency's path may reasonably be discerned: mandating thermal oxidizers was not achievable due to increased energy demands and a corollary increase in cost, *see* 2011 CISWI Rule, 76 Fed. Reg. at 15,732 (declining to set a beyond-thefloor limit "due to additional cost and energy impacts"). For those reasons, EPA did not act unreasonably.

Third, and finally, the Environmental Petitioners challenge the rejection of dry sorbent injection and wet scrubbers as beyond-the-floor measures for waste-burning kilns. The EPA determined those measures would be cost-effective (at only $5,000 per ton) but declined to require them due to "uncertainty" surrounding "the appropriate control system that some existing kilns would need to employ to meet" a stricter standard, "especially kilns that use ingredients with a high sulfur content." See Reconsideration Mem., ¶ 3.4.5. Adding to that uncertainty, the EPA could not "account for potential costs at existing sources for additional scrubber water and spent sorbent." *Id*. As before, the EPA reached a reasonable conclusion in the face of imperfect information. Had the EPA set a beyond-the-floor standard based on sorbent injection and wet scrubbers, the Agency would have been flying blind. In avoiding that course, we conclude the EPA acted reasonably.

E. REGULATION OF CERTAIN CISWI UNITS

The final CISWI Rule did not contain emission standards for burn-off ovens, cyclonic burn barrels, foundry sand reclamation units, soil treatment units, and space heaters. The Environmental Petitioners claim that the EPA unlawfully exempted these units from regulation by creating subcategories that capture only a subset of the units that the Agency is required to regulate as CISWI. The EPA, however, protests that it did not exempt these five types of units from regulation. Rather, the Agency determined that it lacked sufficient data to regulate the units at this time, and, with respect to some, it received comments suggesting the units were not CISWI.[37]

---

[37] The EPA asserts that it has not made a final decision with regard to the regulation of the five units at issue here—a claim that calls into question our jurisdiction, which under the CAA is limited to "final" actions. *See Portland Cement*, 665 F.3d at 193 (citing 42 U.S.C. § 7607(b)). We disagree with the Agency. Because the statutory deadline for the EPA to establish emission standards for all CISWI has passed, *see* 42 U.S.C. § 7429(a)(1)(D), "the promulgated regulations must be deemed the [A]gency's complete response in compliance with the statutory requirement[]." *Hercules Inc. v. EPA*, 938 F.2d 276, 282 (D.C. Cir. 1991) (internal quotation marks omitted). Accordingly, "even if [the Agency] promulgates additional . . . rules sometime in the future, petitioners' claim that the *existing* final regulations are unlawful remains reviewable by this court." *Id*. (internal quotation marks omitted). Moreover, the EPA did not signal in the administrative record that it was "continu[ing] the rulemaking process" as to these five units. *Portland Cement*, 665 F.3d at 194 (holding that the EPA's action was not "final" under 42 U.S.C. § 7607(b) because the Agency expressly stated in its final rule that the rulemaking process remained underway). We therefore

We agree with the Environmental Petitioners that the Agency has violated its nondiscretionary statutory duty (1) to promulgate standards with respect to cyclonic burn barrels, and (2) to determine whether the remaining four types of units fall within the statutory definition of CISWI. The CAA requires the EPA to "establish performance standards . . . for each category of solid waste incineration units" no later than November 15, 1994. *See* 42 U.S.C. § 7429(a)(1)(A), (D). The statute then defines "solid waste incineration unit" as a "distinct operating unit of *any* facility which combusts *any* solid waste material from commercial or industrial establishments or the general public." *Id.* § 7429(g)(1) (emphasis added). That provision unambiguously requires the EPA to set emission standards for "any facility that combusts any commercial or industrial solid waste material at all," subject only to the listed statutory exceptions. *NRDC I*, 489 F.3d at 1257–58. Because the statutory deadline to regulate these units has long passed, the EPA has "breached a nondiscretionary duty" if it has failed to promulgate standards for *any* facilities combusting solid waste from commercial or industrial establishments that do not fit into the listed exceptions. *Sierra Club v. EPA*, 992 F.2d 337, 346 (D.C. Cir. 1993); *cf. id.* (explaining that the "plain language" of a similar provision in RCRA "obligates the Agency to issue, by the deadline, revisions for *all* facilities" covered by the statute and therefore "does not contemplate partial compliance").

---

need not consider whether our conclusion regarding finality would change had it done so.

The Agency makes no effort to claim that cyclonic burn barrels fall outside the statutory definition for CISWI units. Nor could it—both the administrative record and the EPA's brief make clear that cyclonic burn barrels "combust" solid waste. *See* 2011 Proposed CISWI Rule on Reconsideration, 76 Fed. Reg. at 80,460 (describing a cyclonic burn barrel as "a combustion device for waste materials"); No. 11-1125 EPA Br. 68 (same); see also 42 U.S.C. § 7429(g)(1) (defining "solid waste incineration unit" as a "distinct operating unit of any facility which combusts any solid waste material from commercial or industrial establishments or the general public"). Because they combust solid waste, cyclonic burn barrels clearly fall within the statutory definition of "solid waste incineration unit" and, as established above, the EPA had a nondiscretionary statutory duty to establish emission standards for *all* these units by 1994. We therefore conclude that the Agency violated that duty by failing to promulgate emission standards for cyclonic burn barrels.

The EPA protests that it reasonably chose not to regulate cyclonic burn barrels at this time, given how little information it had on them. According to the EPA, comments revealed there were many more cyclonic burn barrels in use than originally thought, the Agency lacked data on these units, and it was "difficult, if not impossible, to test such units for the section 7429 pollutants." No. 11-1125 EPA Br. 69. But this argument misses the point: in light of the unambiguous statutory command to promulgate numeric standards for *all* solid waste incineration units, the EPA had no discretion to avoid regulating any such units—even if its choice to avoid regulating these units would have been otherwise reasonable. The Agency was obligated to collect the data it

needed, and Congress gave it the authority to do so. *See* 42 U.S.C. § 7414(a) (explaining that for the purpose of regulating solid waste combustion under section 7429, the EPA may, for example, require owners and operators of those units to sample emissions, keep records, and offer other information that the Agency needs). Moreover, the Agency provides no evidence that it would be infeasible to set emission standards for these units. Instead, the EPA merely states that it "received information" that measuring emissions is difficult, "if not impossible," but points to no comments or evidence supporting this assertion. 2011 Proposed CISWI Rule on Reconsideration, 76 Fed. Reg. at 80,460.

The EPA also had a duty to determine whether the other challenged sources—burn-off ovens (including foundry sand reclamation units), soil treatment units, and space heaters—were units that "combust" solid waste. Several commenters told the Agency that these units fell within the statutory definition of CISWI, and the EPA itself initially viewed some of these units as combusting waste. *See, e.g.*, CISWI Rule— Responses to Comments, at 74–76; 2010 Proposed CISWI Rule, 75 Fed. Reg. at 31,941. Under these circumstances, the Agency was obligated to determine whether the units in fact combust solid waste. Yet the EPA concedes it never made that determination. As we have explained, the EPA had a nondiscretionary duty to promulgate standards for *all* solid waste combustion units. This obligation includes the subsidiary duty to determine whether the units identified by the commenters in fact combust solid waste. Any other conclusion would allow the Agency to ignore its statutory mandate altogether by not taking the initial step of identifying such units.

The CAA unambiguously requires that the Agency establish standards for all CISWI units. As a result, we grant the Environmental Petitioners' petition for review on this issue and remand to the Agency to set emission standards for cyclonic burn barrels. The EPA must also determine whether the remaining four types of units are CISWI units and, if it finds that they are, it must set standards for them as well.

F. DELISTING UNDER 42 U.S.C. § 7412(C)

In contrast to major source subcategories (all of which the EPA must control), the CAA does not require the EPA to control emissions in every area source subcategory. See 42 U.S.C. § 7412(c)(1), (3). The Act does, however, mandate that the EPA control area source emissions if the area source subcategory meets certain criteria. Section 7412(c)(1), for instance, requires the EPA to control any area source subcategory upon the Agency's finding that emissions from the sources in the subcategory jeopardize either the environment or human health. *See id*. § 7412(c)(3). If so, the EPA can establish either a MACT or a GACT standard. *See id*. § 7412(d)(5). Similarly, if the EPA finds that capping emissions from an area source subcategory is necessary to achieve a 90 per cent reduction in the aggregate emissions of one of seven CAA-enumerated HAPs, section 7412(c)(6) requires the Agency to impose caps in that subcategory as well. *See id*. § 7412(c)(6). Upon that finding, however, the EPA *must* impose a MACT standard. *Id*.

In addition to prescribing requirements for inclusion of area source subcategories, the CAA provides a mechanism for removal of area source subcategories that, in the EPA's view, no longer need

to be controlled. Specifically, the EPA can "delete" any subcategory if it finds that no source or group of sources in it (1) emits *cancer-causing* HAPs at a volume sufficient to increase the lifetime risk of cancer in the population by more than one in one million and (2) emits *non-cancer-causing* HAPs at a level in excess of that which is adequate "to protect public health with an ample margin of safety" and to prevent against environmental harm. *Id*. § 7412(c)(9)(B). The section 7412(c)(9) process is known as "delisting."

In 1998, the EPA identified several area source boiler subcategories—including oil-fired, industrial wood, commercial oil-fired and commercial wood-combustion boilers—as contributors to the "90 per centum of the aggregate emissions" of Hg and POM under section 7412(c)(6). *See* Source Category Listing for Section 112(d)(2) Rulemaking Pursuant to Section 112(c)(6) Requirements, 63 Fed. Reg. 17,838, 17,839 (Apr. 10, 1998). When it decided to "list" these sources, however, the EPA included a caveat. It explained that it used the best emissions information it had at the time to conclude that these boiler subcategories produced enough Hg and POM emissions to justify section 7412(c)(6) control but it also admitted that it could not "assure that this calculation of the 90 percent will remain constant." *Id*. at 17,840.

The caveat proved prescient. When the EPA issued the 2010 Proposed Area Boilers Rule, it decided it needed to regulate only coal-fired boilers at the MACT level to control 90 per cent of Hg emissions. *See* 75 Fed. Reg. at 31,898. And when it finalized the 2011 Area Boilers Rule, the Agency similarly decided that it needed to regulate only coal-

fired boilers at the MACT level to control 90 per cent of POM emissions. *See* 76 Fed. Reg. at 15,566.

For this reason, the EPA established GACT, rather than MACT, standards for the oil-fired and biomass-fired area source subcategories regarding these two pollutants. *See id*. It did not, however, make any of the "delisting" findings required by section 7412(c)(9) when it removed these area source subcategories from section 7412(c)(6)'s purview. *See* 2011 Area Boilers Rule, 76 Fed. Reg. at 15,566 ("[W]e have not removed or 'delisted' oil-fired and biomass-fired area source boilers by this action. We are not promulgating MACT-based regulations at this time because they are unnecessary to meet the requirements of CAA section 112(c)(6)."). The Environmental Petitioners challenge the EPA's imposition of GACT standards, arguing that, because once the EPA "listed" these sources under section 7412(c)(6)'s MACT requirement, the CAA mandates that the EPA "delist" them under section 7412(c)(9) before putting them under the more lenient GACT standards. In their view, the EPA's contrary approach fails at *Chevron* step 1. The EPA responds that section 7412(c)(9) applies only if it decides to "delist" a subcategory entirely from section 7412 regulation, resulting in neither MACT nor GACT restrictions.

Because section 7412(c)(9) does not unambiguously apply to section 7412(c)(6) and because the EPA's interpretation of section 7412(c)(9)'s delisting requirement is reasonable, we uphold the EPA's decision as permissible under *Chevron* step 2. Section 7412(c)(9) provides that the EPA "may delete any source category from the list under this subsection" on its finding that the source category is

not a threat to human health or the environment. 42 U.S.C. § 7412(c)(9)(B). The inclusion of a singular "list" to govern "this subsection" seems, most naturally, to refer to the list contemplated by section 7412(c)(1), which states that the EPA "shall publish, and shall from time to time . . . revise . . . *a list* of all categories and subcategories of . . . area sources (listed under paragraph (3))." *Id*. § 7412(c)(1) (emphasis added). In other words, it appears that section 7412(c)(1) directs the EPA to create one "list" of source categories and subcategories to subject to emission controls and section 7412(c)(9) instructs how to remove source categories from that list. This conclusion finds support in section 7412(c)(1)'s cross reference to "paragraph (3)" of section 7412(c), which lays out the circumstances under which the EPA "shall list" area source categories for emissions control. *Id*. § 7412(c)(3).

In the Environmental Petitioners' view, section 7412(c)(9) also applies to a second, subsidiary list—that contemplated by section 7412(c)(6), requiring imposition of the MACT standard. Granted, section 7412(c)(6) mandates that the EPA "shall . . . list" source categories and subcategories if doing so is necessary to control 90 per cent of the aggregate emissions from seven enumerated pollutants. *Id*. § 7412(c)(6) (emphasis added). But the use of the verb "list" in section 7412(c)(6) does not unambiguously establish that 7412(c)(9), titled "[d]eletions from the list," applies. Because section 7412(c)(9) is ambiguous, we defer to the EPA so long as its interpretation is "based on a permissible construction." *Chevron*, 467 U.S. at 842–43. And the EPA's reading of section 7412(c)(9)—that it applies only if the EPA wants to remove a category from *all* section 7412 regulation—is reasonable.

First, the EPA's approach harmonizes sections 7412(c)(1), 7412(c)(3), and 7412(c)(9). Because the EPA must find that an area source "presents a threat of adverse effects to human health or the environment" before it regulates the source category at all, *id*. § 7412(c)(3), it makes sense to require the EPA to find that "no source in the category or subcategory . . . exceed[s] a level which is adequate to protect public health . . . and no adverse environmental effect will result from emissions from any source" before it completely deregulates that category, *id*. § 7412(c)(9). It makes less sense to require the EPA to make the same findings before it opts for GACT instead of MACT standards, which occurs when the EPA removes a source from section 7412(c)(6)'s purview but continues to regulate it under section 7412(c)(1).

Second, the EPA's approach is consistent with our decision in *New Jersey*, 517 F.3d 574. There, we held that "the only way EPA could remove [a source category] from the section [7412(c)(1)] list was by satisfying section [7412(c)(9)'s] requirements." *Id*. at 582. In other words, *New Jersey* held that the EPA cannot remove a source category from all section 7412 regulation without delisting it; it said nothing about the process by which the EPA moves source categories from section 7412(c)(6).

Finally, the Petitioners' argument would freeze the EPA's decision as to which sources need to be controlled to reach the requisite 90 per cent emissions reduction for the section 7412(c)(6) pollutants until it determines that "no source in the category or subcategory . . . exceed[s] a level which is adequate to protect public health . . . and no adverse environmental effect will result from emissions from

any source." 42 U.S.C. § 7412(c)(9). This, in turn, would hamper the EPA's ability to respond to updated data, thereby substantially complicating its attempts to control the pollutants. Nothing in the CAA suggests that the Congress intended to so hamstring the Agency.

G. TITLE V PERMIT EXEMPTION FOR SYNTHETIC BOILERS

The EPA has discretion to exempt one or more area source categories from Title V permitting requirements upon a finding "that compliance with such requirements is impracticable, infeasible, or unnecessarily burdensome on such categories." 42 U.S.C. § 7661a(a). The EPA originally proposed exempting some area source categories because existing "testing, monitoring, notification, and recordkeeping requirements" rendered Title V permitting cumulative. 2010 Proposed Area Boilers Rule, 75 Fed. Reg. at 31,910. At the time, however, the EPA elected not to exempt synthetic area sources as one of those categories. *Id*. at 31,913. Synthetic area sources are boilers that "naturally" emit pollutants at a major source level but which qualify as area sources due to the voluntary adoption of air pollution control technologies. *Id*. Despite its initial stance, the EPA ultimately decided to exempt *all* area sources—including synthetic area sources—from Title V's permitting requirements. *See* 2011 Area Boilers Rule, 76 Fed. Reg. at 15,578.

Environmental Petitioners argue the EPA's decision to exclude synthetic boilers from Title V licensing requirements is arbitrary and capricious for two reasons. First, they say, the EPA arbitrarily concluded synthetic area sources would bear the same level of burden as other area sources in

complying with Title V permitting requirements, rather than a lesser one. *See* No. 11-1141 Envtl. Pet'rs' Br. 39–43. And second, they contend the EPA arbitrarily dismissed the additional compliance benefits of Title V licensing for these synthetic sources. *See id*. at 43–47. Under *State Farm*, "an agency rule [is] arbitrary and capricious if the agency . . . offered an explanation of its decision that runs counter to the evidence before the agency." 463 U.S. at 43. A court may not accept an agency's "*post hoc* rationalizations" for its decisionmaking. *Id*. at 49.

The EPA has authority under the CAA to exempt sources from Title V permitting requirements if those requirements would be "impracticable, infeasible, or unnecessarily burdensome" on the area source. 42 U.S.C. § 7661a(a). The EPA previously developed a four-factor balancing test to determine whether Title V's requirements are "unnecessarily burdensome." *See* Exemption of Certain Area Sources from Title V Operating Permit Programs, 70 Fed. Reg. 75,320, 75,323 (Dec. 19, 2005). Under this test, the EPA considers whether: (1) Title V permitting would result in significant improvements in compliance with emission standards; (2) whether Title V permitting would impose significant burdens on the area source category; (3) whether the costs are justified, taking into account potential gains; and (4) whether there are existing enforcement programs in place sufficient to ensure compliance. *See id*. at 75,323–26. The EPA also must consider, consistent with the legislative history of the CAA, whether exemption would "adversely affect public health, welfare, or the environment." *Id*. at 75,333–34. These factors are considered in combination and not every factor must point in favor of exemption for the EPA to choose that course. *See id*. at 75,323.

In its 2010 Proposed Area Boilers Rule, the EPA applied this balancing test and excluded almost all area source boilers *except* synthetic boilers that achieved "area" status via installation of a control technology (although it exempted those that achieved "area" status through operational changes). The EPA provided an extensive rationale for its decision to exclude these "natural" area sources from Title V's permitting requirements. *See* 2010 Proposed Area Boilers Rule, 75 Fed. Reg. at 31,910–13. With respect to factor one, the EPA found its proposed rule already required "direct monitoring of emissions," both continuously and periodically, recordkeeping that would allow for additional monitoring, and "semi-annual reporting to assure compliance." *Id*. at 31,911. Moreover, under the proposed rule, "records are required to be maintained in a form suitable and readily available for expeditious review" for up to five years. *Id*. The EPA acknowledged Title V permitting could provide some additional compliance benefits; specifically, that Title V has an every-six-month monitoring and reporting requirement. *See id*. But the EPA ultimately concluded the monitoring, recordkeeping, and reporting requirements of its proposed rule were sufficient to assure compliance: "Given the nature of the operations at most area sources and the types of requirements in this rule, Title V would not significantly improve those compliance requirements." *Id*.

As to the second factor, the EPA noted that subjecting most area sources to Title V would "impose[] certain burdens and costs that do not exist outside of the [t]itle V program." *Id*. at 31,912. One of the EPA's major concerns was that "requiring permits for the large number of area sources could, at least in the first few years of implementation,

potentially adversely affect public health, welfare, or the environment by shifting [s]tate agencies[’] resources away from assuring compliance for major sources with existing permits to issuing new permits for these area sources, potentially reducing overall air program effectiveness.” *Id*. at 31,913. For the third factor, the EPA concluded the costs of compliance would “impose a significant burden on many of the approximately 137,000 facilities affected by this proposed rule” with only “low” potential gains in compliance. *Id*. at 31,912. Finally, for the fourth factor, the EPA determined that “[s]tate delegated programs are sufficient to assure compliance with this [rule],” and noted that the Agency retains authority to enforce this rule “anytime.” *Id*. The EPA therefore proposed exempting these area sources from the permitting requirements. *See id*. Environmental Petitioners are not currently challenging the exemption for non-synthetic area boilers.

However, in this 2010 rulemaking, the EPA also explained precisely why it declined to exempt synthetic area sources that installed air pollution controls from Title V requirements. First, the EPA noted these synthetic area sources “represent less than one percent of the total number of sources that will be subject to the final rule.” *Id*. at 31,913. The EPA also characterized these sources as “much more like the major sources” that are not exempt from Title V permitting requirements. *Id*. Further distinctions included that “many of these sources are located in cities, and often in close proximity to residential and commercial centers where large numbers of people live and work,” that they “have significantly higher emissions potential when uncontrolled” (even compared to synthetic boilers that adopted operational limits to attain area source

status), and that many of these sources "are large facilities with comprehensive compliance programs in place" as opposed to small facilities, like schools or hospitals. *Id*. Given these distinctions, the EPA concluded additional public involvement and compliance oversight through Title V was "important to ensure that these sources are maintaining their emissions at the area source level." *Id*.

But the EPA shifted its position in the 2011 Area Boilers Rule by deciding to exempt all area sources, including synthetic sources. *See* 76 Fed. Reg. at 15,578. The EPA provided only a cursory explanation for this shift, noting how a further review of the record led it to conclude "observations and data we have relied upon in other rulemakings for distinguishing between sources that became synthetic area sources due to controls and other synthetic and natural area sources *[do] not necessarily* apply to this source category." *Id*. (emphasis added). Because the EPA asserted it no longer had "sufficient information" to identify control-technology-dependent synthetic sources, it decided to apply the same rationale used to exempt "natural" sources to these synthetic sources. *Id*. ("[T]he rationale for exempting most area sources subject to this rule . . . is also now relevant for sources which we proposed to permit [under Title V]."). But—even if the EPA truly cannot distinguish between synthetic sources relying on control technologies and other sources—it does not invariably follow that the justifications the Agency relied on for exempting "natural" sources under the four-factor balancing test can be transposed onto these synthetic sources. *Cf. Sierra Club II*, 479 F.3d at 884 ("We agree with the Sierra Club that EPA's use of work practice standards instead of emission floors violates section

7412(h). That provision allows EPA to substitute work practice standards for emission floors only if measuring emissions levels is technologically or economically impracticable. Here, EPA never determined that measuring emissions from ceramic kilns was impracticable; it determined only that it lacked emissions data from ceramics kilns. EPA thus had no basis under section 7412(h) for using work practice standards.”).

In its next iteration of the rule, the EPA endeavored to further explain its exemption of synthetic sources. The EPA again stated it “lacked sufficient information” to distinguish these synthetic sources from other area sources. *See* 2011 Proposed Area Boilers Rule on Reconsideration, 76 Fed. Reg. at 80,538. The Sierra Club challenged this exemption in a comment, and the EPA responded with “additional analysis” of the synthetic exemption. *Id*. In this analysis, the EPA first reiterated the difference in number between the two types: estimating there to be at least 48 control-technology-dependent synthetic sources versus 137,000 other area sources, most of which are located at small facilities like schools, hospitals, and churches. *See id*. The EPA then provided a new rationale for the exemption: that these synthetic facilities “may already have a Title V permit for other reasons.” *Id*. The EPA also found that “synthetic area sources would *likely* be subject to more stringent permit and monitoring requirements than natural area sources” because they have a “legal duty to use the control equipment” to keep them at an “area” level. *Id*. (emphasis added). Finally, the EPA made several assertions about the similarities between synthetic and natural sources. Specifically, that synthetic sources are “similar in size and sophistication to

those that are natural area sources," that their "uncontrolled emissions are generally on the same order of magnitude as the emissions of natural sources," and that "the facilities and owners are comparable in size." *Id*. The EPA provided no data or examples in support of these assertions, which appear to directly contradict the distinctions the EPA listed in its earlier version of the rule. *Compare id.*, *with* 2010 Proposed Area Boilers Rule, 75 Fed. Reg. at 31,913. In its final rule, the EPA declined to make any changes to its Title V exemptions—exempting all area sources including synthetic sources using a control technology. *See* 2013 Area Boilers Rule, 78 Fed. Reg. at 7,497.

Based on this record, the EPA's reasoning has several fatal flaws that render its exemption decision arbitrary. The EPA put forward two primary justifications for exempting synthetic sources: (1) that it could not necessarily rely on existing data for distinguishing the different type of sources, and (2) that these facilities are "similar in size and sophistication" to natural area sources. *See* 2011 Proposed Area Boilers Rule on Reconsideration, 76 Fed. Reg. at 80,538. The second justification flatly contradicts the EPA's earlier, extensive discussion about how these synthetic sources have higher emissions potential and are often located on large sites with existing compliance programs, in addition to being uniquely few in number and generally found near cities. 2010 Proposed Area Boilers Rule, 75 Fed. Reg. at 31,912–13. These factors all undercut the EPA's assertion that synthetic sources are "similar"—in size, sophistication, or otherwise—to natural sources. With respect to the lack of data for distinguishing, the EPA was able to estimate in its proposed rule that 48 synthetic sources would have

been affected by this rule—which suggests the EPA possesses some mechanism for distinguishing the types. *See* 2011 Proposed Area Boilers Rule on Reconsideration, 76 Fed. Reg. at 80,538. Moreover, the EPA does not explain why the data it used in prior rulemakings to distinguish these source types is not accurate in this context. Environmental Petitioners also point out that, "to qualify for area-source status, synthetic area sources must notify the EPA or the state permitting authority of the limits on their emissions," such that the EPA "need only ask these authorities to identify the sources operating in their states." No. 11-1141, Envtl. Pet'rs' Br. 39-40. The EPA never endeavors to explain why that mechanism (or any other existing mechanism) is insufficient for identifying synthetic area sources.

Because its justifications for the final rule contradict earlier findings, the EPA must provide some reasoning to explain why its final decision "runs counter to the evidence before the agency." *State Farm*, 463 U.S. at 43. The EPA's proffered explanation fails. This court has "often declined to affirm an agency decision if there are unexplained inconsistencies in the final rule." *See Dist. Hosp. Partners*, 786 F.3d at 59; *see also Gulf Power Co. v. FERC*, 983 F.2d 1095, 1101 (D.C. Cir. 1993) ("[W]hen an agency takes inconsistent positions . . . it must explain its reasoning."); *Gen. Chem. Corp. v. United States*, 817 F.2d 844, 846 (D.C. Cir. 1987) (holding agency action to be arbitrary because its analysis was "internally inconsistent and inadequately explained"). The EPA had a duty here to examine and justify the "key assumptions" underlying its decision, and it failed to do so. *See Appalachian Power Co. v. EPA*, 135 F.3d 791, 818 (D.C. Cir. 1998) ("EPA retains a duty to examine key assumptions as

part of its affirmative burden of promulgating and explaining a nonarbitrary, non-capricious rule." (internal quotation marks omitted)).

The EPA's major oversight was its failure to explain why the rationale it used to exempt natural area sources from Title V could be identically applied to synthetic area sources. One of the Agency's main justifications for exempting natural area sources was that their prolific numbers might overwhelm state and local regulatory agencies, diverting resources from other important environmental programs, thereby harming public health and welfare. The EPA never explained why requiring 48 synthetic area sources to comply with Title V would strain government resources to a comparable degree as would requiring the 137,000 natural area sources to comply. As discussed above, the EPA also did not explain how it suddenly determined these synthetic area sources were "similar in size and sophistication" to natural sources, when it had previously articulated several key differences. It is particularly unclear how these synthetic sources could have "uncontrolled emissions . . . generally on the same order of magnitude as the emissions of natural area sources." 2011 Proposed Area Boilers Rule on Reconsideration, 76 Fed. Reg. at 80,538. Given that synthetic sources are defined as "major" sources that have artificially reduced their emissions to an "area" level, it is difficult to understand how the *uncontrolled* emissions of these sources would be similar to natural area sources. Additionally, the EPA asserted that synthetic source "facilities and owners are comparable in size" to natural sources. *Id*. This contradicts earlier findings that synthetic sources tend to be large, located on sites with existing compliance plans, and near population-

dense areas. The EPA provides no data or explanation to support this shift.

The EPA relies on another problematic premise when it claims the potential benefits of subjecting synthetic area sources to Title V requirements are low. Both the EPA and Industry Intervenors argue that the added benefits of Title V would be minimal for these synthetic sources, relying solely on the rationale given for natural sources. But the EPA originally asserted "additional public involvement and compliance assurance requirements through title V [are] *important* to ensure that these sources are maintaining their emissions at the area source level." 2010 Proposed Area Boilers Rule, 75 Fed. Reg. at 31,913 (emphasis added). The EPA never explains why these additional benefits were considered "important" before but are now "not important" simply because it allegedly determined that synthetic sources may be hard to distinguish from natural sources. The difficulty in identifying synthetic sources says nothing about the benefits that may be gained by requiring Title V permits, assuming the sources can be identified. Synthetic sources retain the attributes which first motivated the EPA to subject them to Title V permitting: they tend to be near cities, specifically near large residential populations, and they have greater emission potential if their control technology is removed, turned off, or not kept up to standards. The EPA arguably finds Title V's additional compliance benefits unnecessary because synthetic sources have "a legal duty to use the control equipment" and that use is "not optional." 2011 Proposed Area Boilers Rule on Reconsideration, 76 Fed. Reg. at 80,538. But that observation does not speak to the need for public oversight; just because facilities are obligated to use

the control technology does not mean they will always do so. Title V's process requires facilities to submit compliance documentation every six months—far more frequently than under the EPA's current rule—which expands the opportunity for public oversight and compliance. Perhaps this "legal duty" provides a stronger incentive for compliance than public oversight but, if so, the EPA still fails to explain how.

Similarly, for factor three's balancing of costs and benefits, the EPA never justifies applying to natural sources— which tend to be small sites like schools, hospitals, and churches—the same rationale it applies to these larger synthetic sources, which tend to be located at refineries, chemical plants, and factories. Given these distinctions, it is at least possible this balancing would lead to a different outcome for synthetic sources. Taken as a whole, the EPA's analysis fails to explain why several of the facts and characteristics it relied on for its initial assessment are no longer relevant—creating several glaring inconsistencies in the rulemaking record. The EPA offers no plausible reason for applying the results of the four-factor test for natural sources wholesale to these control-technology-dependent synthetic sources. We do not hold, however, that the EPA can never remove synthetic area sources from the ambit of Title V compliance. The outcome the EPA ultimately reached may be reasonable; however, "[n]ot only must an agency's decreed result be within the scope of its lawful authority, but the process by which it reaches that result must be logical and rational." *Allentown Mack Sales & Serv., Inc. v. NLRB*, 522 U.S. 359, 374 (1998). The EPA should have applied its four-factor balancing test directly to synthetic sources or, at a minimum, provided an

explanation for adopting the natural source balancing test that is not premised on inconsistencies in the record.

With respect to remedy, there is a strong possibility that the Agency can properly explain its decision to exclude synthetic boilers from the Title V permitting requirement; moreover, vacating the decision would be unnecessarily disruptive for synthetic boiler operators who, in the interim, would not know whether they needed to begin the expensive, time-consuming process of obtaining a Title V permit. *See Allied-Signal, Inc. v. U.S. Nuclear Regulatory Comm'n*, 988 F.2d 146, 150–51 (D.C. Cir. 1993). We therefore remand this issue (without vacating) for further explanation by the EPA.

H. GACT STANDARD DETERMINATIONS

With few exceptions, the EPA has broad discretion to choose how to control area source emissions. For instance, the EPA has discretion to choose between GACT and MACT standards in the majority of cases. *See* 42 U.S.C. § 7412(d)(5). Even if the EPA chooses a MACT standard, it has discretion—although somewhat circumscribed—to set a work-practice standard instead of a numeric standard. *Id*. § 7412(h)(1). And the EPA has discretion when choosing among different GACT-standard options. *See id*. § 7412(d)(5).

Accordingly, we must uphold the EPA's GACT-standard determinations so long as it "has considered the relevant factors and articulated a rational connection between the facts found and the choice made, and has not relied on [improper] factors." *Nat'l Ass'n of Clean Air Agencies*, 489 F.3d

at 1228 (citations and internal quotation marks omitted). But for all of the discretion the EPA enjoys, it must nonetheless demonstrate that it exercised its judgment in a reasoned way. The cases establishing this principle are legion. *See, e.g.*, *Transactive Corp. v. United States*, 91 F.3d 232, 236 (D.C. Cir. 1996) (agency must "identif[y] and explain[] the reasoned basis for its decision"); *Int'l Fabricare Inst.*, 972 F.2d at 389 (agency must "examine[] the relevant data and . . . articulate[] an adequate explanation for its action"). The EPA need not go to great lengths to meet its burden; indeed, we "uphold a decision of less than ideal clarity" so long as "the agency's path may reasonably be discerned." *State Farm*, 463 U.S. at 43 (quoting *Ark.-Best Freight Sys., Inc.*, 419 U.S. at 286).

With these principles in mind, we address the Environmental Petitioners' two challenges to the EPA's discretionary decisions regarding the Area Boilers Rule.

1. EPA's Selection of GACT Standards for Non-Hg Metals

The Environmental Petitioners argue that the EPA failed to support its decision-making when it established MACT standards for Hg and POM emissions from some coal-fired boilers but declined to regulate *non*-Hg emissions under the MACT standard from the same boilers. We agree. Although the EPA thoroughly explained why it chose to impose one GACT standard instead of another, nothing in the record explains why the EPA decided to impose GACT standards instead of MACT standards in the first place. Despite the Agency's broad discretion, we cannot sustain its action in the absence of some explanation for why GACT standards are more

appropriate than MACT standards for these sources and types of pollutants. *See Transactive Corp.*, 91 F.3d at 236. For this reason, we remand (but do not vacate) the EPA's choice of GACT standards for non-Hg emissions from coal- fired boilers. *See Sierra Club*, 167 F.3d at 664; *Nat'l Lime Ass'n*, 233 F.3d at 634–35.

2. EPA's Selection of Certain GACT Standards

The Environmental Petitioners also challenge several of the EPA's choices among different GACT standards. As noted, *see supra* § I.A.1.c, the CAA provides virtually no instruction regarding GACT standards but the standards generally take the form of "methods, practices and techniques which are commercially available and appropriate for application by the sources in the category considering economic impacts and the technical capabilities of the firms to operate and maintain the emissions control systems." S. REP. NO. 101-228, at 171 (1989). Because the EPA has ample discretion to choose the appropriate GACT standard, we will affirm its choices so long as we can discern reasoned decision-making from the record. *State Farm*, 463 U.S. at 43. For the reasons set forth below, we can do so here and, accordingly, we reject the Environmental Petitioners' GACT-focused challenges.

First, the Environmental Petitioners challenge the data set the EPA used to arrive at the numeric GACT standards for non-Hg-metal emissions from coal-fired boilers. Specifically, they contend that the EPA set the GACT limit based on boilers with no control technology, which resulted in a numeric standard of 0.42 lb/mmBtu. They insist that the EPA should instead have examined boilers outfitted with fabric filters, which would have resulted in a

numeric standard of 0.03 lb/mmBtu. The EPA, however, thoroughly explained why it considered the uncontrolled boiler data set. Specifically, the controlled data set derives from the EPA's "New Source Performance Standards" (NSPS) data, which, in the Agency's view, could be used to set the non-Hg-metal GACT standard for boilers with a heat input capacity of 30 mmBtu/hr or greater but did not suffice for boilers with a lower heat input capacity. For this reason, the EPA examined its original data set, found that none of the coal-fired boilers in that set used control technology and, accordingly, set the GACT numeric standard at the emissions level achieved by the best performing uncontrolled source in that data set (i.e., 0.42 lb/mmBtu). We are satisfied that the EPA exercised its discretion in a reasoned manner and, accordingly, we do not disturb it. *See Transactive Corp.*, 91 F.3d at 236.

Next, the Environmental Petitioners challenge the EPA's decision to establish a tune-up requirement as a GACT management-practice standard for Hg and POM emissions from large biomass-fired and oil-fired boilers. In their view, other, more restrictive control technologies, including multiclones,[38] are "generally available" and their availability mandates that the EPA set numeric standards based on boilers that use those controls. But the EPA explained its approach:

> A boiler tune-up requirement would potentially result in the same non-mercury metallic

---

[38] A multiclone is a PM "mechanical separator[]." *See* 2010 roposed Area Boilers Rule, 75 Fed. Reg. at 31,908. It diverts particles from the exhaust stream by creating a circular air flow. *See id*.

> HAP reduction as a PM emission limit based on performance of multiclones but would also reduce emissions of organic HAP. In addition the cost of a boiler tune-up appears minimal compared to the cost for testing and monitoring to demonstrate compliance with an emission limit.

See 2010 Proposed Area Boilers Rule, 75 Fed. Reg. at 31,908. The EPA also explained that multiclones were "minimally effective" for controlling non-Hg metals, ineffective for POM and Hg, and expensive. *Id*. Because the EPA's decision to impose a tune-up requirement fits within its "technical expertise," we owe the Agency an "extreme degree of deference" so long as its explanation is rational. *Catawba Cty., N.C. v. EPA*, 571 F.3d 20, 41 (D.C. Cir. 2009) (quoting *City of Waukesha v. EPA*, 320 F.3d 228, 247 (D.C. Cir. 2003)). And because its explanation was rational, we reject the Petitioners' challenge thereto.

Finally, the Petitioners challenge the EPA's decision to set a tune-up requirement as a management-practice standard for small biomass-fired and oil-fired area boilers. The EPA adopted this approach because measuring PM emissions for smaller boilers is "not feasible." 2010 Proposed Area Boilers Rule, 75 Fed. Reg. at 31,906. When the EPA explained its decision regarding small *biomass*-fired and *oil*-fired area boilers, it provided the same reasons it gave for its use of a tune-up requirement for small *coal*-fired area boilers, which we address (and uphold), *infra*, § IV.M. For those reasons, we reject the challenge to the EPA's tune-up requirement for small biomass-fired and oil-fired area boilers.

I. 30-DAY ROLLING AVERAGE

As discussed, *see supra* § I.B.1.a, when the EPA sets a MACT floor, it begins by examining data generated by stack testing. Once the MACT standard is established, however, a source may (and in some cases, must) demonstrate compliance by implementing "continuous monitoring" instead of conducting additional stack tests.[39] *See* 2011 Proposed CISWI Rule on Reconsideration, 76 Fed. Reg. at 80,464–65. For a source using a continuous monitor, the EPA determines MACT-standard compliance based on the source's thirty-day "rolling average." *Id*. at 80,465.

The calculation of a thirty-day rolling average is straightforward: the average of a source's daily emissions for the immediately preceding thirty days. Each day produces a new rolling average and each "average is a separate compliance determination." No. 11-1125 EPA Br. 88 n.17. In the EPA's view, this "allow[s] operators sufficient flexibility for operational and control device adjustments should they be needed for short term fuel or waste characteristics variability." 2011 Proposed CISWI Rule on Reconsideration, 76 Fed. Reg. at 80,465. The EPA also concluded that thirty-day rolling average violations will occur almost as frequently as violations of shorter rolling-average periods. *Id*. The CAA vests the EPA with authority to "prescribe procedures and

---

[39] As the name suggests, a continuous monitoring system measures the source's emissions at all times and generally takes one of two forms: (1) a continuous parameter monitor, which measures, *e.g.*, a source's temperature, pressure or oxygen content; or (2) a continuous emissions monitor, which measures the pollutant concentration in the source's emissions.

methods for determining compliance and for monitoring and analysis of pollutants." 42 U.S.C. § 7661c(b). We have emphasized that the EPA has "broad discretion in selecting a monitoring regime that ensures compliance, and as long as it reasonably articulate[s] the basis for its decision, [we] will defer to the informed discretion of the Agency, recognizing that analysis of this issue requires a high level of expertise." *White Stallion Energy Ctr., LLC v. EPA*, 748 F.3d 1222, 1255 (D.C. Cir. 2014) (per curiam) (citation and internal quotation marks omitted), *rev'd on other grounds by Michigan v. EPA*, 135 S. Ct. 2699 (2015). Notwithstanding this deference, the Environmental Petitioners argue that allowing a source to demonstrate compliance by way of a thirty-day rolling average not only fails *Chevron* review but is also arbitrary. We disagree.

First, they argue that the thirty-day rolling average fails at *Chevron* step 1 because it allows sources to emit HAPs continuously at the UPL-established MACT floor. Because they do not believe that the UPL represents the average emissions level achieved by the best performing sources, they argue that, *ipso facto*, allowing sources to continuously emit HAPs at the UPL level means that sources are permitted to emit at levels higher than the average levels achieved by the best performing sources. Because we have already concluded that the UPL is in fact a reasonable proxy for the average emissions level achieved by the best performing sources, *see supra* § IV.C, the Environmental Petitioners' premise is inaccurate. And because the "total emissions from a unit complying with a rolling average must still be below the total emissions from a unit emitting continuously at the level of the standard," No. 11-

1125 EPA Br. 90, the Environmental Petitioners' *Chevron* step 1 argument fails.

The Environmental Petitioners' *Chevron* step 2 argument fares no better. The EPA explained that (1) it expects to catch violations using a thirty-day rolling average "almost as much as for a shorter term average" and (2) it believes the longer average to be more effective in addressing "[c]oncerns of variability outside the operators['] control such as fuel content, seasonal factors, load cycling, and infrequent hours of needed operation." 2011 Proposed CISWI Rule on Reconsideration, 76 Fed. Reg. at 80,465. Because the EPA "reasonably articulate[d] the basis for its decision," we uphold it. *White Stallion*, 748 F.3d at 1255 (internal quotation marks omitted).

Finally, we conclude that the EPA's allowance of thirty-day rolling averaging does not reflect an arbitrary change in position. Although the Petitioners cite other rules that, in their view, manifest that the EPA once believed that longer averaging periods resulted in less stringent enforcement, most of the rules they cite have nothing to do with MACT-setting or MACT compliance[40] and

---

[40] The only exception is the EPA's 1996 Medical-Waste Incinerators Rule, which provides that "[t]he period of time over which emissions are measured and then averaged to determine compliance with the regulation . . . must correspond to the period of time over which emission levels were measured and averaged in determining the emission limits included in the regulation." Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Medical Waste Incinerators, 61 Fed. Reg. 31,736, 31,748 (June 20, 1996). This twenty-year-old statement, however, does not detract from the EPA's well-reasoned defense of the thirty-day rolling average in the CISWI Rule.

none evidences an unexplained or unjustified deviation. Similarly, the Petitioners point to the EPA's explanation in the 2011 CISWI Rule that "24-hour block averages . . . would be inconsistent with the sampling time for the stack test data" to indicate an arbitrary change in position. *See* 76 Fed. Reg. at 15,728. But the EPA made this statement while discussing why stack-test data and continuous-monitoring data could not be used in tandem to *set* a MACT level, which says nothing about allowing emissions averaging—long-term or otherwise—to gauge MACT-floor *compliance*. *See id*. And even if the Environmental Petitioners had directed us to a real about-face, the EPA's justification for allowing the thirty-day rolling average convinces us that any change was not arbitrary.

J. FUEL-COMBUSTION-BASED SUBCATEGORIES

Section 7412 provides that the EPA may distinguish among "classes, types, and sizes" of sources when establishing emission standards. 42 U.S.C. § 7412(c), (d)(1). Under this authority, the EPA created subcategories of major source boilers based on the fuel the boiler was designed to burn. 2013 Major Boilers Rule, 78 Fed. Reg. at 7,144. The Environmental Petitioners challenge this decision on three grounds: First, they claim that the text of the statute forecloses the EPA from creating such subcategories. Next, they argue that the EPA's subcategories are arbitrary because they permit a boiler to switch subcategories from year to year. Finally, they contend that the EPA's action was arbitrary because the Agency failed to demonstrate with substantial evidence that burning a different fuel alters the boiler's class, type, or size.

These arguments fail. Section 7412(d) gives the EPA discretion to create subcategories based on boiler type, and nothing in the statute forecloses the Agency from doing so based on the type of fuel a boiler was designed to burn. Nor was the EPA's decision to create such subcategories arbitrary and capricious. The Agency considered the relevant factors in coming to a reasoned decision that the type of fuel a boiler is designed to burn impacts the feasibility of emission standards. And, finally, the EPA based its technical judgment on sufficient record evidence. As a result, we deny the Environmental Petitioners' challenge to the EPA's subcategorization of major source boilers based on the type of fuel the boiler is designed to burn.

The Environmental Petitioners first claim that the text of the CAA forecloses the EPA from creating subcategories of "types" of boilers based on the fuel a boiler burns because a single boiler may use different fuels over the course of its lifetime. This may be true, but the Petitioners never explain what it is about the word "type" that bars the EPA from regulating a boiler that burns "x" differently from a boiler that burns "y." According to its ordinary meaning, "type" is easily broad enough to accommodate changes in boiler characteristics from year to year. *See* OXFORD ENGLISH DICTIONARY (2013) (defining "type" as a "general form, structure, or character distinguishing a particular kind, group, or class of beings or objects"). There is no textual reason then to assume that a boiler's type must be written in stone.

Nor does our understanding of "type" write it out of the statute, as the Petitioners contend. The EPA has done what the term plainly encompasses: it has distinguished among boilers based on the kind of fuel

the boiler burned over the last year. It is thus not surprising that we have interpreted a similar provision to permit distinctions based on fuel inputs. *See Sierra Club v. Costle*, 657 F.2d 298, 318–19 (D.C. Cir. 1981) (holding that the text of 42 U.S.C. § 7411, which allows the EPA to "distinguish among classes, types and sizes," permits distinctions based on variations in the sulfur content of coal used by utility plants). Likewise, we conclude that section 7412's undefined and unrestricted use of class, type, or size does not foreclose the EPA's interpretation.

This court will, as a result, defer to the EPA's interpretation so long as it is reasonable. *See, e.g.*, *Sierra Club I*, 353 F.3d at 990. And here, it is. The Agency explained that boilers vary in their designs depending on the type of fuel they burn. 2010 Proposed Major Boilers Rule, 75 Fed. Reg. at 32,016–17. These differences, according to the Agency, affect boiler emissions and the feasibility of emission controls. *Id*. And, because design constraints also restrict a boiler's ability to switch fuels, the Agency concluded that it could determine a boiler's type by looking at the fuel it had burned over the previous 12-month period. *Id*. at 32,014. The Environmental Petitioners point to nothing in the record that calls into question either of these technical judgments, which receive great deference. *See NRDC I*, 489 F.3d at 1375. Nor do the Petitioners offer any additional reasons in support of their argument that the Agency has ventured beyond its authority under the statute. In fact, the EPA's reasoning from the emissions data is consistent with the very existence of a subcategorization authority because the grant of this authority implicitly acknowledges that the EPA may need to set different emission standards within a category of major sources based on what is

achievable for a subset of those sources. Because the statutory text readily encompasses the EPA's interpretation for the reasons explained above, and because the Environmental Petitioners offer no additional argument as to why the EPA's interpretation was unreasonable, we reject the Petitioners' *Chevron* challenge to the EPA's interpretation of its subcategorization authority.

The Environmental Petitioners nevertheless claim that the EPA's subcategories are arbitrary because a boiler is not of a different type when it can be a boiler "designed to burn coal" one year, and a boiler "designed to burn biomass" the next. But this argument fails for the same reasons as the *Chevron* argument we just rejected. The fact that boilers may switch from one type to another over time does not, alone, render a subcategorization arbitrary. With no discernable basis to find the EPA's choice here questionable, much less arbitrary, we reject this argument too.

Finally, the Environmental Petitioners contend that the Agency failed to demonstrate with sufficient evidence, rather than mere assertions, that burning a different fuel makes the boiler a different class, type, or size. The Petitioners largely fail to develop this argument and, regardless, the EPA easily met its burden. The EPA based its decision on documented emissions data, several reports provided by the National Energy Technology Laboratory on boiler operations, and operating manuals provided by boiler manufacturers. *See, e.g.*, Summary of Public Comments and Responses for National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, EPA-HQ-OAR-2002-

0058-3511-A1 (Dec. 2012), at 558–63. These sources support the EPA's decision to distinguish boilers based on the type of fuel they are designed to burn and the Agency's conclusion that boilers designed for one fuel type are unlikely to use another fuel type. *Id*. The Petitioners present no contrary evidence, nor do they attack the validity or accuracy of the data that the EPA relied upon. We thus find no merit in the Petitioners' various challenges to the EPA's decision to subcategorize major boilers based on the fuel the boiler is designed to burn.

K. "UNITS THAT BEGIN COMBUSTING SOLID WASTE" AS "EXISTING" SOURCES

Section 7429(a)(2) distinguishes between "existing" and "new" CISWI units. The former must comply with floors set at the "average emissions limitation achieved by the best performing 12 percent of units" and the latter must comply with stricter floors set at the level achieved by "the best controlled similar unit." 42 U.S.C. § 7429(a)(2). "Modified" units, defined as units "at which modifications have occurred" that either experience changes that cost more than 50 per cent of the original construction price or result in increased emissions, *see id*. § 7429(g)(3), must be treated as "new," *see id*. § 7429(g)(2).

The preamble to the 2011 CISWI Rule states, "[u]nits that begin combusting solid waste are considered *existing* sources." 76 Fed. Reg. at 15,714 (emphasis added). Commentators objected that this blanket statement contravened the Act's plain terms, which mandate that the EPA treat such sources as "new," not "existing," if they meet the section 7429(g)(3) requirements. In its subsequent 2011 Proposed CISWI Rule on Reconsideration, the EPA

refined its position: "An existing source will not be considered a new source solely due to a combustion material switch. Assuming new source applicability is not triggered, existing sources that change fuels or materials are considered existing sources . . . ." 76 Fed. Reg. at 80,459.

The Environmental Petitioners argue that the EPA's broad statement in the 2011 CISWI Rule indicates that it impermissibly changed its treatment of "modified sources" in contravention of the CAA. The EPA, however, agrees that any CISWI unit fitting the statutory criteria for a modified source must comply with new-unit MACT levels, not existing-unit MACT levels. *See* 42 U.S.C § 7429(g)(2). It also recognizes that its categorical statement in the 2011 CISWI Rule "may have been imprecise" and, in any event, it argues that the Environmental Petitioners have taken its statement out of context. *See* No. 11-1125 EPA Br. 73.

We agree with the Agency. The EPA's later statement made clear that it intended to treat "sources that change fuels or materials" as "existing sources" unless "new source applicability," as mandated by the Act, is "triggered." *See* 2011 Proposed CISWI Rule on Reconsideration, 76 Fed. Reg. at 80,459. Moreover, the Agency provided its more precise statement while discussing specifically what constitutes a "modification" for the CISWI Rule. *See id*. ("An existing source will not be considered a new source solely due to a combustion material switch."). It made its earlier, "imprecise" comment, in contrast, while describing when a fuel change could mean the difference between regulation under section 7412 or section 7429. *See* 2011 CISWI Rule, 76 Fed. Reg. at 15,714. Convinced that the

EPA has not impermissibly changed the statutory definition of "modified" CISWI, we reject the Petitioners' challenge.

L. EXCLUSION OF "TEMPORARY" BOILERS FROM AREA BOILERS RULE

In the final 2013 Area Boilers Rule, the EPA excluded "temporary boilers" from regulation under section 7412. *See* 78 Fed. Reg. at 7,491. The Rule defined "temporary boilers" as "any gaseous or liquid fuel boiler that is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers, or platforms." *Id*. Moreover, a boiler is not a temporary boiler if any of the following apply:

(1) The equipment is attached to a foundation.

(2) The boiler or a replacement remains at a location within the facility and performs the same or similar function for more than 12 consecutive months, unless the regulatory agency approves an extension. An extension may be granted by the regulatory agency upon petition by the owner or operator of a unit specifying the basis for such a request. Any temporary boiler that replaces a temporary boiler at a location within the facility and performs the same or similar function will be included in calculating the consecutive time period unless there is a gap in operation of 12 months or more.

(3) The equipment is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least 2 years, and operates at that facility for at least 3 months of each year.

(4) The equipment is moved from one location to another within the facility but continues to perform the same or similar function and serve the same electricity, steam, and/or hot water system in an attempt to circumvent the residence time requirements of this definition.

2013 Area Boilers Rule, 78 Fed. Reg. at 7,491–92.

Environmental Petitioners challenge this exclusion as a violation of the EPA's obligations under the CAA to regulate all boilers listed under section 7412. By its own terms, the 2011 Area Boilers Rule "applies to all existing and new industrial boilers, institutional boilers, and commercial boilers located at area sources. Boiler means an enclosed combustion device having the primary purpose of recovering thermal energy in the form of steam or hot water." 76 Fed. Reg. at 15,557; *see also* 76 Fed. Reg. at 15,554 ("EPA is promulgating national emission standards for control of hazardous air pollutants from two area source categories: Industrial boilers and commercial and institutional boilers."). Environmental Petitioners claim the general term "boiler" necessarily encompasses temporary boilers: "[T]he category of 'boilers' plainly includes temporary boilers, just as the category of 'courts' includes federal courts, or the category of

'dogs' includes brown dogs." No. 11-1141, Envtl. Pet'rs' Reply Br. 7. According to Petitioners, then, sections 7412(c) and 7412(d) of the CAA require the EPA to issue emission standards for temporary boilers as well as "permanent" boilers. *See* 42 U.S.C. § 7412(c)(2) ("For the categories and subcategories the Administrator lists, the Administrator shall establish emission standards . . . ."); *id.* § 7412(d)(1) ("The Administrator shall promulgate regulations establishing emission standards for each category or subcategory of major sources and area sources of hazardous air pollutants listed for regulation . . . .").

To the extent Environmental Petitioners challenge as unreasonable the EPA's justifications for declining to set emission standards for temporary boilers, they cannot prevail. "Under arbitrary-and-capricious review, EPA's determinations are presumptively valid provided [they] meet[] a minimum rationality standard." *Nat'l Ass'n for Surface Finishing*, 795 F.3d at 7 (internal quotation marks omitted). So the question is whether the EPA offered a sufficiently rational explanation for its exclusion of temporary boilers. The EPA has done so here. First, contrary to Petitioners' claims, temporary boilers were never considered an inexorable part of the "industrial boiler" category section 7412 requires the EPA to regulate. While the EPA only listed generic area source categories—"industrial boilers" and "institutional/commercial boilers"—in its 1999 rulemaking, it has since refined these broad categories pursuant to its statutory authority. *See* National Air Toxics Program: The Integrated Urban Strategy, 64 Fed. Reg. 38,706, 38,721 tbl.2 (July 19, 1999). In doing so, the EPA excluded several other subgroups of boilers that might otherwise be read as falling under one of the general boiler categories. *See, e.g.*, 2013 Area

Boilers Rule, 78 Fed. Reg. at 7,492 (excluding boilers already regulated by other MACT standards); 2011 Proposed Area Boilers Rule on Reconsideration, 76 Fed. Reg. at 80,539 (excluding electric and residential boilers as not part of either source category). The EPA's clarification that temporary boilers were never considered part of the "industrial boilers" category was simply another refinement, as contemplated by the statute. *See* 42 U.S.C § 7412(e)(4) (precluding judicial review until the EPA has issued its final emission standards for a category or subcategory).

Second, as both the EPA and Industry Intervenors note, the parallel rule for major source boilers has always explicitly excluded temporary boilers from its "industrial boiler" categorization. *See* 40 C.F.R. § 63.7491(j). The EPA thus considered commenters' requests to add a similar clarification to the 2013 Area Boilers Rule and reasonably decided to do so. *See, e.g.*, American Forest & Paper Association, Comments on Proposed Area Source Rule (AF&PA Comments), EPA-HQ-OAR-2006-0790-1939 (Aug. 23, 2010), at 58 (No. 11-1141 J.A. 389). EPA explained this choice in its proposed rule:

> Owners and operators of regulated sources have pointed out that temporary boilers are small (less than 10 MMBtu/hr heat input) and are generally owned and operated by contractors, rather than the facility. As a result, they are not included in the facility's operating permits because state and federal CAA operating permit programs have historically classified such units as insignificant sources. The owners and operators also noted that compliance with the work practice

> requirements applicable to these small boilers would be complicated because they are typically located on site for less than a year, but would be subject to biennial management practice requirements. We agree that the source category identified in subpart JJJJJJ should specifically exclude these temporary boilers because they have been considered insignificant sources, and were not included in the EPA's analysis of the source category.

2011 Proposed Area Boilers Rule on Reconsideration, 76 Fed. Reg. at 80,535.

The unique nature of temporary boilers favors their exclusion. These boilers tend to be rented for use on a temporary basis and come in "shop-fabricated package designs." AF&PA Comments, at 58 (No. 11-1141 J.A. 389). Temporary boilers also "typically only fire gas or liquid fossil fuels (natural gas or distillate oil) which may be cleaner than the boiler(s) they are temporarily replacing. In addition, these units often do not have exhaust stacks that meet EPA Method 1 requirements for application of test methods." *Id*. Regardless, during the rulemaking, Environmental Petitioners argued the EPA had "not explained why this is a distinction that justifies differential treatment, let alone an exemption." *See* Area Boilers Rule—Responses to Comments, at 65. The EPA responded by explaining that rather than having "created a category or subcategory of 'temporary boilers' and then exempted them from the standards," the Agency never "intend[ed] to regulate temporary boilers under the area source standards" in the first place. *See id*. The EPA further noted that, "[b]y their nature of being temporary, these boilers operate in place of another non-temporary boiler

while that boiler is being constructed, replaced or repaired, in which case we counted the non-temporary boiler as the one being regulated." *Id*. Finally, the Agency concluded regulation of temporary boilers was not necessary to meet its statutory emission requirements under sections 7412(c)(6) and 7412(c)(3) of the CAA. *Id*. In its final rule, the EPA reiterated this explanation: "Similar to residential boilers, we did not intend to regulate temporary boilers under the area source standards because they are not part of either the industrial boiler source category or the commercial/institutional boiler source category." 2013 Area Boilers Rule, 78 Fed. Reg. at 7,491. The final regulation also included a detailed explanation of how EPA decided on its limited definition of "temporary boilers." *See id*. at 7,499.

The evidence before the Agency supported its decision to exclude temporary boilers. Indeed, the EPA "cogently explain[ed]" why it exercised its discretion in this manner, such that this court concludes the Agency's choice "was the product of reasoned decision making." U.*S. Telecom Ass'n v. FCC*, 227 F.3d 450, 460 (D.C. Cir. 2000). We therefore uphold the EPA's exclusion of temporary boilers from regulation of area source boilers.

M. WORK-PRACTICE STANDARDS FOR COAL-FIRED BOILERS

When setting emission limits for area sources, the EPA enjoys greater discretion than when setting limits for major sources. With respect to major sources, the EPA has to promulgate MACT standards, *see* 42 U.S.C. § 7412(d)(2), whereas for area sources the EPA can generally promulgate more lenient GACT standards, *see id*. § 7412(d)(5). The

CAA, however, singles out seven particularly hazardous pollutants that require stricter regulatory standards, even for area sources.[41] Under section 7412(c)(6), the EPA must "list categories and subcategories of sources assuring that sources accounting for not less than 90 per centum of the aggregate emissions of each such pollutant" are regulated. The EPA listed a variety of area sources under section 7412(c)(6) in its 1998 rulemaking based on their Hg and POM emissions. *See* Proposed 2010 Area Boilers Rule, 75 Fed. Reg. at 31,898; Source Category Listing for Section 112(d)(2) Rulemaking Pursuant to Section 112(c)(6) Requirements, 63 Fed. Reg. 17,838, 17,849–50 (Apr. 10, 1998). But the Agency subsequently refined that list and ultimately concluded only *coal-fired* area boilers needed to be listed to meet the statute's 90 per cent emissions threshold. *See* 2010 Proposed Area Boilers Rule, 75 Fed. Reg. at 31,898; *see also* No. 11-1141 EPA Br. 14 ("[T]he coal-fired subcategory is responsible for over 82 percent of the mercury emissions from the [area source] category in the inventory, even though it represents only 2 percent of the boilers in the category.").

Under section 7412(c)(6), the EPA was therefore required to set either a MACT limit under section 7412(d)(2), a health threshold under section 7412(d)(4), or a work-practice standard under section 7412(h) for all coal-fired boilers. The Agency chose to

---

[41] These seven pollutants are: (i) alkylated lead compounds, (ii) polycyclic organic matter (POM), (iii) hexachlorobenzene, (iv) mercury (Hg), (v) polychlorinated biphenyls, (vi) 2,3,7,8- tetrachlorodibenzofurans, and (vii) 2,3,7,8-tetrachlorodibenzo-pdioxin. *See* 42 U.S.C. § 7412(c)(6).

set MACT numerical emission limits for Hg and CO[42] at new and existing large coal-fired boilers. 2013 Area Boilers Rule, 78 Fed. Reg. at 7,488. However, the EPA found it "technologically and economically impracticable to apply [its] measurement methodology to . . . small sources," and so it chose to institute a work-practice standard[43] for all new and existing small coalfired boilers. *Id*. at 7,488–89. This work-practice standard requires small coal-fired units to be periodically tuned up but does not impose any numeric emission limit. *See id*. The EPA similarly decided that, for large coal-fired boilers undergoing a startup or a shutdown, a work-practice standard—rather than a numeric emission standard—was most practicable. *See id*. at 7,518 tbl.2 (requiring owners of large "[e]xisting or new coal-fired" boilers to "[m]inimize the boiler's startup and shutdown periods and conduct startups and shutdowns according to the manufacturer's recommended procedures").

Environmental Petitioners challenge the EPA's decision to employ work-practice standards as a violation of 7412(d)(2)'s mandate to achieve the "maximum degree of reduction in emissions." We examine Petitioner's statutory argument step-by-

---

[42] Because the EPA chose to regulate POM emissions indirectly—by using CO emissions as a surrogate—the standards it set under section 7412(c)(6) are for CO rather than POM. *See* 2013 Area Boilers Rule, 78 Fed. Reg. at 7,488, 7,503.

[43] In their brief, Environmental Petitioners alternate between the terms "operational standards" and "work-practice standards," both of which fall under section 7412(d)(2)(D). This opinion will use "work-practice standards" for simplicity.

step, as it hinges on the interplay between several statutory provisions. First, section 7412(c)(6)—which governs regulation of Hg and POM emissions—requires the Administrator to regulate sources of these pollutants under either section 7412(d)(2) or (d)(4). Section 7412(d)(4) allows the Administrator to establish health-based emission standards; it is not implicated here. Instead, the EPA decided to regulate coal-fired boilers under section 7412(d)(2). Section 7412(d)(2) instructs the Administrator to achieve "the maximum degree of reduction in emissions of the hazardous air pollutants . . . that the Administrator, taking into consideration the cost of achieving such emissions reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for new or existing sources." The Administrator is authorized to use several means to achieve this reduction including implementing "design, equipment, work practice, or operational standards . . . as provided in [section 7412(h)]." 42 U.S.C. § 7412(d)(2)(D). Section 7412(h)(1) states: "[I]f it is not feasible in the judgment of the Administrator to prescribe or enforce an emission standard for control of a [pollutant], the Administrator may, in lieu thereof, promulgate a . . . work-practice standard . . . , which in the Administrator's judgment is consistent with the provisions of subsection (d) or (f) of this section." Petitioners do not dispute the EPA's ability to set work-practice standards here; they instead focus on section 7412(h)'s requirement that any such standards be "consistent with" subsection (d)—which requires the "maximum degree of reduction in emissions." According to Petitioners, the EPA's decision to set these particular work-practice standards fails at both *Chevron* steps.

With respect to *Chevron* step 1, Petitioners argue the "EPA does not claim the operational standards [for coal-fired boilers] are 'consistent with the provisions of subsection (d) or (f)' of § 7412." No. 11-1141 Envtl. Pet'rs' Br. 33. In other words, because these work-practice standards "do not even purport" to be consistent with section 7412(d)'s mandate to maximize reduction of emissions, "they are unlawful under *Chevron* step one." *Id*. Petitioners point to the EPA's specific findings to support this claim: for large coal-fired boilers, the EPA found that mercury emissions could be reduced by 75 to 82 per cent through the use of a fabric filter. *Id*. But, according to Petitioners, the "EPA admits the tune-up program [for small coal-fired boilers] will reduce emissions by only one percent." *Id*. And, with respect to large coal-fired boilers undergoing startup or shutdown, Petitioners argue the "EPA does not claim that 'following the manufacturer's recommended procedures' during startup and shutdown will reduce emissions at all." *Id*.

At the familiar *Chevron* step 1, the court must "first examine the statute *de novo*, employing traditional tools of statutory construction." *Nat'l Ass'n of Clean Air Agencies*, 489 F.3d at 1228 (internal quotation marks omitted). If the Congress's intent is clear, then the Agency's interpretation is afforded no deference, and the court "must give effect to the unambiguously expressed intent of Congress." *Id*.

In this case, Environmental Petitioners place too much emphasis on certain snippets of the statute without examining the larger context. For one, Petitioners seem to argue that the EPA must adopt work-practice standards that result in the maximum

possible reduction of emissions, without taking into account any other considerations. But section 7412(d)(2) itself belies this claim: it says the EPA must promulgate standards that require "the maximum degree of reduction in emissions . . . *that the Administrator, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable*." 42 U.S.C. § 7412(d)(2) (emphasis added). This portion of the statute explicitly defers to the Administrator's judgment regarding a standard's "achievability," even though it directs him to consider particular factors in making that assessment. Section 7412(h) similarly requires the Administrator to adopt a work-practice standard that *in his judgment* is consistent with section 7412(d)(2)'s mandate. We therefore cannot accept Petitioners' suggestion that Congress unambiguously required the EPA to adopt standards that result in the maximum reduction of emissions that is technologically feasible.

Environmental Petitioners' challenge to these work-practice standards as unreasonable under *Chevron* step 2 and arbitrary under *State Farm* presents a closer call. With respect to *Chevron* step 2, the court must "uphold an agency's interpretation if it is reasonable." *Ariz. Pub. Serv. Co. v. EPA*, 211 F.3d 1280, 1287 (D.C. Cir. 2000). And, "even where EPA's construction satisfies *Chevron*, [the court] still must ensure that its action is not otherwise arbitrary and capricious. The arbitrary and capricious standard is '[h]ighly deferential,' and it 'presumes the validity of agency action.'" *Nat'l Ass'n of Clean Air Agencies*, 489 F.3d at 1228 (citations omitted). As long as an agency has "considered the relevant factors and articulated 'a rational connection

between the facts found and the choice made,'" then its decision must be upheld. *Allied Local & Reg'l Mfrs. Caucus*, 215 F.3d at 68.

Petitioners mount both a "facial" and a substantive challenge to the EPA's rationale for adopting work-practice standards. First, Petitioners claim the EPA's decision is arbitrary because it fails "to reconcile its approach with the statutory requirement [of section 7412(d)(2)]." No. 11-1141 Envtl. Pet'rs' Br. 34. Specifically, Petitioners insist the EPA must explicitly state somewhere that these particular work-practice standards are "consistent" with section 7412(d)(2). *See id*. at 33–34. Otherwise, Petitioners contend, the Court must simply "assume that the Agency heeded § 7412(h)'s 'consistent with' requirement, notwithstanding the EPA's failure to acknowledge and apply that requirement in the record." No. 11-1141 Envtl. Pet'rs' Reply Br. 10.

The Agency responds that, "by identifying the tune-up and startup/shutdown requirements as 'work practices,' [it] is stating that those standards are issued under section 7412(h) and are consistent with the requirements of section 7412(d) (i.e., MACT)." No. 11-1141, EPA Br. 71. The EPA did acknowledge it has an obligation to maximize emission reductions under section 7412(d)(2) when promulgating work-practice standards. *See* 2011 Area Boilers Rule, 76 Fed. Reg. at 15,568 ("CAA section 112(h) authorizes the Administrator to promulgate [a work-practice standard] consistent with the provisions of CAA sections 112(d) or (f) . . . ."). However, Petitioners are correct that the Agency did not make a finding on the record that these work-practice standards would achieve the highest emissions reduction possible.

But the lack of an explicit statement does not automatically condemn this portion of the rule. *See Bowman*, 419 U.S. at 286 ("[W]e will uphold a decision of less than ideal clarity if the agency's path may reasonably be discerned."). The Petitioners offer no support for their contention that the EPA must make an express finding that its standards are "consistent" with section 7412(d)(2). Nor does our conclusion requires us to merely "assume" that the Agency's actions comport with section 7412(d)(2). Instead, as we usually do when presented with such arguments, we review the rulemaking record to determine whether the justifications the EPA offered for adopting these work practices standards were permissible.

1. Small Coal-Fired Boilers

First, with respect to small coal-fired boilers, the EPA determined that a biennial tune-up requirement would best comply with section 7412(h)'s requirements. As a starting point, the EPA surveyed a sample of state regulations mandating various work-practice standards for small coal-fired boilers; the Agency found that ten states required tune-ups, two required periodic inspections, one required operator training, and one required operation in accordance with manufacturer specifications. 2011 Area Boilers Rule, 76 Fed. Reg. at 15,573–74. The EPA thus concluded that tune-ups were the most typical work-practice standard employed for this type of boiler. *Id*. The Agency also found that regular tune-ups could lower HAP emissions by increasing the efficiency of small coal-fired boilers. *See id*. at 15,575 ("A tune-up performed to the manufacturer's specifications would ensure the highest energy efficiency and reduce fuel usage, which will

ultimately reduce HAP emissions."); *see also* 2010 Proposed Area Boilers Rule, 75 Fed. Reg. at 31,908 ("A boiler tune-up provides potential savings from energy efficiency improvements and pollution prevention. . . . In addition, the cost of a boiler tune-up appears minimal compared to the cost for testing and monitoring to demonstrate compliance with an emission limit.").[44]

The EPA elected to implement a work-practice standard because the typical method used to measure emissions of Hg and CO could not be used to sample emissions from stacks with small diameters (less than 12 inches). *See* 2011 Area Boilers Rule, 76 Fed. Reg. at 15,568. Because many small coal-fired boilers have stacks with diameters below 12 inches—and because many of these boilers "do not currently have sampling ports or a platform for accessing the exhaust stack"—the Agency concluded the cost of testing and monitoring these small boilers would "present an excessive burden for smaller sources." *Id*. The Agency's consideration of cost effectiveness is particularly appropriate in this context because the "vast majority" of area source boilers are "generally owned and operated by small entities," which would be disproportionately burdened by a numeric emissions limit. See Fact Sheet: Final Adjustments to the Air Toxics Standards for Industrial, Commercial, and

---

[44] The EPA's discussion of boiler tune-up advantages occurs mainly in the context of its decision to select a GACT standard rather than any numeric emission standards for certain boilers. Environmental Petitioners challenge this decision on similar grounds, *see supra* § IV.H. But the benefits of periodic tune-ups also apply to the coal-fired boilers at issue here.

Institutional Boilers at Area Source Facilities, 1, 2 (No. 11-1141 J.A. 684–85); *see also* 2010 Proposed Area Boilers Rule, 75 Fed. Reg. at 31,906 ("The results of the analysis indicate that total compliance costs exceed 3 percent (and can reach as high as 19 percent) of the average firm revenues for 79 percent of the facilities.").

Environmental Petitioners counter that while tune-ups may minimally reduce HAP emissions, they do not maximize this reduction per section 7412(d)(2)'s mandate.[45] But Petitioners view section 7412(d) too myopically; under that section, the Administrator is empowered to adopt standards that "tak[e] into consideration the cost of achieving such emission reduction." 42 U.S.C. § 7412(d)(2). The EPA here examined the costs of imposing a numeric emission standard on small coal-fired boilers and found that option "not feasible" due to high costs and monitoring difficulties, considerations equally permissible under section 7412(d)(2). Petitioners argue that requiring the use of a fabric filter would have resulted in greater reductions, but they are unable to point to any small coal-fired boiler that currently uses such a filter. *See* 2010 Proposed Area Boilers Rule, 75 Fed.

---

[45] Petitioners also point to a comment they made in the record arguing that a tune-up standard "would not achieve emission reductions that are consistent with the definition of MACT," and urge that the EPA never addressed these concerns. *See* National Association of Clean Air Agencies, Comments on EPA Proposals for Regulation of Hazardous Air Pollutants (HAPS), EPA-HQ-OAR-2006-0790, EPA-HQ-OAR-2002-0058, EPA-HQ-OAR-2003-0119 (Aug. 23, 2010), at 21–22 (No. 11-1141 J.A. 417–18). But this comment was specifically addressed to *gas-fired* boilers, and it is inapposite to the EPA's consideration of standards for coal-fired boilers.

Reg. at 31,906 ("For existing [small] area source boilers, the only work practice being used that potentially controls mercury and POM emissions is a boiler tune-up."). Evidence before the agency in fact indicated that the best performing small coal boilers for POM emission use no add-on controls. *See* Memorandum from Amanda Singleton & Brandon Long, Eastern Research Group, to Jim Eddinger, EPA (MACT/GACT Mem.), App. E-2a (No. 11-1141 J.A. 540). It was therefore reasonable for the EPA, when considering costs, to conclude that biennial tune-ups would allow for the maximum "achievable" reduction in emissions.

Petitioners' most compelling argument involves the EPA's lack of data on small coal-fired boilers. As they point out, the EPA's summary of its 2008 combustion survey makes no mention of any small coal-fired boilers. *See* MACT/GACT Mem., App. D-3, tbl.1 (No. 11-1141 J.A. 523). And the EPA never directly addressed whether control technologies, such as fabric filters, were useable by small boilers; "[t]he only claim EPA made in the record is that tuneups are the most effective option that [small] coal-fired boilers . . . are *currently* using, not that tune-ups yield the maximum reduction 'achievable.'" No. 11-1141 Envtl. Pet'rs' Reply Br. 11. In *Sierra Club II*, this court agreed with Sierra Club's challenge to the EPA's use of a work-practice standard instead of an emission floor because the "EPA never determined that measuring emissions from ceramics kilns was impracticable; it determined only that it lacked emissions data from ceramics kilns. EPA thus had no basis under section 7412(h) for using work practice standards." 479 F.3d at 884. That context is somewhat distinguishable, given that the statute there explicitly required the EPA to make a

"feasibility" finding (as discussed above), but it could be argued that the EPA here lacked the data to determine whether tune-ups were "consistent with" section 7412(d)(2).

Ultimately, though, the high level of deference afforded the EPA counsels in favor of upholding this work-practice standard. Although the EPA did not explicitly state that tune-ups were the best option to reduce emissions while still "considering costs," this finding can be inferred from the record as a whole. For instance, the EPA found that "[n]one of the States for which we have an inventory have an applicable emissions limit" for small coal-fired boilers, except New Jersey, which actually has tune-ups as its work-practice standard. 2010 Proposed Area Boilers Rule, 75 Fed. Reg. at 31,909. Based on these findings, it can reasonably be inferred that—given the prevalence of these small boilers—at least a *few* would be using a control technology if that were technologically or economically feasible. Because numeric emissions cannot easily be measured from these smaller sources and the costs of outfitting them with such technology would be cost prohibitive, the EPA's choice of tune-ups as the work-practice standard is sufficiently reasonable to uphold under both *Chevron* step 2 and *State Farm*. The Agency's choice is consistent with section 7412(h)'s "feasibility" requirement and with section 7412(d)(2)'s instruction to maximize emission reductions while also considering costs.

2. Large Coal-Fired Boilers Undergoing Startup or Shutdown

The record for large coal-fired boilers undergoing startup or shutdown is less extensive but again the EPA's determination is reasonable. While large coal-

fired boilers are required to meet numeric emission standards during "normal" operations, the EPA adopted a work-practice standard for the temporary periods of startup and shutdown. *See* 40 C.F.R. § 63.11214 ("[M]inimize the boiler's startup and shutdown periods following the manufacturer's recommended procedures, if available. If manufacturer's recommended procedures are not available, you must follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available."). Environmental Petitioners contend that the EPA never stated this practice would reduce emissions at all, and therefore it has not met its burden under section 7412(d)(2). But we have already explained that no *express* finding of consistency with section 7412(d)(2) need be made. Here, the record suggests that the work-practice standard the Agency chose would reduce emissions, and we therefore can "reasonably [] discern[]" the Agency's path. *Bowman*, 419 U.S. at 286. Specifically, the EPA explained that requiring boilers to operate in startup and shutdown mode for "sufficient time to conduct the required test runs [to impose numeric standards] could result in higher emissions than would otherwise occur." 2011 Major Boilers Rule, 76 Fed. Reg. at 15,642. Industry stakeholders also pointed out that "it is very common . . . for certain control devices to be out of operation during periods of start-up due to the nature of the equipment." *See* American Chemistry Council, Comments on EPA's Proposed Rule for National Emission Standards for Hazardous Air Pollutants for Area Sources, EPA-HQ-OAR-2006-0790 (Aug. 23, 2010), at 31 (No. 11-1141 J.A. 386). Because the control technology is temporarily offline, "it is likely that emissions will exceed the standards proposed

[during that time period]." *Id*. A work-practice standard that requires facilities to minimize the time their boilers spend in startup or shutdown thus seems calculated to maximally reduce emissions during those periods—and Petitioners fail to provide any viable alternative. We therefore conclude the EPA's decision to adopt these work-practice standards for large coal-fired boilers during startup and shutdown was reasonable.

V. CONCLUSION

For the foregoing reasons, we grant the petitions in part and deny them in part. Specifically, we vacate the MACT standards for all major boiler subcategories that would have been affected had the EPA considered all sources included in the subcategories, as explained at *supra* § IV.B. We also remand, without vacatur, to the EPA to: (1) adequately explain how CO acts as a reasonable surrogate for nondioxin/furan organic HAPs; (2) set emission standards for cyclonic burn barrels; (3) determine whether burn-off ovens, soil treatment units, and space heaters are CISWI units and, if so, to set standards for those types of units; (4) adequately explain the exclusion of synthetic boilers from Title V's permitting requirements; and (5) adequately explain the choice of GACT standards over MACT standards for non-Hg metals.

So ordered.

APPENDIX B

UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

◆

Decided December 23, 2016

◆

No. 11-1108

◆

UNITED STATES SUGAR CORPORATION, PETITIONER

v.

ENVIRONMENTAL PROTECTION AGENCY, RESPONDENT

AMERICAN CHEMISTRY COUNCIL, ET AL., INTERVENORS

◆

Consolidated with 11-1124, 11-1134, 11-1142, 11-1145, 11-1159, 11-1165, 11-1172, 11-1174, 11-1181, 13-1086, 13-1087, 13-1091, 13-1092, 13-1096, 13-1097, 13-1098, 13-1099, 13-1100, 13-1103

◆

On Petition for Review of Final Action of the United States Environmental Protection Agency

◆

Before: Henderson, Brown, and Griffith, *Circuit Judges*.

Opinion for the Court filed PER CURIAM.

PER CURIAM: Among the many challenges to the EPA's Major Boilers Rule1[1] in these consolidated cases, we granted the petition brought by the Environmental Petitioners to review the EPA's decision to exclude certain sources from its calculation of Maximum Achievable Control Technology (MACT) emissions standards for major-boiler subcategories, and vacated any standards that had been "affected" by the flawed calculation. *U.S. Sugar Corp. v. EPA*, 830 F.3d 579, 632 (D.C. Cir. 2016).

On September 12, 2016, the EPA filed a petition for a panel rehearing asking that the major-boiler standards be "remanded to [the] EPA without vacatur for the Agency to conduct rulemaking to determine which standards are 'affected' and to modify them in accordance with the Court's opinion." EPA Pet. Reh'g 1. All relevant parties in this matter support the EPA's request. Joint Resp. Industry Pet'rs 3; Envtl. Pet'rs' Resp. 1.

Although remand without vacatur may in some circumstances invite prejudicial agency delay, *see, e.g.*, *In re Core Commc'ns, Inc.*, 531 F.3d 849, 862–63 (D.C. Cir. 2008) (Griffith, J., concurring), in other circumstances vacatur itself carries more-harmful consequences. We have therefore frequently remanded without vacating when a rule's defects are curable and "where vacatur 'would at least temporarily

---

[1] National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, 76 Fed. Reg. 15,608 (Mar. 21, 2011), *as amended*, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, 78 Fed. Reg. 7,138 (Jan. 31, 2013).

defeat . . . the enhanced protection of the environmental values covered by [the EPA rule at issue].'" *North Carolina v. EPA*, 550 F.3d 1176, 1178 (D.C. Cir. 2008) (per curiam) (alterations in original) (quoting *Envtl. Def. Fund, Inc. v. EPA*, 898 F.2d 183, 190 (D.C. Cir. 1990)); *see also Natural Res. Def. Council v. EPA*, 489 F.3d 1250, 1265 (D.C. Cir. 2007) ("Where the court has concluded that a final rule is deficient, the court has traditionally not vacated the rule if doing so would have serious adverse implications for public health and the environment."). Vacating the standards at issue here would unnecessarily remove many limitations on emissions of hazardous air pollutants from boilers and allow greater emissions of those pollutants until EPA completes another rulemaking and implements replacement standards. *See* EPA Pet. Reh'g 6.

In light of our precedent and the parties' agreement that this case presents one of the circumstances in which remand without vacatur makes the most sense, we remand without vacating the numeric MACT standards set in the Major Boilers Rule for new and existing sources in each of the eighteen subcategories.[2] On remand, the EPA is to identify those standards for which the MACT floor would have differed if the EPA had included all best-performing sources in each subcategory in its MACT-floor analysis. The EPA must then revise those standards consistent with our July 29, 2016 opinion in this case.

---

[2] Because the parties agree as to the appropriate remedy, a formal rehearing is unnecessary.

Although the Industry Petitioners stress the importance of the EPA expeditiously completing the rulemaking, we have not been asked to impose a deadline by which the EPA must act. Even so, we expect the EPA to complete this rulemaking promptly. We also "remind the Petitioners that they may bring a mandamus petition to this court in the event that [the] EPA fails to" revise its standards on remand "in a manner consistent with our" earlier opinion. *North Carolina*, 550 F.3d at 1178 (citing *Natural Res. Def. Council*, 489 F.3d at 1264 (Randolph, J., concurring)).

So ordered.

APPENDIX C

UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

◆

Filed On: December 23, 2016

◆

No. 11-1108

◆

UNITED STATES SUGAR CORPORATION,
PETITIONER

v.

ENVIRONMENTAL PROTECTION AGENCY,
RESPONDENT

AMERICAN CHEMISTRY COUNCIL, ET AL.,
INTERVENORS

◆

Consolidated with 11-1124, 11-1134, 11-1142, 11-1145, 11-1159, 11-1165, 11-1172, 11-1174, 11-1181, 13-1086, 13-1087, 13-1091, 13-1092, 13-1096, 13-1097, 13-1098, 13-1099, 13-1100, 13-1103

◆

No. 11-1141

◆

AMERICAN CHEMISTRY COUNCIL,
PETITIONER

v.

ENVIRONMENTAL PROTECTION AGENCY,
RESPONDENT

AMERICAN FOREST & PAPER ASSOCIATION, ET AL.,
INTERVENORS

◆

Consolidated with 11-1182, 11-1207, 11-1208,
13-1105, 13-1107

◆

BEFORE: Garland*, Chief Judge; Henderson, Rogers, Tatel, Brown, Griffith, Kavanaugh, Srinivasan, Millett*, Pillard, and Wilkins, Circuit Judges

O R D E R

Upon consideration of the petitions of Louisiana Environmental Action Network, Sierra Club, Clean Air Council, Partnership for Policy Integrity, and Environmental Integrity Project for rehearing en banc filed in Nos. 11-1108, et al. and 11-1141, et al., the petition of American Municipal Power, Inc. for rehearing en banc filed in No. 11-1108, et al., and the absence of a request by any member of the court for a vote, it is

ORDERED that the petitions be denied.

Per Curiam

FOR THE COURT:
Mark J. Langer, Clerk

BY: /s/
Ken Meadows
Deputy Clerk

*Chief Judge Garland and Circuit Judge Millett did not participate in this matter.

APPENDIX D

UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

◆

Filed On: December 23, 2016

◆

No. 11-1108

◆

UNITED STATES SUGAR CORPORATION,
PETITIONER

v.

ENVIRONMENTAL PROTECTION AGENCY,
RESPONDENT

AMERICAN CHEMISTRY COUNCIL, ET AL.,
INTERVENORS

◆

Consolidated with 11-1124, 11-1134, 11-1142, 11-1145, 11-1159, 11-1165, 11-1172, 11-1174, 11-1181, 13-1086, 13-1087, 13-1091, 13-1092, 13-1096, 13-1097, 13-1098, 13-1099, 13-1100, 13-1103

◆

No. 11-1141

◆

AMERICAN CHEMISTRY COUNCIL,
PETITIONER

v.

ENVIRONMENTAL PROTECTION AGENCY,
RESPONDENT

AMERICAN FOREST & PAPER ASSOCIATION, ET AL.,
INTERVENORS

◆

Consolidated with 11-1182, 11-1207, 11-1208,
13-1105, 13-1107

◆

BEFORE: Henderson, Brown, and Griffith,
Circuit Judges

O R D E R

Upon consideration of the petitions for panel rehearing filed on September 12, 2016 by Louisiana Environmental Action Network, Sierra Club, Clean Air Council, Partnership for Policy Integrity, and Environmental Integrity Project in Nos. 11-1108, et al. and 11-1141, et al.; by American Municipal Power, Inc. in No. 11-1108, et al.; and by EPA in No. 11-1108, et al. as to remedy, and the responses to EPA's petition, it is

ORDERED that the petition filed by EPA be granted to the extent that the numeric MACT standards set in the Major Boilers Rule for new and existing sources in each of the eighteen subcategories be remanded without vacatur for the agency to conduct further proceedings consistent with the court's prior opinion, in accordance with the opinion issued herein this date. It is

FURTHER ORDERED that the remaining petitions be denied.

The Clerk is directed to enter a new judgment. The Clerk is further directed to issue the mandate forthwith.

Per Curiam

FOR THE COURT:
Mark J. Langer, Clerk

BY: /s/
Ken Meadows
Deputy Clerk

APPENDIX E

UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

◆

FILED: December 23, 2016

◆

No. 11-1108

◆

UNITED STATES SUGAR CORPORATION,
PETITIONER

v.

ENVIRONMENTAL PROTECTION AGENCY,
RESPONDENT

AMERICAN CHEMISTRY COUNCIL, ET AL.,
INTERVENORS

◆

Consolidated with 11-1124, 11-1134, 11-1142, 11-1145, 11-1159, 11-1165, 11-1172, 11-1174, 11-1181, 13-1086, 13-1087, 13-1091, 13-1092, 13-1096, 13-1097, 13-1098, 13-1099, 13-1100, 13-1103

◆

No. 11-1141

◆

AMERICAN CHEMISTRY COUNCIL,
PETITIONER

v.

ENVIRONMENTAL PROTECTION AGENCY,
RESPONDENT

AMERICAN FOREST & PAPER ASSOCIATION, ET AL.,
INTERVENORS

◆

Consolidated with 11-1182, 11-1207, 11-1208,
13-1105, 13-1107

◆

On Petition for Panel Rehearing

◆

Before: HENDERSON, BROWN, and GRIFFITH,
Circuit Judges

J U D G M E N T

These causes came to be heard on the petition of the Environmental Protection Agency for panel rehearing as to remedy, and the responses thereto. On consideration thereof, it is

ORDERED and ADJUDGED that the judgment of this court filed July 29, 2016 remain in effect as to No. 11-1125, et al., American Forest & Paper Association, Inc., et al. v. EPA, and the above-captioned cases, in accordance with the opinion filed July 29, 2016. It is

FURTHER ORDERED and ADJUDGED that the numeric MACT standards set in the Major Boilers Rule for new and existing sources in each of the eighteen subcategories be remanded without vacature for the agency to conduct further proceedings consistent with the court's prior opinion issued July 29, 2016, in accordance with the opinion issued here in this date.

FOR THE COURT:
Mark J. Langer, Clerk

BY: /s/
Ken Meadows
Deputy Clerk

APPENDIX F

42 U.S.C. § 7412

HAZARDOUS AIR POLLUTANTS

(a) Definitions

For purposes of this section, except subsection (r) of this section—

(1) Major source

The term "major source" means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants. The Administrator may establish a lesser quantity, or in the case of radionuclides different criteria, for a major source than that specified in the previous sentence, on the basis of the potency of the air pollutant, persistence, potential for bioaccumulation, other characteristics of the air pollutant, or other relevant factors.

(2) Area source

The term "area source" means any stationary source of hazardous air pollutants that is not a major source. For purposes of this section, the term "area source" shall not include motor vehicles or nonroad vehicles subject to regulation under subchapter II of this chapter.

(3) Stationary source

The term "stationary source" shall have the same meaning as such term has under section 7411(a) of this title.

(4) New source

The term "new source" means a stationary source the construction or reconstruction of which is commenced after the Administrator first proposes regulations under this section establishing an emission standard applicable to such source.

(5) Modification

The term "modification" means any physical change in, or change in the method of operation of, a major source which increases the actual emissions of any hazardous air pollutant emitted by such source by more than a de minimis amount or which results in the emission of any hazardous air pollutant not previously emitted by more than a de minimis amount.

(6) Hazardous air pollutant

The term "hazardous air pollutant" means any air pollutant listed pursuant to subsection (b) of this section.

(7) Adverse environmental effect

The term "adverse environmental effect" means any significant and widespread adverse effect, which may reasonably be anticipated, to wildlife, aquatic life, or other natural resources, including adverse impacts on populations of endangered or threatened species or significant degradation of environmental quality over broad areas.

(8) Electric utility steam generating unit

The term "electric utility steam generating unit" means any fossil fuel fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 megawatts electrical output to any utility power distribution system for sale shall be considered an electric utility steam generating unit.

(9) Owner or operator

The term "owner or operator" means any person who owns, leases, operates, controls, or supervises a stationary source.

(10) Existing source

The term "existing source" means any stationary source other than a new source.

(11) Carcinogenic effect

Unless revised, the term "carcinogenic effect" shall have the meaning provided by the Administrator under Guidelines for Carcinogenic Risk Assessment as of the date of enactment. Any revisions in the existing Guidelines shall be subject to notice and opportunity for comment.

(b) List of pollutants

(1) Initial list

The Congress establishes for purposes of this section a list of hazardous air pollutants as follows:

CAS number	Chemical name
75070	Acetaldehyde
60355	Acetamide
75058	Acetonitrile
98862	Acetophenone
53963	2-Acetylaminofluorene
107028	Acrolein
79061	Acrylamide
79107	Acrylic acid
107131	Acrylonitrile
107051	Allyl chloride
92671	4-Aminobiphenyl
62533	Aniline
90040	o-Anisidine
1332214	Asbestos
71432	Benzene (including benzene from gasoline)
92875	Benzidine
98077	Benzotrichloride
100447	Benzyl chloride
92524	Biphenyl
117817	Bis(2-ethylhexyl)phthalate (DEHP)
542881	Bis(chloromethyl)ether
75252	Bromoform
106990	1,3-Butadiene
156627	Calcium cyanamide
105602	Caprolactam
133062	Captan
63252	Carbaryl
75150	Carbon disulfide
56235	Carbon tetrachloride
463581	Carbonyl sulfide
120809	Catechol
133904	Chloramben

57749	Chlordane
7782505	Chlorine
79118	Chloroacetic acid
532274	2-Chloroacetophenone
108907	Chlorobenzene
510156	Chlorobenzilate
67663	Chloroform
107302	Chloromethyl methyl ether
126998	Chloroprene
1319773	Cresols/Cresylic acid (isomers and mixture)
95487	o-Cresol
108394	m-Cresol
106445	p-Cresol
98828	Cumene
94757	2,4-D, salts and esters
3547044	DDE
334883	Diazomethane
132649	Dibenzofurans
96128	1,2-Dibromo-3-chloropropane
84742	Dibutylphthalate
106467	1,4-Dichlorobenzene(p)
91941	3,3-Dichlorobenzidene
111444	Dichloroethyl ether (Bis(2-chloroethyl)ether)
542756	1,3-Dichloropropene
62737	Dichlorvos
111422	Diethanolamine
121697	N,N-Diethyl aniline (N,N-Dimethylaniline)
64675	Diethyl sulfate
119904	3,3-Dimethoxybenzidine
60117	Dimethyl aminoazobenzene
119937	3,3′-Dimethyl benzidine
79447	Dimethyl carbamoyl chloride
68122	Dimethyl formamide

57147	1,1-Dimethyl hydrazine
131113	Dimethyl phthalate
77781	Dimethyl sulfate
534521	4,6-Dinitro-o-cresol, and salts
51285	2,4-Dinitrophenol
121142	2,4-Dinitrotoluene
123911	1,4-Dioxane (1,4-Diethyleneoxide)
122667	1,2-Diphenylhydrazine
106898	Epichlorohydrin (l-Chloro-2,3-epoxypropane)
106887	1,2-Epoxybutane
140885	Ethyl acrylate
100414	Ethyl benzene
51796	Ethyl carbamate (Urethane)
75003	Ethyl chloride (Chloroethane)
106934	Ethylene dibromide (Dibromoethane)
107062	Ethylene dichloride (1,2-Dichloroethane)
107211	Ethylene glycol
151564	Ethylene imine (Aziridine)
75218	Ethylene oxide
96457	Ethylene thiourea
75343	Ethylidene dichloride (1,1-Dichloroethane)
50000	Formaldehyde
76448	Heptachlor
118741	Hexachlorobenzene
87683	Hexachlorobutadiene
77474	Hexachlorocyclopentadiene
67721	Hexachloroethane
822060	Hexamethylene-1,6-diisocyanate
680319	Hexamethylphosphoramide
110543	Hexane
302012	Hydrazine
7647010	Hydrochloric acid
7664393	Hydrogen fluoride (Hydrofluoric acid)
123319	Hydroquinone

78591	Isophorone
58899	Lindane (all isomers)
108316	Maleic anhydride
67561	Methanol
72435	Methoxychlor
74839	Methyl bromide (Bromomethane)
74873	Methyl chloride (Chloromethane)
71556	Methyl chloroform (1,1,1-Trichloroethane)
78933	Methyl ethyl ketone (2-Butanone)
60344	Methyl hydrazine
74884	Methyl iodide (Iodomethane)
108101	Methyl isobutyl ketone (Hexone)
624839	Methyl isocyanate
80626	Methyl methacrylate
1634044	Methyl tert butyl ether
101144	4,4-Methylene bis(2-chloroaniline)
75092	Methylene chloride (Dichloromethane)
101688	Methylene diphenyl diisocyanate (MDI)
101779	4,4′-Methylenedianiline
91203	Naphthalene
98953	Nitrobenzene
92933	4-Nitrobiphenyl
100027	4-Nitrophenol
79469	2-Nitropropane
684935	N-Nitroso-N-methylurea
62759	N-Nitrosodimethylamine
59892	N-Nitrosomorpholine
56382	Parathion
82688	Pentachloronitrobenzene (Quintobenzene)
87865	Pentachlorophenol
108952	Phenol
106503	p-Phenylenediamine
75445	Phosgene
7803512	Phosphine
7723140	Phosphorus

85449	Phthalic anhydride
1336363	Polychlorinated biphenyls (Aroclors)
1120714	1,3-Propane sultone
57578	beta-Propiolactone
123386	Propionaldehyde
114261	Propoxur (Baygon)
78875	Propylene dichloride (1,2-Dichloropropane)
75569	Propylene oxide
75558	1,2-Propylenimine (2-Methyl aziridine)
91225	Quinoline
106514	Quinone
100425	Styrene
96093	Styrene oxide
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin
79345	1,1,2,2-Tetrachloroethane
127184	Tetrachloroethylene (Perchloroethylene)
7550450	Titanium tetrachloride
108883	Toluene
95807	2,4-Toluene diamine
584849	2,4-Toluene diisocyanate
95534	o-Toluidine
8001352	Toxaphene (chlorinated camphene)
120821	1,2,4-Trichlorobenzene
79005	1,1,2-Trichloroethane
79016	Trichloroethylene
95954	2,4,5-Trichlorophenol
88062	2,4,6-Trichlorophenol
121448	Triethylamine
1582098	Trifluralin
540841	2,2,4-Trimethylpentane
108054	Vinyl acetate
593602	Vinyl bromide
75014	Vinyl chloride
75354	Vinylidene chloride (1,1-Dichloroethylene)
1330207	Xylenes (isomers and mixture)

95476	o-Xylenes
108383	m-Xylenes
106423	p-Xylenes
0	Antimony Compounds
0	Arsenic Compounds (inorganic including arsine)
0	Beryllium Compounds
0	Cadmium Compounds
0	Chromium Compounds
0	Cobalt Compounds
0	Coke Oven Emissions
0	Cyanide Compounds [1]
0	Glycol ethers [2]
0	Lead Compounds
0	Manganese Compounds
0	Mercury Compounds
0	Fine mineral fibers [3]
0	Nickel Compounds
0	Polycylic Organic Matter [4]
0	Radionuclides (including radon) [5]
0	Selenium Compounds

NOTE: For all listings above which contain the word "compounds" and for glycol ethers, the following applies: Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic, etc.) as part of that chemical's infrastructure.

[1] X′CN where X = H′ or any other group where a formal dissociation may occur. For example KCN or $Ca(CN)_2$.

[2] Includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol R–$(OCH2CH2)_n$–OR′ where

n = 1, 2, or 3

R = alkyl or aryl groups

R′ = R, H, or groups which, when removed, yield glycol ethers with the structure: R–(OCH2CH)$_n$–OH.

Polymers are excluded from the glycol category.

[3] Includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.

[4] Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100°C.

[5] A type of atom which spontaneously undergoes radioactive decay.

(2) Revision of the list

The Administrator shall periodically review the list established by this subsection and publish the results thereof and, where appropriate, revise such list by rule, adding pollutants which present, or may present, through inhalation or other routes of exposure, a threat of adverse human health effects (including, but not limited to, substances which are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, neurotoxic, which cause reproductive dysfunction, or which are acutely or chronically toxic) or adverse environmental effects whether through ambient concentrations, bioaccumulation, deposition, or otherwise, but not including releases subject to regulation under subsection (r) of this section as a result of emissions to the air. No air pollutant which is listed under section 7408(a) of this title may be added to the list under this section, except that the prohibition of this sentence shall not apply to any pollutant which independently meets the listing criteria of this paragraph and is a precursor to a pollutant which is listed under section 7408(a) of this title or to any pollutant which is in a class of

pollutants listed under such section. No substance, practice, process or activity regulated under subchapter VI of this chapter shall be subject to regulation under this section solely due to its adverse effects on the environment.

(3) Petitions to modify the list

(A) Beginning at any time after 6 months after November 15, 1990, any person may petition the Administrator to modify the list of hazardous air pollutants under this subsection by adding or deleting a substance or, in case of listed pollutants without CAS numbers (other than coke oven emissions, mineral fibers, or polycyclic organic matter) removing certain unique substances. Within 18 months after receipt of a petition, the Administrator shall either grant or deny the petition by publishing a written explanation of the reasons for the Administrator's decision. Any such petition shall include a showing by the petitioner that there is adequate data on the health or environmental defects of the pollutant or other evidence adequate to support the petition. The Administrator may not deny a petition solely on the basis of inadequate resources or time for review.

(B) The Administrator shall add a substance to the list upon a showing by the petitioner or on the Administrator's own determination that the substance is an air pollutant and that emissions, ambient concentrations, bioaccumulation or deposition of the substance are known to cause or may reasonably be anticipated to cause adverse effects to human health or adverse environmental effects.

(C) The Administrator shall delete a substance from the list upon a showing by the petitioner or on the Administrator's own determination that there is adequate data on the health and environmental effects of the substance to determine that emissions, ambient concentrations, bioaccumulation or deposition of the substance may not reasonably be anticipated to cause any adverse effects to the human health or adverse environmental effects.

(D) The Administrator shall delete one or more unique chemical substances that contain a listed hazardous air pollutant not having a CAS number (other than coke oven emissions, mineral fibers, or polycyclic organic matter) upon a showing by the petitioner or on the Administrator's own determination that such unique chemical substances that contain the named chemical of such listed hazardous air pollutant meet the deletion requirements of subparagraph (C). The Administrator must grant or deny a deletion petition prior to promulgating any emission standards pursuant to subsection (d) of this section applicable to any source category or subcategory of a listed hazardous air pollutant without a CAS number listed under subsection (b) of this section for which a deletion petition has been filed within 12 months of November 15, 1990.

(4) Further information

If the Administrator determines that information on the health or environmental effects of a substance is not sufficient to make a determination required by this subsection, the Administrator may use any authority available to the Administrator to acquire such information.

(5) Test methods

The Administrator may establish, by rule, test measures and other analytic procedures for monitoring and measuring emissions, ambient concentrations, deposition, and bioaccumulation of hazardous air pollutants.

(6) Prevention of significant deterioration

The provisions of part C of this subchapter (prevention of significant deterioration) shall not apply to pollutants listed under this section.

(7) Lead

The Administrator may not list elemental lead as a hazardous air pollutant under this subsection.

(c) List of source categories

(1) In general

Not later than 12 months after November 15, 1990, the Administrator shall publish, and shall from time to time, but no less often than every 8 years, revise, if appropriate, in response to public comment or new information, a list of all categories and subcategories of major sources and area sources (listed under paragraph (3)) of the air pollutants listed pursuant to subsection (b) of this section. To the extent practicable, the categories and subcategories listed under this subsection shall be consistent with the list of source categories established pursuant to section 7411 of this title and part C of this subchapter. Nothing in the preceding sentence limits the Administrator's authority to establish subcategories under this section, as appropriate.

(2) Requirement for emissions standards

For the categories and subcategories the Administrator lists, the Administrator shall establish emissions standards under subsection (d) of this section, according to the schedule in this subsection and subsection (e) of this section.

(3) Area sources

The Administrator shall list under this subsection each category or subcategory of area sources which the Administrator finds presents a threat of adverse effects to human health or the environment (by such sources individually or in the aggregate) warranting regulation under this section. The Administrator shall, not later than 5 years after November 15, 1990, and pursuant to subsection (k)(3)(B) of this section, list, based on actual or estimated aggregate emissions of a listed pollutant or pollutants, sufficient categories or subcategories of area sources to ensure that area sources representing 90 percent of the area source emissions of the 30 hazardous air pollutants that present the greatest threat to public health in the largest number of urban areas are subject to regulation under this section. Such regulations shall be promulgated not later than 10 years after November 15, 1990.

(4) Previously regulated categories

The Administrator may, in the Administrator's discretion, list any category or subcategory of sources previously regulated under this section as in effect before November 15, 1990.

(5) Additional categories

In addition to those categories and subcategories of sources listed for regulation pursuant to

paragraphs (1) and (3), the Administrator may at any time list additional categories and subcategories of sources of hazardous air pollutants according to the same criteria for listing applicable under such paragraphs. In the case of source categories and subcategories listed after publication of the initial list required under paragraph (1) or (3), emission standards under subsection (d) of this section for the category or subcategory shall be promulgated within 10 years after November 15, 1990, or within 2 years after the date on which such category or subcategory is listed, whichever is later.

(6) Specific pollutants

With respect to alkylated lead compounds, polycyclic organic matter, hexachlorobenzene, mercury, polychlorinated biphenyls, 2,3,7,8-tetrachlorodibenzofurans and 2,3,7,8-tetrachlorodibenzo-p-dioxin, the Administrator shall, not later than 5 years after November 15, 1990, list categories and subcategories of sources assuring that sources accounting for not less than 90 per centum of the aggregate emissions of each such pollutant are subject to standards under subsection (d)(2) or (d)(4) of this section. Such standards shall be promulgated not later than 10 years after November 15, 1990. This paragraph shall not be construed to require the Administrator to promulgate standards for such pollutants emitted by electric utility steam generating units.

(7) Research facilities

The Administrator shall establish a separate category covering research or laboratory facilities, as necessary to assure the equitable treatment of such facilities. For purposes of this section,

"research or laboratory facility" means any stationary source whose primary purpose is to conduct research and development into new processes and products, where such source is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce, except in a de minimis manner.

(8) Boat manufacturing

When establishing emissions standards for styrene, the Administrator shall list boat manufacturing as a separate subcategory unless the Administrator finds that such listing would be inconsistent with the goals and requirements of this chapter.

(9) Deletions from the list

(A) Where the sole reason for the inclusion of a source category on the list required under this subsection is the emission of a unique chemical substance, the Administrator shall delete the source category from the list if it is appropriate because of action taken under either subparagraphs (C) or (D) of subsection (b)(3) of this section.

(B) The Administrator may delete any source category from the list under this subsection, on petition of any person or on the Administrator's own motion, whenever the Administrator makes the following determination or determinations, as applicable:

(i) In the case of hazardous air pollutants emitted by sources in the category that may result in cancer in humans, a determination that no source in the category (or group of sources in the case of area sources) emits such hazardous

air pollutants in quantities which may cause a lifetime risk of cancer greater than one in one million to the individual in the population who is most exposed to emissions of such pollutants from the source (or group of sources in the case of area sources).

(ii) In the case of hazardous air pollutants that may result in adverse health effects in humans other than cancer or adverse environmental effects, a determination that emissions from no source in the category or subcategory concerned (or group of sources in the case of area sources) exceed a level which is adequate to protect public health with an ample margin of safety and no adverse environmental effect will result from emissions from any source (or from a group of sources in the case of area sources).

The Administrator shall grant or deny a petition under this paragraph within 1 year after the petition is filed.

(d) Emission standards

(1) In general

The Administrator shall promulgate regulations establishing emission standards for each category or subcategory of major sources and area sources of hazardous air pollutants listed for regulation pursuant to subsection (c) of this section in accordance with the schedules provided in subsections (c) and (e) of this section. The Administrator may distinguish among classes, types, and sizes of sources within a category or subcategory in establishing such standards except that, there shall be no delay in the compliance date for any standard applicable to any source under

subsection (i) of this section as the result of the authority provided by this sentence.

(2) Standards and methods

Emissions standards promulgated under this subsection and applicable to new or existing sources of hazardous air pollutants shall require the maximum degree of reduction in emissions of the hazardous air pollutants subject to this section (including a prohibition on such emissions, where achievable) that the Administrator, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for new or existing sources in the category or subcategory to which such emission standard applies, through application of measures, processes, methods, systems or techniques including, but not limited to, measures which—

(A) reduce the volume of, or eliminate emissions of, such pollutants through process changes, substitution of materials or other modifications,

(B) enclose systems or processes to eliminate emissions,

(C) collect, capture or treat such pollutants when released from a process, stack, storage or fugitive emissions point,

(D) are design, equipment, work practice, or operational standards (including requirements for operator training or certification) as provided in subsection (h) of this section, or

(E) are a combination of the above.

None of the measures described in subparagraphs (A) through (D) shall, consistent with the provisions of section 7414(c) of this title, in any way compromise any United States patent or United States trademark right, or any confidential business information, or any trade secret or any other intellectual property right.

(3) New and existing sources

The maximum degree of reduction in emissions that is deemed achievable for new sources in a category or subcategory shall not be less stringent than the emission control that is achieved in practice by the best controlled similar source, as determined by the Administrator. Emission standards promulgated under this subsection for existing sources in a category or subcategory may be less stringent than standards for new sources in the same category or subcategory but shall not be less stringent, and may be more stringent than—

(A) the average emission limitation achieved by the best performing 12 percent of the existing sources (for which the Administrator has emissions information), excluding those sources that have, within 18 months before the emission standard is proposed or within 30 months before such standard is promulgated, whichever is later, first achieved a level of emission rate or emission reduction which complies, or would comply if the source is not subject to such standard, with the lowest achievable emission rate (as defined by section 7501 of this title) applicable to the source category and prevailing at the time, in the category or subcategory for categories and subcategories with 30 or more sources, or

(B) the average emission limitation achieved by the best performing 5 sources (for which the Administrator has or could reasonably obtain emissions information) in the category or subcategory for categories or subcategories with fewer than 30 sources.

(4) Health threshold

With respect to pollutants for which a health threshold has been established, the Administrator may consider such threshold level, with an ample margin of safety, when establishing emission standards under this subsection.

(5) Alternative standard for area sources

With respect only to categories and subcategories of area sources listed pursuant to subsection (c) of this section, the Administrator may, in lieu of the authorities provided in paragraph (2) and subsection (f) of this section, elect to promulgate standards or requirements applicable to sources in such categories or subcategories which provide for the use of generally available control technologies or management practices by such sources to reduce emissions of hazardous air pollutants.

(6) Review and revision

The Administrator shall review, and revise as necessary (taking into account developments in practices, processes, and control technologies), emission standards promulgated under this section no less often than every 8 years.

(7) Other requirements preserved

No emission standard or other requirement promulgated under this section shall be interpreted, construed or applied to diminish or replace the

requirements of a more stringent emission limitation or other applicable requirement established pursuant to section 7411 of this title, part C or D of this subchapter, or other authority of this chapter or a standard issued under State authority.

(8) Coke ovens

(A) Not later than December 31, 1992, the Administrator shall promulgate regulations establishing emission standards under paragraphs (2) and (3) of this subsection for coke oven batteries. In establishing such standards, the Administrator shall evaluate—

(i) the use of sodium silicate (or equivalent) luting compounds to prevent door leaks, and other operating practices and technologies for their effectiveness in reducing coke oven emissions, and their suitability for use on new and existing coke oven batteries, taking into account costs and reasonable commercial door warranties; and

(ii) as a basis for emission standards under this subsection for new coke oven batteries that begin construction after the date of proposal of such standards, the Jewell design Thompson non-recovery coke oven batteries and other non-recovery coke oven technologies, and other appropriate emission control and coke production technologies, as to their effectiveness in reducing coke oven emissions and their capability for production of steel quality coke.

Such regulations shall require at a minimum that coke oven batteries will not exceed 8 per centum leaking doors, 1 per centum leaking lids, 5 per

centum leaking offtakes, and 16 seconds visible emissions per charge, with no exclusion for emissions during the period after the closing of self-sealing oven doors. Notwithstanding subsection (i) of this section, the compliance date for such emission standards for existing coke oven batteries shall be December 31, 1995.

(B) The Administrator shall promulgate work practice regulations under this subsection for coke oven batteries requiring, as appropriate—

(i) the use of sodium silicate (or equivalent) luting compounds, if the Administrator determines that use of sodium silicate is an effective means of emissions control and is achievable, taking into account costs and reasonable commercial warranties for doors and related equipment; and

(ii) door and jam cleaning practices.

Notwithstanding subsection (i) of this section, the compliance date for such work practice regulations for coke oven batteries shall be not later than the date 3 years after November 15, 1990.

(C) For coke oven batteries electing to qualify for an extension of the compliance date for standards promulgated under subsection (f) of this section in accordance with subsection (i)(8) of this section, the emission standards under this subsection for coke oven batteries shall require that coke oven batteries not exceed 8 per centum leaking doors, 1 per centum leaking lids, 5 per centum leaking offtakes, and 16 seconds visible emissions per charge, with no exclusion for emissions during the period after the closing of self-sealing doors. Notwithstanding subsection (i) of this section, the compliance date for

such emission standards for existing coke oven batteries seeking an extension shall be not later than the date 3 years after November 15, 1990.

(9) Sources licensed by the Nuclear Regulatory Commission

No standard for radionuclide emissions from any category or subcategory of facilities licensed by the Nuclear Regulatory Commission (or an Agreement State) is required to be promulgated under this section if the Administrator determines, by rule, and after consultation with the Nuclear Regulatory Commission, that the regulatory program established by the Nuclear Regulatory Commission pursuant to the Atomic Energy Act [42 U.S.C. 2011 et seq.] for such category or subcategory provides an ample margin of safety to protect the public health. Nothing in this subsection shall preclude or deny the right of any State or political subdivision thereof to adopt or enforce any standard or limitation respecting emissions of radionuclides which is more stringent than the standard or limitation in effect under section 7411 of this title or this section.

(10) Effective date

Emission standards or other regulations promulgated under this subsection shall be effective upon promulgation.

(e) Schedule for standards and review

(1) In general

The Administrator shall promulgate regulations establishing emission standards for categories and subcategories of sources initially listed for regulation pursuant to subsection (c)(1) of this

section as expeditiously as practicable, assuring that—

(A) emission standards for not less than 40 categories and subcategories (not counting coke oven batteries) shall be promulgated not later than 2 years after November 15, 1990;

(B) emission standards for coke oven batteries shall be promulgated not later than December 31, 1992;

(C) emission standards for 25 per centum of the listed categories and subcategories shall be promulgated not later than 4 years after November 15, 1990;

(D) emission standards for an additional 25 per centum of the listed categories and subcategories shall be promulgated not later than 7 years after November 15, 1990; and

(E) emission standards for all categories and subcategories shall be promulgated not later than 10 years after November 15, 1990.

(2) Priorities

In determining priorities for promulgating standards under subsection (d) of this section, the Administrator shall consider—

(A) the known or anticipated adverse effects of such pollutants on public health and the environment;

(B) the quantity and location of emissions or reasonably anticipated emissions of hazardous air pollutants that each category or subcategory will emit; and

(C) the efficiency of grouping categories or subcategories according to the pollutants emitted, or the processes or technologies used.

(3) Published schedule

Not later than 24 months after November 15, 1990, and after opportunity for comment, the Administrator shall publish a schedule establishing a date for the promulgation of emission standards for each category and subcategory of sources listed pursuant to subsection (c)(1) and (3) of this section which shall be consistent with the requirements of paragraphs (1) and (2). The determination of priorities for the promulgation of standards pursuant to this paragraph is not a rulemaking and shall not be subject to judicial review, except that, failure to promulgate any standard pursuant to the schedule established by this paragraph shall be subject to review under section 7604 of this title.

(4) Judicial review

Notwithstanding section 7607 of this title, no action of the Administrator adding a pollutant to the list under subsection (b) of this section or listing a source category or subcategory under subsection (c) of this section shall be a final agency action subject to judicial review, except that any such action may be reviewed under such section 7607 of this title when the Administrator issues emission standards for such pollutant or category.

(5) Publicly owned treatment works

The Administrator shall promulgate standards pursuant to subsection (d) of this section applicable to publicly owned treatment works (as defined in title II of the Federal Water Pollution Control Act

[33 U.S.C. 1281 et seq.]) not later than 5 years after November 15, 1990.

(f) Standard to protect health and environment

(1) Report

Not later than 6 years after November 15, 1990, the Administrator shall investigate and report, after consultation with the Surgeon General and after opportunity for public comment, to Congress on—

(A) methods of calculating the risk to public health remaining, or likely to remain, from sources subject to regulation under this section after the application of standards under subsection (d) of this section;

(B) the public health significance of such estimated remaining risk and the technologically and commercially available methods and costs of reducing such risks;

(C) the actual health effects with respect to persons living in the vicinity of sources, any available epidemiological or other health studies, risks presented by background concentrations of hazardous air pollutants, any uncertainties in risk assessment methodology or other health assessment technique, and any negative health or environmental consequences to the community of efforts to reduce such risks; and

(D) recommendations as to legislation regarding such remaining risk.

(2) Emission standards

(A) If Congress does not act on any recommendation submitted under paragraph (1), the Administrator shall, within 8 years after

promulgation of standards for each category or subcategory of sources pursuant to subsection (d) of this section, promulgate standards for such category or subcategory if promulgation of such standards is required in order to provide an ample margin of safety to protect public health in accordance with this section (as in effect before November 15, 1990) or to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect. Emission standards promulgated under this subsection shall provide an ample margin of safety to protect public health in accordance with this section (as in effect before November 15, 1990), unless the Administrator determines that a more stringent standard is necessary to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect. If standards promulgated pursuant to subsection (d) of this section and applicable to a category or subcategory of sources emitting a pollutant (or pollutants) classified as a known, probable or possible human carcinogen do not reduce lifetime excess cancer risks to the individual most exposed to emissions from a source in the category or subcategory to less than one in one million, the Administrator shall promulgate standards under this subsection for such source category.

(B) Nothing in subparagraph (A) or in any other provision of this section shall be construed as affecting, or applying to the Administrator's interpretation of this section, as in effect before November 15, 1990, and set forth in the Federal Register of September 14, 1989 (54 Federal Register 38044).

(C) The Administrator shall determine whether or not to promulgate such standards and, if the Administrator decides to promulgate such standards, shall promulgate the standards 8 years after promulgation of the standards under subsection (d) of this section for each source category or subcategory concerned. In the case of categories or subcategories for which standards under subsection (d) of this section are required to be promulgated within 2 years after November 15, 1990, the Administrator shall have 9 years after promulgation of the standards under subsection (d) of this section to make the determination under the preceding sentence and, if required, to promulgate the standards under this paragraph.

(3) Effective date

Any emission standard established pursuant to this subsection shall become effective upon promulgation.

(4) Prohibition

No air pollutant to which a standard under this subsection applies may be emitted from any stationary source in violation of such standard, except that in the case of an existing source—

(A) such standard shall not apply until 90 days after its effective date, and

(B) the Administrator may grant a waiver permitting such source a period of up to 2 years after the effective date of a standard to comply with the standard if the Administrator finds that such period is necessary for the installation of controls and that steps will be taken during the period of the waiver to assure that the health of

persons will be protected from imminent endangerment.

(5) Area sources

The Administrator shall not be required to conduct any review under this subsection or promulgate emission limitations under this subsection for any category or subcategory of area sources that is listed pursuant to subsection (c)(3) of this section and for which an emission standard is promulgated pursuant to subsection (d)(5) of this section.

(6) Unique chemical substances

In establishing standards for the control of unique chemical substances of listed pollutants without CAS numbers under this subsection, the Administrator shall establish such standards with respect to the health and environmental effects of the substances actually emitted by sources and direct transformation byproducts of such emissions in the categories and subcategories.

(g) Modifications

(1) Offsets

(A) A physical change in, or change in the method of operation of, a major source which results in a greater than de minimis increase in actual emissions of a hazardous air pollutant shall not be considered a modification, if such increase in the quantity of actual emissions of any hazardous air pollutant from such source will be offset by an equal or greater decrease in the quantity of emissions of another hazardous air pollutant (or pollutants) from such source which is deemed more hazardous, pursuant to guidance issued by the Administrator

under subparagraph (B). The owner or operator of such source shall submit a showing to the Administrator (or the State) that such increase has been offset under the preceding sentence.

(B) The Administrator shall, after notice and opportunity for comment and not later than 18 months after November 15, 1990, publish guidance with respect to implementation of this subsection. Such guidance shall include an identification, to the extent practicable, of the relative hazard to human health resulting from emissions to the ambient air of each of the pollutants listed under subsection (b) of this section sufficient to facilitate the offset showing authorized by subparagraph (A). Such guidance shall not authorize offsets between pollutants where the increased pollutant (or more than one pollutant in a stream of pollutants) causes adverse effects to human health for which no safety threshold for exposure can be determined unless there are corresponding decreases in such types of pollutant(s).

(2) Construction, reconstruction and modifications

(A) After the effective date of a permit program under subchapter V of this chapter in any State, no person may modify a major source of hazardous air pollutants in such State, unless the Administrator (or the State) determines that the maximum achievable control technology emission limitation under this section for existing sources will be met. Such determination shall be made on a case-by-case basis where no applicable emissions limitations have been established by the Administrator.

(B) After the effective date of a permit program under subchapter V of this chapter in any State, no person may construct or reconstruct any major source of hazardous air pollutants, unless the Administrator (or the State) determines that the maximum achievable control technology emission limitation under this section for new sources will be met. Such determination shall be made on a case-by-case basis where no applicable emission limitations have been established by the Administrator.

(3) Procedures for modifications

The Administrator (or the State) shall establish reasonable procedures for assuring that the requirements applying to modifications under this section are reflected in the permit.

(h) Work practice standards and other requirements

(1) In general

For purposes of this section, if it is not feasible in the judgment of the Administrator to prescribe or enforce an emission standard for control of a hazardous air pollutant or pollutants, the Administrator may, in lieu thereof, promulgate a design, equipment, work practice, or operational standard, or combination thereof, which in the Administrator's judgment is consistent with the provisions of subsection (d) or (f) of this section. In the event the Administrator promulgates a design or equipment standard under this subsection, the Administrator shall include as part of such standard such requirements as will assure the proper operation and maintenance of any such element of design or equipment.

(2) Definition

For the purpose of this subsection, the phrase "not feasible to prescribe or enforce an emission standard" means any situation in which the Administrator determines that—

(A) a hazardous air pollutant or pollutants cannot be emitted through a conveyance designed and constructed to emit or capture such pollutant, or that any requirement for, or use of, such a conveyance would be inconsistent with any Federal, State or local law, or

(B) the application of measurement methodology to a particular class of sources is not practicable due to technological and economic limitations.

(3) Alternative standard

If after notice and opportunity for comment, the owner or operator of any source establishes to the satisfaction of the Administrator that an alternative means of emission limitation will achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such pollutant achieved under the requirements of paragraph (1), the Administrator shall permit the use of such alternative by the source for purposes of compliance with this section with respect to such pollutant.

(4) Numerical standard required

Any standard promulgated under paragraph (1) shall be promulgated in terms of an emission standard whenever it is feasible to promulgate and enforce a standard in such terms.

(i) Schedule for compliance

(1) Preconstruction and operating requirements

After the effective date of any emission standard, limitation, or regulation under subsection (d), (f) or (h) of this section, no person may construct any new major source or reconstruct any existing major source subject to such emission standard, regulation or limitation unless the Administrator (or a State with a permit program approved under subchapter V of this chapter) determines that such source, if properly constructed, reconstructed and operated, will comply with the standard, regulation or limitation.

(2) Special rule

Notwithstanding the requirements of paragraph (1), a new source which commences construction or reconstruction after a standard, limitation or regulation applicable to such source is proposed and before such standard, limitation or regulation is promulgated shall not be required to comply with such promulgated standard until the date 3 years after the date of promulgation if—

(A) the promulgated standard, limitation or regulation is more stringent than the standard, limitation or regulation proposed; and

(B) the source complies with the standard, limitation, or regulation as proposed during the 3-year period immediately after promulgation.

(3) Compliance schedule for existing sources

(A) After the effective date of any emissions standard, limitation or regulation promulgated under this section and applicable to a source, no

person may operate such source in violation of such standard, limitation or regulation except, in the case of an existing source, the Administrator shall establish a compliance date or dates for each category or subcategory of existing sources, which shall provide for compliance as expeditiously as practicable, but in no event later than 3 years after the effective date of such standard, except as provided in subparagraph (B) and paragraphs (4) through (8).

(B) The Administrator (or a State with a program approved under subchapter V of this chapter) may issue a permit that grants an extension permitting an existing source up to 1 additional year to comply with standards under subsection (d) of this section if such additional period is necessary for the installation of controls. An additional extension of up to 3 years may be added for mining waste operations, if the 4-year compliance time is insufficient to dry and cover mining waste in order to reduce emissions of any pollutant listed under subsection (b) of this section.

(4) Presidential exemption

The President may exempt any stationary source from compliance with any standard or limitation under this section for a period of not more than 2 years if the President determines that the technology to implement such standard is not available and that it is in the national security interests of the United States to do so. An exemption under this paragraph may be extended for 1 or more additional periods, each period not to exceed 2 years. The President shall report to Congress with respect to each exemption (or extension thereof) made under this paragraph.

(5) Early reduction

(A) The Administrator (or a State acting pursuant to a permit program approved under subchapter V of this chapter) shall issue a permit allowing an existing source, for which the owner or operator demonstrates that the source has achieved a reduction of 90 per centum or more in emissions of hazardous air pollutants (95 per centum in the case of hazardous air pollutants which are particulates) from the source, to meet an alternative emission limitation reflecting such reduction in lieu of an emission limitation promulgated under subsection (d) of this section for a period of 6 years from the compliance date for the otherwise applicable standard, provided that such reduction is achieved before the otherwise applicable standard under subsection (d) of this section is first proposed. Nothing in this paragraph shall preclude a State from requiring reductions in excess of those specified in this subparagraph as a condition of granting the extension authorized by the previous sentence.

(B) An existing source which achieves the reduction referred to in subparagraph (A) after the proposal of an applicable standard but before January 1, 1994, may qualify under subparagraph (A), if the source makes an enforceable commitment to achieve such reduction before the proposal of the standard. Such commitment shall be enforceable to the same extent as a regulation under this section.

(C) The reduction shall be determined with respect to verifiable and actual emissions in a base year not earlier than calendar year 1987, provided that, there is no evidence that emissions in the base year are artificially or substantially greater than

emissions in other years prior to implementation of emissions reduction measures. The Administrator may allow a source to use a baseline year of 1985 or 1986 provided that the source can demonstrate to the satisfaction of the Administrator that emissions data for the source reflects verifiable data based on information for such source, received by the Administrator prior to November 15, 1990, pursuant to an information request issued under section 7414 of this title.

(D) For each source granted an alternative emission limitation under this paragraph there shall be established by a permit issued pursuant to subchapter V of this chapter an enforceable emission limitation for hazardous air pollutants reflecting the reduction which qualifies the source for an alternative emission limitation under this paragraph. An alternative emission limitation under this paragraph shall not be available with respect to standards or requirements promulgated pursuant to subsection (f) of this section and the Administrator shall, for the purpose of determining whether a standard under subsection (f) of this section is necessary, review emissions from sources granted an alternative emission limitation under this paragraph at the same time that other sources in the category or subcategory are reviewed.

(E) With respect to pollutants for which high risks of adverse public health effects may be associated with exposure to small quantities including, but not limited to, chlorinated dioxins and furans, the Administrator shall by regulation limit the use of offsetting reductions in emissions of other hazardous air pollutants from the source as counting toward the 90 per centum reduction in

such high-risk pollutants qualifying for an alternative emissions limitation under this paragraph.

(6) Other reductions

Notwithstanding the requirements of this section, no existing source that has installed—

(A) best available control technology (as defined in section 7479(3) of this title), or

(B) technology required to meet a lowest achievable emission rate (as defined in section 7501 of this title),

prior to the promulgation of a standard under this section applicable to such source and the same pollutant (or stream of pollutants) controlled pursuant to an action described in subparagraph (A) or (B) shall be required to comply with such standard under this section until the date 5 years after the date on which such installation or reduction has been achieved, as determined by the Administrator. The Administrator may issue such rules and guidance as are necessary to implement this paragraph.

(7) Extension for new sources

A source for which construction or reconstruction is commenced after the date an emission standard applicable to such source is proposed pursuant to subsection (d) of this section but before the date an emission standard applicable to such source is proposed pursuant to subsection (f) of this section shall not be required to comply with the emission standard under subsection (f) of this section until the date 10 years after the date construction or reconstruction is commenced.

(8) Coke ovens

(A) Any coke oven battery that complies with the emission limitations established under subsection (d)(8)(C) of this section, subparagraph (B), and subparagraph (C), and complies with the provisions of subparagraph (E), shall not be required to achieve emission limitations promulgated under subsection (f) of this section until January 1, 2020.

(B)(i) Not later than December 31, 1992, the Administrator shall promulgate emission limitations for coke oven emissions from coke oven batteries. Notwithstanding paragraph (3) of this subsection, the compliance date for such emission limitations for existing coke oven batteries shall be January 1, 1998. Such emission limitations shall reflect the lowest achievable emission rate as defined in section 7501 of this title for a coke oven battery that is rebuilt or a replacement at a coke oven plant for an existing battery. Such emission limitations shall be no less stringent than—

(I) 3 per centum leaking doors (5 per centum leaking doors for six meter batteries);

(II) 1 per centum leaking lids;

(III) 4 per centum leaking offtakes; and

(IV) 16 seconds visible emissions per charge,

with an exclusion for emissions during the period after the closing of self-sealing oven doors (or the total mass emissions equivalent). The rulemaking in which such emission limitations are promulgated shall also establish an appropriate measurement methodology for determining compliance with such emission limitations, and shall establish such emission limitations in terms of an equivalent level

of mass emissions reduction from a coke oven battery, unless the Administrator finds that such a mass emissions standard would not be practicable or enforceable. Such measurement methodology, to the extent it measures leaking doors, shall take into consideration alternative test methods that reflect the best technology and practices actually applied in the affected industries, and shall assure that the final test methods are consistent with the performance of such best technology and practices.

(ii) If the Administrator fails to promulgate such emission limitations under this subparagraph prior to the effective date of such emission limitations, the emission limitations applicable to coke oven batteries under this subparagraph shall be—

(I) 3 per centum leaking doors (5 per centum leaking doors for six meter batteries);

(II) 1 per centum leaking lids;

(III) 4 per centum leaking offtakes; and

(IV) 16 seconds visible emissions per charge,

or the total mass emissions equivalent (if the total mass emissions equivalent is determined to be practicable and enforceable), with no exclusion for emissions during the period after the closing of self-sealing oven doors.

(C) Not later than January 1, 2007, the Administrator shall review the emission limitations promulgated under subparagraph (B) and revise, as necessary, such emission limitations to reflect the lowest achievable emission rate as defined in section 7501 of this title at the time for a coke oven battery that is rebuilt or a replacement at a coke oven plant for an existing battery. Such emission

limitations shall be no less stringent than the emission limitation promulgated under subparagraph (B). Notwithstanding paragraph (2) of this subsection, the compliance date for such emission limitations for existing coke oven batteries shall be January 1, 2010.

(D) At any time prior to January 1, 1998, the owner or operator of any coke oven battery may elect to comply with emission limitations promulgated under subsection (f) of this section by the date such emission limitations would otherwise apply to such coke oven battery, in lieu of the emission limitations and the compliance dates provided under subparagraphs (B) and (C) of this paragraph. Any such owner or operator shall be legally bound to comply with such emission limitations promulgated under subsection (f) of this section with respect to such coke oven battery as of January 1, 2003. If no such emission limitations have been promulgated for such coke oven battery, the Administrator shall promulgate such emission limitations in accordance with subsection (f) of this section for such coke oven battery.

(E) Coke oven batteries qualifying for an extension under subparagraph (A) shall make available not later than January 1, 2000, to the surrounding communities the results of any risk assessment performed by the Administrator to determine the appropriate level of any emission standard established by the Administrator pursuant to subsection (f) of this section.

(F) Notwithstanding the provisions of this section, reconstruction of any source of coke oven emissions qualifying for an extension under this paragraph shall not subject such source to emission limitations

under subsection (f) of this section more stringent than those established under subparagraphs (B) and (C) until January 1, 2020. For the purposes of this subparagraph, the term "reconstruction" includes the replacement of existing coke oven battery capacity with new coke oven batteries of comparable or lower capacity and lower potential emissions.

(j) Equivalent emission limitation by permit

(1) Effective date

The requirements of this subsection shall apply in each State beginning on the effective date of a permit program established pursuant to subchapter V of this chapter in such State, but not prior to the date 42 months after November 15, 1990.

(2) Failure to promulgate a standard

In the event that the Administrator fails to promulgate a standard for a category or subcategory of major sources by the date established pursuant to subsection (e)(1) and (3) of this section, and beginning 18 months after such date (but not prior to the effective date of a permit program under subchapter V of this chapter), the owner or operator of any major source in such category or subcategory shall submit a permit application under paragraph (3) and such owner or operator shall also comply with paragraphs (5) and (6).

(3) Applications

By the date established by paragraph (2), the owner or operator of a major source subject to this subsection shall file an application for a permit. If the owner or operator of a source has submitted a timely and complete application for a permit

required by this subsection, any failure to have a permit shall not be a violation of paragraph (2), unless the delay in final action is due to the failure of the applicant to timely submit information required or requested to process the application. The Administrator shall not later than 18 months after November 15, 1990, and after notice and opportunity for comment, establish requirements for applications under this subsection including a standard application form and criteria for determining in a timely manner the completeness of applications.

(4) Review and approval

Permit applications submitted under this subsection shall be reviewed and approved or disapproved according to the provisions of section 7661d of this title. In the event that the Administrator (or the State) disapproves a permit application submitted under this subsection or determines that the application is incomplete, the applicant shall have up to 6 months to revise the application to meet the objections of the Administrator (or the State).

(5) Emission limitation

The permit shall be issued pursuant to subchapter V of this chapter and shall contain emission limitations for the hazardous air pollutants subject to regulation under this section and emitted by the source that the Administrator (or the State) determines, on a case-by-case basis, to be equivalent to the limitation that would apply to such source if an emission standard had been promulgated in a timely manner under subsection (d) of this section. In the alternative, if the

applicable criteria are met, the permit may contain an emissions limitation established according to the provisions of subsection (i)(5) of this section. For purposes of the preceding sentence, the reduction required by subsection (i)(5)(A) of this section shall be achieved by the date on which the relevant standard should have been promulgated under subsection (d) of this section. No such pollutant may be emitted in amounts exceeding an emission limitation contained in a permit immediately for new sources and, as expeditiously as practicable, but not later than the date 3 years after the permit is issued for existing sources or such other compliance date as would apply under subsection (i) of this section.

(6) Applicability of subsequent standards

If the Administrator promulgates an emission standard that is applicable to the major source prior to the date on which a permit application is approved, the emission limitation in the permit shall reflect the promulgated standard rather than the emission limitation determined pursuant to paragraph (5), provided that the source shall have the compliance period provided under subsection (i) of this section. If the Administrator promulgates a standard under subsection (d) of this section that would be applicable to the source in lieu of the emission limitation established by permit under this subsection after the date on which the permit has been issued, the Administrator (or the State) shall revise such permit upon the next renewal to reflect the standard promulgated by the Administrator providing such source a reasonable time to comply, but no longer than 8 years after such standard is promulgated or 8 years after the

date on which the source is first required to comply with the emissions limitation established by paragraph (5), whichever is earlier.

(k) Area source program

(1) Findings and purpose

The Congress finds that emissions of hazardous air pollutants from area sources may individually, or in the aggregate, present significant risks to public health in urban areas. Considering the large number of persons exposed and the risks of carcinogenic and other adverse health effects from hazardous air pollutants, ambient concentrations characteristic of large urban areas should be reduced to levels substantially below those currently experienced. It is the purpose of this subsection to achieve a substantial reduction in emissions of hazardous air pollutants from area sources and an equivalent reduction in the public health risks associated with such sources including a reduction of not less than 75 per centum in the incidence of cancer attributable to emissions from such sources.

(2) Research program

The Administrator shall, after consultation with State and local air pollution control officials, conduct a program of research with respect to sources of hazardous air pollutants in urban areas and shall include within such program—

(A) ambient monitoring for a broad range of hazardous air pollutants (including, but not limited to, volatile organic compounds, metals, pesticides and products of incomplete combustion) in a representative number of urban locations;

(B) analysis to characterize the sources of such pollution with a focus on area sources and the contribution that such sources make to public health risks from hazardous air pollutants; and

(C) consideration of atmospheric transformation and other factors which can elevate public health risks from such pollutants.

Health effects considered under this program shall include, but not be limited to, carcinogenicity, mutagenicity, teratogenicity, neurotoxicity, reproductive dysfunction and other acute and chronic effects including the role of such pollutants as precursors of ozone or acid aerosol formation. The Administrator shall report the preliminary results of such research not later than 3 years after November 15, 1990.

(3) National strategy

(A) Considering information collected pursuant to the monitoring program authorized by paragraph (2), the Administrator shall, not later than 5 years after November 15, 1990, and after notice and opportunity for public comment, prepare and transmit to the Congress a comprehensive strategy to control emissions of hazardous air pollutants from area sources in urban areas.

(B) The strategy shall—

(i) identify not less than 30 hazardous air pollutants which, as the result of emissions from area sources, present the greatest threat to public health in the largest number of urban areas and that are or will be listed pursuant to subsection (b) of this section, and

(ii) identify the source categories or subcategories emitting such pollutants that are or will be listed pursuant to subsection (c) of this section. When identifying categories and subcategories of sources under this subparagraph, the Administrator shall assure that sources accounting for 90 per centum or more of the aggregate emissions of each of the 30 identified hazardous air pollutants are subject to standards pursuant to subsection (d) of this section.

(C) The strategy shall include a schedule of specific actions to substantially reduce the public health risks posed by the release of hazardous air pollutants from area sources that will be implemented by the Administrator under the authority of this or other laws (including, but not limited to, the Toxic Substances Control Act [15 U.S.C. 2601 et seq.], the Federal Insecticide, Fungicide and Rodenticide Act [7 U.S.C. 136 et seq.] and the Resource Conservation and Recovery Act [42 U.S.C. 6901 et seq.]) or by the States. The strategy shall achieve a reduction in the incidence of cancer attributable to exposure to hazardous air pollutants emitted by stationary sources of not less than 75 per centum, considering control of emissions of hazardous air pollutants from all stationary sources and resulting from measures implemented by the Administrator or by the States under this or other laws.

(D) The strategy may also identify research needs in monitoring, analytical methodology, modeling or pollution control techniques and recommendations for changes in law that would further the goals and objectives of this subsection.

(E) Nothing in this subsection shall be interpreted to preclude or delay implementation of actions with respect to area sources of hazardous air pollutants under consideration pursuant to this or any other law and that may be promulgated before the strategy is prepared.

(F) The Administrator shall implement the strategy as expeditiously as practicable assuring that all sources are in compliance with all requirements not later than 9 years after November 15, 1990.

(G) As part of such strategy the Administrator shall provide for ambient monitoring and emissions modeling in urban areas as appropriate to demonstrate that the goals and objectives of the strategy are being met.

(4) Areawide activities

In addition to the national urban air toxics strategy authorized by paragraph (3), the Administrator shall also encourage and support areawide strategies developed by State or local air pollution control agencies that are intended to reduce risks from emissions by area sources within a particular urban area. From the funds available for grants under this section, the Administrator shall set aside not less than 10 per centum to support areawide strategies addressing hazardous air pollutants emitted by area sources and shall award such funds on a demonstration basis to those States with innovative and effective strategies. At the request of State or local air pollution control officials, the Administrator shall prepare guidelines for control technologies or management practices

which may be applicable to various categories or subcategories of area sources.

(5) Report

The Administrator shall report to the Congress at intervals not later than 8 and 12 years after November 15, 1990, on actions taken under this subsection and other parts of this chapter to reduce the risk to public health posed by the release of hazardous air pollutants from area sources. The reports shall also identify specific metropolitan areas that continue to experience high risks to public health as the result of emissions from area sources.

(*l*) State programs

(1) In general

Each State may develop and submit to the Administrator for approval a program for the implementation and enforcement (including a review of enforcement delegations previously granted) of emission standards and other requirements for air pollutants subject to this section or requirements for the prevention and mitigation of accidental releases pursuant to subsection (r) of this section. A program submitted by a State under this subsection may provide for partial or complete delegation of the Administrator's authorities and responsibilities to implement and enforce emissions standards and prevention requirements but shall not include authority to set standards less stringent than those promulgated by the Administrator under this chapter.

(2) Guidance

Not later than 12 months after November 15, 1990, the Administrator shall publish guidance that would be useful to the States in developing programs for submittal under this subsection. The guidance shall also provide for the registration of all facilities producing, processing, handling or storing any substance listed pursuant to subsection (r) of this section in amounts greater than the threshold quantity. The Administrator shall include as an element in such guidance an optional program begun in 1986 for the review of high-risk point sources of air pollutants including, but not limited to, hazardous air pollutants listed pursuant to subsection (b) of this section.

(3) Technical assistance

The Administrator shall establish and maintain an air toxics clearinghouse and center to provide technical information and assistance to State and local agencies and, on a cost recovery basis, to others on control technology, health and ecological risk assessment, risk analysis, ambient monitoring and modeling, and emissions measurement and monitoring. The Administrator shall use the authority of section 7403 of this title to examine methods for preventing, measuring, and controlling emissions and evaluating associated health and ecological risks. Where appropriate, such activity shall be conducted with not-for-profit organizations. The Administrator may conduct research on methods for preventing, measuring and controlling emissions and evaluating associated health and environment risks. All information collected under this paragraph shall be available to the public.

(4) Grants

Upon application of a State, the Administrator may make grants, subject to such terms and conditions as the Administrator deems appropriate, to such State for the purpose of assisting the State in developing and implementing a program for submittal and approval under this subsection. Programs assisted under this paragraph may include program elements addressing air pollutants or extremely hazardous substances other than those specifically subject to this section. Grants under this paragraph may include support for high-risk point source review as provided in paragraph (2) and support for the development and implementation of areawide area source programs pursuant to subsection (k) of this section.

(5) Approval or disapproval

Not later than 180 days after receiving a program submitted by a State, and after notice and opportunity for public comment, the Administrator shall either approve or disapprove such program. The Administrator shall disapprove any program submitted by a State, if the Administrator determines that—

(A) the authorities contained in the program are not adequate to assure compliance by all sources within the State with each applicable standard, regulation or requirement established by the Administrator under this section;

(B) adequate authority does not exist, or adequate resources are not available, to implement the program;

(C) the schedule for implementing the program and assuring compliance by affected sources is not sufficiently expeditious; or

(D) the program is otherwise not in compliance with the guidance issued by the Administrator under paragraph (2) or is not likely to satisfy, in whole or in part, the objectives of this chapter.

If the Administrator disapproves a State program, the Administrator shall notify the State of any revisions or modifications necessary to obtain approval. The State may revise and resubmit the proposed program for review and approval pursuant to the provisions of this subsection.

(6) Withdrawal

Whenever the Administrator determines, after public hearing, that a State is not administering and enforcing a program approved pursuant to this subsection in accordance with the guidance published pursuant to paragraph (2) or the requirements of paragraph (5), the Administrator shall so notify the State and, if action which will assure prompt compliance is not taken within 90 days, the Administrator shall withdraw approval of the program. The Administrator shall not withdraw approval of any program unless the State shall have been notified and the reasons for withdrawal shall have been stated in writing and made public.

(7) Authority to enforce

Nothing in this subsection shall prohibit the Administrator from enforcing any applicable emission standard or requirement under this section.

(8) Local program

The Administrator may, after notice and opportunity for public comment, approve a program developed and submitted by a local air pollution control agency (after consultation with the State) pursuant to this subsection and any such agency implementing an approved program may take any action authorized to be taken by a State under this section.

(9) Permit authority

Nothing in this subsection shall affect the authorities and obligations of the Administrator or the State under subchapter V of this chapter.

(m) Atmospheric deposition to Great Lakes and coastal waters

(1) Deposition assessment

The Administrator, in cooperation with the Under Secretary of Commerce for Oceans and Atmosphere, shall conduct a program to identify and assess the extent of atmospheric deposition of hazardous air pollutants (and in the discretion of the Administrator, other air pollutants) to the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters. As part of such program, the Administrator shall—

(A) monitor the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters, including monitoring of the Great Lakes through the monitoring network established pursuant to paragraph (2) of this subsection and designing and deploying an atmospheric monitoring network for coastal waters pursuant to paragraph (4);

(B) investigate the sources and deposition rates of atmospheric deposition of air pollutants (and their atmospheric transformation precursors);

(C) conduct research to develop and improve monitoring methods and to determine the relative contribution of atmospheric pollutants to total pollution loadings to the Great Lakes, the Chesapeake Bay, Lake Champlain, and coastal waters;

(D) evaluate any adverse effects to public health or the environment caused by such deposition (including effects resulting from indirect exposure pathways) and assess the contribution of such deposition to violations of water quality standards established pursuant to the Federal Water Pollution Control Act [33 U.S.C. 1251 et seq.] and drinking water standards established pursuant to the Safe Drinking Water Act [42 U.S.C. 300f et seq.]; and

(E) sample for such pollutants in biota, fish, and wildlife of the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters and characterize the sources of such pollutants.

(2) Great Lakes monitoring network

The Administrator shall oversee, in accordance with Annex 15 of the Great Lakes Water Quality Agreement, the establishment and operation of a Great Lakes atmospheric deposition network to monitor atmospheric deposition of hazardous air pollutants (and in the Administrator's discretion, other air pollutants) to the Great Lakes.

(A) As part of the network provided for in this paragraph, and not later than December 31, 1991, the Administrator shall establish in each of

the 5 Great Lakes at least 1 facility capable of monitoring the atmospheric deposition of hazardous air pollutants in both dry and wet conditions.

(B) The Administrator shall use the data provided by the network to identify and track the movement of hazardous air pollutants through the Great Lakes, to determine the portion of water pollution loadings attributable to atmospheric deposition of such pollutants, and to support development of remedial action plans and other management plans as required by the Great Lakes Water Quality Agreement.

(C) The Administrator shall assure that the data collected by the Great Lakes atmospheric deposition monitoring network is in a format compatible with databases sponsored by the International Joint Commission, Canada, and the several States of the Great Lakes region.

(3) Monitoring for the Chesapeake Bay and Lake Champlain

The Administrator shall establish at the Chesapeake Bay and Lake Champlain atmospheric deposition stations to monitor deposition of hazardous air pollutants (and in the Administrator's discretion, other air pollutants) within the Chesapeake Bay and Lake Champlain watersheds. The Administrator shall determine the role of air deposition in the pollutant loadings of the Chesapeake Bay and Lake Champlain, investigate the sources of air pollutants deposited in the watersheds, evaluate the health and environmental effects of such pollutant loadings, and shall sample such pollutants in biota, fish and wildlife within the

watersheds, as necessary to characterize such effects.

(4) Monitoring for coastal waters

The Administrator shall design and deploy atmospheric deposition monitoring networks for coastal waters and their watersheds and shall make any information collected through such networks available to the public. As part of this effort, the Administrator shall conduct research to develop and improve deposition monitoring methods, and to determine the relative contribution of atmospheric pollutants to pollutant loadings. For purposes of this subsection, "coastal waters" shall mean estuaries selected pursuant to section 320(a)(2)(A) of the Federal Water Pollution Control Act [33 U.S.C. 1330(a)(2)(A)] or listed pursuant to section 320(a)(2)(B) of such Act [33 U.S.C. 1330(a)(2)(B)] or estuarine research reserves designated pursuant to section 1461 of title 16.

(5) Report

Within 3 years of November 15, 1990, and biennially thereafter, the Administrator, in cooperation with the Under Secretary of Commerce for Oceans and Atmosphere, shall submit to the Congress a report on the results of any monitoring, studies, and investigations conducted pursuant to this subsection. Such report shall include, at a minimum, an assessment of—

(A) the contribution of atmospheric deposition to pollution loadings in the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters;

(B) the environmental and public health effects of any pollution which is attributable to

atmospheric deposition to the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters;

(C) the source or sources of any pollution to the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters which is attributable to atmospheric deposition;

(D) whether pollution loadings in the Great Lakes, the Chesapeake Bay, Lake Champlain or coastal waters cause or contribute to exceedances of drinking water standards pursuant to the Safe Drinking Water Act [42 U.S.C. 300f et seq.] or water quality standards pursuant to the Federal Water Pollution Control Act [33 U.S.C. 1251 et seq.] or, with respect to the Great Lakes, exceedances of the specific objectives of the Great Lakes Water Quality Agreement; and

(E) a description of any revisions of the requirements, standards, and limitations pursuant to this chapter and other applicable Federal laws as are necessary to assure protection of human health and the environment.

(6) Additional regulation

As part of the report to Congress, the Administrator shall determine whether the other provisions of this section are adequate to prevent serious adverse effects to public health and serious or widespread environmental effects, including such effects resulting from indirect exposure pathways, associated with atmospheric deposition to the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters of hazardous air pollutants (and their atmospheric transformation products). The Administrator shall take into consideration the

tendency of such pollutants to bioaccumulate. Within 5 years after November 15, 1990, the Administrator shall, based on such report and determination, promulgate, in accordance with this section, such further emission standards or control measures as may be necessary and appropriate to prevent such effects, including effects due to bioaccumulation and indirect exposure pathways. Any requirements promulgated pursuant to this paragraph with respect to coastal waters shall only apply to the coastal waters of the States which are subject to section 7627(a) of this title.

(n) Other provisions

(1) Electric utility steam generating units

(A) The Administrator shall perform a study of the hazards to public health reasonably anticipated to occur as a result of emissions by electric utility steam generating units of pollutants listed under subsection (b) of this section after imposition of the requirements of this chapter. The Administrator shall report the results of this study to the Congress within 3 years after November 15, 1990. The Administrator shall develop and describe in the Administrator's report to Congress alternative control strategies for emissions which may warrant regulation under this section. The Administrator shall regulate electric utility steam generating units under this section, if the Administrator finds such regulation is appropriate and necessary after considering the results of the study required by this subparagraph.

(B) The Administrator shall conduct, and transmit to the Congress not later than 4 years after November 15, 1990, a study of mercury

emissions from electric utility steam generating units, municipal waste combustion units, and other sources, including area sources. Such study shall consider the rate and mass of such emissions, the health and environmental effects of such emissions, technologies which are available to control such emissions, and the costs of such technologies.

(C) The National Institute of Environmental Health Sciences shall conduct, and transmit to the Congress not later than 3 years after November 15, 1990, a study to determine the threshold level of mercury exposure below which adverse human health effects are not expected to occur. Such study shall include a threshold for mercury concentrations in the tissue of fish which may be consumed (including consumption by sensitive populations) without adverse effects to public health.

(2) Coke oven production technology study

(A) The Secretary of the Department of Energy and the Administrator shall jointly undertake a 6-year study to assess coke oven production emission control technologies and to assist in the development and commercialization of technically practicable and economically viable control technologies which have the potential to significantly reduce emissions of hazardous air pollutants from coke oven production facilities. In identifying control technologies, the Secretary and the Administrator shall consider the range of existing coke oven operations and battery design and the availability of sources of materials for such coke ovens as well as alternatives to existing coke oven production design.

(B) The Secretary and the Administrator are authorized to enter into agreements with persons who propose to develop, install and operate coke production emission control technologies which have the potential for significant emissions reductions of hazardous air pollutants provided that Federal funds shall not exceed 50 per centum of the cost of any project assisted pursuant to this paragraph.

(C) On completion of the study, the Secretary shall submit to Congress a report on the results of the study and shall make recommendations to the Administrator identifying practicable and economically viable control technologies for coke oven production facilities to reduce residual risks remaining after implementation of the standard under subsection (d) of this section.

(D) There are authorized to be appropriated $5,000,000 for each of the fiscal years 1992 through 1997 to carry out the program authorized by this paragraph.

(3) Publicly owned treatment works

The Administrator may conduct, in cooperation with the owners and operators of publicly owned treatment works, studies to characterize emissions of hazardous air pollutants emitted by such facilities, to identify industrial, commercial and residential discharges that contribute to such emissions and to demonstrate control measures for such emissions. When promulgating any standard under this section applicable to publicly owned treatment works, the Administrator may provide for control measures that include pretreatment of discharges causing emissions of hazardous air

pollutants and process or product substitutions or limitations that may be effective in reducing such emissions. The Administrator may prescribe uniform sampling, modeling and risk assessment methods for use in implementing this subsection.

(4) Oil and gas wells; pipeline facilities

(A) Notwithstanding the provisions of subsection (a) of this section, emissions from any oil or gas exploration or production well (with its associated equipment) and emissions from any pipeline compressor or pump station shall not be aggregated with emissions from other similar units, whether or not such units are in a contiguous area or under common control, to determine whether such units or stations are major sources, and in the case of any oil or gas exploration or production well (with its associated equipment), such emissions shall not be aggregated for any purpose under this section.

(B) The Administrator shall not list oil and gas production wells (with its associated equipment) as an area source category under subsection (c) of this section, except that the Administrator may establish an area source category for oil and gas production wells located in any metropolitan statistical area or consolidated metropolitan statistical area with a population in excess of 1 million, if the Administrator determines that emissions of hazardous air pollutants from such wells present more than a negligible risk of adverse effects to public health.

(5) Hydrogen sulfide

The Administrator is directed to assess the hazards to public health and the environment resulting from the emission of hydrogen sulfide

associated with the extraction of oil and natural gas resources. To the extent practicable, the assessment shall build upon and not duplicate work conducted for an assessment pursuant to section 8002(m) of the Solid Waste Disposal Act [42 U.S.C. 6982(m)] and shall reflect consultation with the States. The assessment shall include a review of existing State and industry control standards, techniques and enforcement. The Administrator shall report to the Congress within 24 months after November 15, 1990, with the findings of such assessment, together with any recommendations, and shall, as appropriate, develop and implement a control strategy for emissions of hydrogen sulfide to protect human health and the environment, based on the findings of such assessment, using authorities under this chapter including sections 7411 of this title and this section.

(6) Hydrofluoric acid

Not later than 2 years after November 15, 1990, the Administrator shall, for those regions of the country which do not have comprehensive health and safety regulations with respect to hydrofluoric acid, complete a study of the potential hazards of hydrofluoric acid and the uses of hydrofluoric acid in industrial and commercial applications to public health and the environment considering a range of events including worst-case accidental releases and shall make recommendations to the Congress for the reduction of such hazards, if appropriate.

(7) RCRA facilities

In the case of any category or subcategory of sources the air emissions of which are regulated under subtitle C of the Solid Waste Disposal Act [42

U.S.C. 6921 et seq.], the Administrator shall take into account any regulations of such emissions which are promulgated under such subtitle and shall, to the maximum extent practicable and consistent with the provisions of this section, ensure that the requirements of such subtitle and this section are consistent.

(o) National Academy of Sciences study

(1) Request of the Academy

Within 3 months of November 15, 1990, the Administrator shall enter into appropriate arrangements with the National Academy of Sciences to conduct a review of—

(A) risk assessment methodology used by the Environmental Protection Agency to determine the carcinogenic risk associated with exposure to hazardous air pollutants from source categories and subcategories subject to the requirements of this section; and

(B) improvements in such methodology.

(2) Elements to be studied

In conducting such review, the National Academy of Sciences should consider, but not be limited to, the following—

(A) the techniques used for estimating and describing the carcinogenic potency to humans of hazardous air pollutants; and

(B) the techniques used for estimating exposure to hazardous air pollutants (for hypothetical and actual maximally exposed individuals as well as other exposed individuals).

(3) Other health effects of concern

To the extent practicable, the Academy shall evaluate and report on the methodology for assessing the risk of adverse human health effects other than cancer for which safe thresholds of exposure may not exist, including, but not limited to, inheritable genetic mutations, birth defects, and reproductive dysfunctions.

(4) Report

A report on the results of such review shall be submitted to the Senate Committee on Environment and Public Works, the House Committee on Energy and Commerce, the Risk Assessment and Management Commission established by section 303 of the Clean Air Act Amendments of 1990 and the Administrator not later than 30 months after November 15, 1990.

(5) Assistance

The Administrator shall assist the Academy in gathering any information the Academy deems necessary to carry out this subsection. The Administrator may use any authority under this chapter to obtain information from any person, and to require any person to conduct tests, keep and produce records, and make reports respecting research or other activities conducted by such person as necessary to carry out this subsection.

(6) Authorization

Of the funds authorized to be appropriated to the Administrator by this chapter, such amounts as are required shall be available to carry out this subsection.

(7) Guidelines for carcinogenic risk assessment

The Administrator shall consider, but need not adopt, the recommendations contained in the report of the National Academy of Sciences prepared pursuant to this subsection and the views of the Science Advisory Board, with respect to such report. Prior to the promulgation of any standard under subsection (f) of this section, and after notice and opportunity for comment, the Administrator shall publish revised Guidelines for Carcinogenic Risk Assessment or a detailed explanation of the reasons that any recommendations contained in the report of the National Academy of Sciences will not be implemented. The publication of such revised Guidelines shall be a final Agency action for purposes of section 7607 of this title.

(p) Mickey Leland National Urban Air Toxics Research Center

(1) Establishment

The Administrator shall oversee the establishment of a National Urban Air Toxics Research Center, to be located at a university, a hospital, or other facility capable of undertaking and maintaining similar research capabilities in the areas of epidemiology, oncology, toxicology, pulmonary medicine, pathology, and biostatistics. The center shall be known as the Mickey Leland National Urban Air Toxics Research Center. The geographic site of the National Urban Air Toxics Research Center should be further directed to Harris County, Texas, in order to take full advantage of the well developed scientific community presence on-site at the Texas Medical

Center as well as the extensive data previously compiled for the comprehensive monitoring system currently in place.

(2) Board of Directors

The National Urban Air Toxics Research Center shall be governed by a Board of Directors to be comprised of 9 members, the appointment of which shall be allocated pro rata among the Speaker of the House, the Majority Leader of the Senate and the President. The members of the Board of Directors shall be selected based on their respective academic and professional backgrounds and expertise in matters relating to public health, environmental pollution and industrial hygiene. The duties of the Board of Directors shall be to determine policy and research guidelines, submit views from center sponsors and the public and issue periodic reports of center findings and activities.

(3) Scientific Advisory Panel

The Board of Directors shall be advised by a Scientific Advisory Panel, the 13 members of which shall be appointed by the Board, and to include eminent members of the scientific and medical communities. The Panel membership may include scientists with relevant experience from the National Institute of Environmental Health Sciences, the Center for Disease Control, the Environmental Protection Agency, the National Cancer Institute, and others, and the Panel shall conduct peer review and evaluate research results. The Panel shall assist the Board in developing the research agenda, reviewing proposals and applications, and advise on the awarding of research grants.

(4) Funding

The center shall be established and funded with both Federal and private source funds.

(q) Savings provision

(1) Standards previously promulgated

Any standard under this section in effect before the date of enactment of the Clean Air Act Amendments of 1990 [November 15, 1990] shall remain in force and effect after such date unless modified as provided in this section before the date of enactment of such Amendments or under such Amendments. Except as provided in paragraph (4), any standard under this section which has been promulgated, but has not taken effect, before such date shall not be affected by such Amendments unless modified as provided in this section before such date or under such Amendments. Each such standard shall be reviewed and, if appropriate, revised, to comply with the requirements of subsection (d) of this section within 10 years after the date of enactment of the Clean Air Act Amendments of 1990. If a timely petition for review of any such standard under section 7607 of this title is pending on such date of enactment, the standard shall be upheld if it complies with this section as in effect before that date. If any such standard is remanded to the Administrator, the Administrator may in the Administrator's discretion apply either the requirements of this section, or those of this section as in effect before the date of enactment of the Clean Air Act Amendments of 1990.

(2) Special rule

Notwithstanding paragraph (1), no standard shall be established under this section, as amended by

the Clean Air Act Amendments of 1990, for radionuclide emissions from (A) elemental phosphorous plants, (B) grate calcination elemental phosphorous plants, (C) phosphogypsum stacks, or (D) any subcategory of the foregoing. This section, as in effect prior to the date of enactment of the Clean Air Act Amendments of 1990 [November 15, 1990], shall remain in effect for radionuclide emissions from such plants and stacks.

(3) Other categories

Notwithstanding paragraph (1), this section, as in effect prior to the date of enactment of the Clean Air Act Amendments of 1990 [November 15, 1990], shall remain in effect for radionuclide emissions from non-Department of Energy Federal facilities that are not licensed by the Nuclear Regulatory Commission, coal-fired utility and industrial boilers, underground uranium mines, surface uranium mines, and disposal of uranium mill tailings piles, unless the Administrator, in the Administrator's discretion, applies the requirements of this section as modified by the Clean Air Act Amendments of 1990 to such sources of radionuclides.

(4) Medical facilities

Notwithstanding paragraph (1), no standard promulgated under this section prior to November 15, 1990, with respect to medical research or treatment facilities shall take effect for two years following November 15, 1990, unless the Administrator makes a determination pursuant to a rulemaking under subsection (d)(9) of this section. If the Administrator determines that the regulatory program established by the Nuclear Regulatory Commission for such facilities does not provide an

ample margin of safety to protect public health, the requirements of this section shall fully apply to such facilities. If the Administrator determines that such regulatory program does provide an ample margin of safety to protect the public health, the Administrator is not required to promulgate a standard under this section for such facilities, as provided in subsection (d)(9) of this section.

(r) Prevention of accidental releases

(1) Purpose and general duty

It shall be the objective of the regulations and programs authorized under this subsection to prevent the accidental release and to minimize the consequences of any such release of any substance listed pursuant to paragraph (3) or any other extremely hazardous substance. The owners and operators of stationary sources producing, processing, handling or storing such substances have a general duty in the same manner and to the same extent as section 654 of title 29 to identify hazards which may result from such releases using appropriate hazard assessment techniques, to design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of accidental releases which do occur. For purposes of this paragraph, the provisions of section 7604 of this title shall not be available to any person or otherwise be construed to be applicable to this paragraph. Nothing in this section shall be interpreted, construed, implied or applied to create any liability or basis for suit for compensation for bodily injury or any other injury or property damages to any person which may result from accidental releases of such substances.

(2) Definitions

(A) The term "accidental release" means an unanticipated emission of a regulated substance or other extremely hazardous substance into the ambient air from a stationary source.

(B) The term "regulated substance" means a substance listed under paragraph (3).

(C) The term "stationary source" means any buildings, structures, equipment, installations or substance emitting stationary activities (i) which belong to the same industrial group, (ii) which are located on one or more contiguous properties, (iii) which are under the control of the same person (or persons under common control), and (iv) from which an accidental release may occur.

(D) The term "retail facility" means a stationary source at which more than one-half of the income is obtained from direct sales to end users or at which more than one-half of the fuel sold, by volume, is sold through a cylinder exchange program.

(3) List of substances

The Administrator shall promulgate not later than 24 months after November 15, 1990, an initial list of 100 substances which, in the case of an accidental release, are known to cause or may reasonably be anticipated to cause death, injury, or serious adverse effects to human health or the environment. For purposes of promulgating such list, the Administrator shall use, but is not limited to, the list of extremely hazardous substances published under the Emergency Planning and Community Right-to-Know Act of 1986 [42 U.S.C. 11001 et seq.], with such modifications as the Administrator deems appropriate. The initial list

shall include chlorine, anhydrous ammonia, methyl chloride, ethylene oxide, vinyl chloride, methyl isocyanate, hydrogen cyanide, ammonia, hydrogen sulfide, toluene diisocyanate, phosgene, bromine, anhydrous hydrogen chloride, hydrogen fluoride, anhydrous sulfur dioxide, and sulfur trioxide. The initial list shall include at least 100 substances which pose the greatest risk of causing death, injury, or serious adverse effects to human health or the environment from accidental releases. Regulations establishing the list shall include an explanation of the basis for establishing the list. The list may be revised from time to time by the Administrator on the Administrator's own motion or by petition and shall be reviewed at least every 5 years. No air pollutant for which a national primary ambient air quality standard has been established shall be included on any such list. No substance, practice, process, or activity regulated under subchapter VI of this chapter shall be subject to regulations under this subsection. The Administrator shall establish procedures for the addition and deletion of substances from the list established under this paragraph consistent with those applicable to the list in subsection (b) of this section.

(4) Factors to be considered

In listing substances under paragraph (3), the Administrator—

(A) shall consider—

(i) the severity of any acute adverse health effects associated with accidental releases of the substance;

(ii) the likelihood of accidental releases of the substance; and

(iii) the potential magnitude of human exposure to accidental releases of the substance; and

(B) shall not list a flammable substance when used as a fuel or held for sale as a fuel at a retail facility under this subsection solely because of the explosive or flammable properties of the substance, unless a fire or explosion caused by the substance will result in acute adverse health effects from human exposure to the substance, including the unburned fuel or its combustion byproducts, other than those caused by the heat of the fire or impact of the explosion.

(5) Threshold quantity

At the time any substance is listed pursuant to paragraph (3), the Administrator shall establish by rule, a threshold quantity for the substance, taking into account the toxicity, reactivity, volatility, dispersibility, combustibility, or flammability of the substance and the amount of the substance which, as a result of an accidental release, is known to cause or may reasonably be anticipated to cause death, injury or serious adverse effects to human health for which the substance was listed. The Administrator is authorized to establish a greater threshold quantity for, or to exempt entirely, any substance that is a nutrient used in agriculture when held by a farmer.

(6) Chemical Safety Board

(A) There is hereby established an independent safety board to be known as the Chemical Safety and Hazard Investigation Board.

(B) The Board shall consist of 5 members, including a Chairperson, who shall be appointed by the President, by and with the advice and consent of the Senate. Members of the Board shall be appointed on the basis of technical qualification, professional standing, and demonstrated knowledge in the fields of accident reconstruction, safety engineering, human factors, toxicology, or air pollution regulation. The terms of office of members of the Board shall be 5 years. Any member of the Board, including the Chairperson, may be removed for inefficiency, neglect of duty, or malfeasance in office. The Chairperson shall be the Chief Executive Officer of the Board and shall exercise the executive and administrative functions of the Board.

(C) The Board shall—

(i) investigate (or cause to be investigated), determine and report to the public in writing the facts, conditions, and circumstances and the cause or probable cause of any accidental release resulting in a fatality, serious injury or substantial property damages;

(ii) issue periodic reports to the Congress, Federal, State and local agencies, including the Environmental Protection Agency and the Occupational Safety and Health Administration, concerned with the safety of chemical production, processing, handling and storage, and other interested persons recommending measures to reduce the likelihood or the consequences of accidental releases and proposing corrective steps to make chemical production, processing, handling and storage as safe and free from risk of injury as is possible and may include in such reports proposed rules or orders which should be

issued by the Administrator under the authority of this section or the Secretary of Labor under the Occupational Safety and Health Act [29 U.S.C. 651 et seq.] to prevent or minimize the consequences of any release of substances that may cause death, injury or other serious adverse effects on human health or substantial property damage as the result of an accidental release; and

(iii) establish by regulation requirements binding on persons for reporting accidental releases into the ambient air subject to the Board's investigatory jurisdiction. Reporting releases to the National Response Center, in lieu of the Board directly, shall satisfy such regulations. The National Response Center shall promptly notify the Board of any releases which are within the Board's jurisdiction.

(D) The Board may utilize the expertise and experience of other agencies.

(E) The Board shall coordinate its activities with investigations and studies conducted by other agencies of the United States having a responsibility to protect public health and safety. The Board shall enter into a memorandum of understanding with the National Transportation Safety Board to assure coordination of functions and to limit duplication of activities which shall designate the National Transportation Safety Board as the lead agency for the investigation of releases which are transportation related. The Board shall not be authorized to investigate marine oil spills, which the National Transportation Safety Board is authorized to investigate. The Board shall enter into a memorandum of understanding with the

Occupational Safety and Health Administration so as to limit duplication of activities. In no event shall the Board forego an investigation where an accidental release causes a fatality or serious injury among the general public, or had the potential to cause substantial property damage or a number of deaths or injuries among the general public.

(F) The Board is authorized to conduct research and studies with respect to the potential for accidental releases, whether or not an accidental release has occurred, where there is evidence which indicates the presence of a potential hazard or hazards. To the extent practicable, the Board shall conduct such studies in cooperation with other Federal agencies having emergency response authorities, State and local governmental agencies and associations and organizations from the industrial, commercial, and nonprofit sectors.

(G) No part of the conclusions, findings, or recommendations of the Board relating to any accidental release or the investigation thereof shall be admitted as evidence or used in any action or suit for damages arising out of any matter mentioned in such report.

(H) Not later than 18 months after November 15, 1990, the Board shall publish a report accompanied by recommendations to the Administrator on the use of hazard assessments in preventing the occurrence and minimizing the consequences of accidental releases of extremely hazardous substances. The recommendations shall include a list of extremely hazardous substances which are not regulated substances (including threshold quantities for such substances) and categories of stationary sources for which hazard assessments

would be an appropriate measure to aid in the prevention of accidental releases and to minimize the consequences of those releases that do occur. The recommendations shall also include a description of the information and analysis which would be appropriate to include in any hazard assessment. The Board shall also make recommendations with respect to the role of risk management plans as required by paragraph (8)(B) in preventing accidental releases. The Board may from time to time review and revise its recommendations under this subparagraph.

(I) Whenever the Board submits a recommendation with respect to accidental releases to the Administrator, the Administrator shall respond to such recommendation formally and in writing not later than 180 days after receipt thereof. The response to the Board's recommendation by the Administrator shall indicate whether the Administrator will—

(i) initiate a rulemaking or issue such orders as are necessary to implement the recommendation in full or in part, pursuant to any timetable contained in the recommendation;

(ii) decline to initiate a rulemaking or issue orders as recommended.

Any determination by the Administrator not to implement a recommendation of the Board or to implement a recommendation only in part, including any variation from the schedule contained in the recommendation, shall be accompanied by a statement from the Administrator setting forth the reasons for such determination.

(J) The Board may make recommendations with respect to accidental releases to the Secretary of Labor. Whenever the Board submits such recommendation, the Secretary shall respond to such recommendation formally and in writing not later than 180 days after receipt thereof. The response to the Board's recommendation by the Administrator shall indicate whether the Secretary will—

(i) initiate a rulemaking or issue such orders as are necessary to implement the recommendation in full or in part, pursuant to any timetable contained in the recommendation;

(ii) decline to initiate a rulemaking or issue orders as recommended.

Any determination by the Secretary not to implement a recommendation or to implement a recommendation only in part, including any variation from the schedule contained in the recommendation, shall be accompanied by a statement from the Secretary setting forth the reasons for such determination.

(K) Within 2 years after November 15, 1990, the Board shall issue a report to the Administrator of the Environmental Protection Agency and to the Administrator of the Occupational Safety and Health Administration recommending the adoption of regulations for the preparation of risk management plans and general requirements for the prevention of accidental releases of regulated substances into the ambient air (including recommendations for listing substances under paragraph (3)) and for the mitigation of the potential adverse effect on human health or the

environment as a result of accidental releases which should be applicable to any stationary source handling any regulated substance in more than threshold amounts. The Board may include proposed rules or orders which should be issued by the Administrator under authority of this subsection or by the Secretary of Labor under the Occupational Safety and Health Act [29 U.S.C. 651 et seq.]. Any such recommendations shall be specific and shall identify the regulated substance or class of regulated substances (or other substances) to which the recommendations apply. The Administrator shall consider such recommendations before promulgating regulations required by paragraph (7)(B).

(L) The Board, or upon authority of the Board, any member thereof, any administrative law judge employed by or assigned to the Board, or any officer or employee duly designated by the Board, may for the purpose of carrying out duties authorized by subparagraph (C)—

(i) hold such hearings, sit and act at such times and places, administer such oaths, and require by subpoena or otherwise attendance and testimony of such witnesses and the production of evidence and may require by order that any person engaged in the production, processing, handling, or storage of extremely hazardous substances submit written reports and responses to requests and questions within such time and in such form as the Board may require; and

(ii) upon presenting appropriate credentials and a written notice of inspection authority, enter any property where an accidental release causing a fatality, serious injury or substantial

property damage has occurred and do all things therein necessary for a proper investigation pursuant to subparagraph (C) and inspect at reasonable times records, files, papers, processes, controls, and facilities and take such samples as are relevant to such investigation.

Whenever the Administrator or the Board conducts an inspection of a facility pursuant to this subsection, employees and their representatives shall have the same rights to participate in such inspections as provided in the Occupational Safety and Health Act [29 U.S.C. 651 et seq.].

(M) In addition to that described in subparagraph (L), the Board may use any information gathering authority of the Administrator under this chapter, including the subpoena power provided in section 7607(a)(1) of this title.

(N) The Board is authorized to establish such procedural and administrative rules as are necessary to the exercise of its functions and duties. The Board is authorized without regard to section 6101 of title 41 to enter into contracts, leases, cooperative agreements or other transactions as may be necessary in the conduct of the duties and functions of the Board with any other agency, institution, or person.

(O) After the effective date of any reporting requirement promulgated pursuant to subparagraph (C)(iii) it shall be unlawful for any person to fail to report any release of any extremely hazardous substance as required by such subparagraph. The Administrator is authorized to enforce any regulation or requirements established by the Board pursuant to subparagraph (C)(iii)

using the authorities of sections 7413 and 7414 of this title. Any request for information from the owner or operator of a stationary source made by the Board or by the Administrator under this section shall be treated, for purposes of sections 7413, 7414, 7416, 7420, 7603, 7604 and 7607 of this title and any other enforcement provisions of this chapter, as a request made by the Administrator under section 7414 of this title and may be enforced by the Chairperson of the Board or by the Administrator as provided in such section.

(P) The Administrator shall provide to the Board such support and facilities as may be necessary for operation of the Board.

(Q) Consistent with subsection (G) and section 7414(c) of this title any records, reports or information obtained by the Board shall be available to the Administrator, the Secretary of Labor, the Congress and the public, except that upon a showing satisfactory to the Board by any person that records, reports, or information, or particular part thereof (other than release or emissions data) to which the Board has access, if made public, is likely to cause substantial harm to the person's competitive position, the Board shall consider such record, report, or information or particular portion thereof confidential in accordance with section 1905 of title 18, except that such record, report, or information may be disclosed to other officers, employees, and authorized representatives of the United States concerned with carrying out this chapter or when relevant under any proceeding under this chapter. This subparagraph does not constitute authority to

withhold records, reports, or information from the Congress.

(R) Whenever the Board submits or transmits any budget estimate, budget request, supplemental budget request, or other budget information, legislative recommendation, prepared testimony for congressional hearings, recommendation or study to the President, the Secretary of Labor, the Administrator, or the Director of the Office of Management and Budget, it shall concurrently transmit a copy thereof to the Congress. No report of the Board shall be subject to review by the Administrator or any Federal agency or to judicial review in any court. No officer or agency of the United States shall have authority to require the Board to submit its budget requests or estimates, legislative recommendations, prepared testimony, comments, recommendations or reports to any officer or agency of the United States for approval or review prior to the submission of such recommendations, testimony, comments or reports to the Congress. In the performance of their functions as established by this chapter, the members, officers and employees of the Board shall not be responsible to or subject to supervision or direction, in carrying out any duties under this subsection, of any officer or employee or agent of the Environmental Protection Agency, the Department of Labor or any other agency of the United States except that the President may remove any member, officer or employee of the Board for inefficiency, neglect of duty or malfeasance in office. Nothing in this section shall affect the application of title 5 to officers or employees of the Board.

(S) The Board shall submit an annual report to the President and to the Congress which shall include, but not be limited to, information on accidental releases which have been investigated by or reported to the Board during the previous year, recommendations for legislative or administrative action which the Board has made, the actions which have been taken by the Administrator or the Secretary of Labor or the heads of other agencies to implement such recommendations, an identification of priorities for study and investigation in the succeeding year, progress in the development of risk-reduction technologies and the response to and implementation of significant research findings on chemical safety in the public and private sector.

(7) Accident prevention

(A) In order to prevent accidental releases of regulated substances, the Administrator is authorized to promulgate release prevention, detection, and correction requirements which may include monitoring, record-keeping, reporting, training, vapor recovery, secondary containment, and other design, equipment, work practice, and operational requirements. Regulations promulgated under this paragraph may make distinctions between various types, classes, and kinds of facilities, devices and systems taking into consideration factors including, but not limited to, the size, location, process, process controls, quantity of substances handled, potency of substances, and response capabilities present at any stationary source. Regulations promulgated pursuant to this subparagraph shall have an effective date, as determined by the Administrator, assuring compliance as expeditiously as practicable.

(B)(i) Within 3 years after November 15, 1990, the Administrator shall promulgate reasonable regulations and appropriate guidance to provide, to the greatest extent practicable, for the prevention and detection of accidental releases of regulated substances and for response to such releases by the owners or operators of the sources of such releases. The Administrator shall utilize the expertise of the Secretaries of Transportation and Labor in promulgating such regulations. As appropriate, such regulations shall cover the use, operation, repair, replacement, and maintenance of equipment to monitor, detect, inspect, and control such releases, including training of persons in the use and maintenance of such equipment and in the conduct of periodic inspections. The regulations shall include procedures and measures for emergency response after an accidental release of a regulated substance in order to protect human health and the environment. The regulations shall cover storage, as well as operations. The regulations shall, as appropriate, recognize differences in size, operations, processes, class and categories of sources and the voluntary actions of such sources to prevent such releases and respond to such releases. The regulations shall be applicable to a stationary source 3 years after the date of promulgation, or 3 years after the date on which a regulated substance present at the source in more than threshold amounts is first listed under paragraph (3), whichever is later.

(ii) The regulations under this subparagraph shall require the owner or operator of stationary sources at which a regulated substance is present in more than a threshold quantity to prepare and implement a risk management plan to detect and

prevent or minimize accidental releases of such substances from the stationary source, and to provide a prompt emergency response to any such releases in order to protect human health and the environment. Such plan shall provide for compliance with the requirements of this subsection and shall also include each of the following:

(I) a hazard assessment to assess the potential effects of an accidental release of any regulated substance. This assessment shall include an estimate of potential release quantities and a determination of downwind effects, including potential exposures to affected populations. Such assessment shall include a previous release history of the past 5 years, including the size, concentration, and duration of releases, and shall include an evaluation of worst case accidental releases;

(II) a program for preventing accidental releases of regulated substances, including safety precautions and maintenance, monitoring and employee training measures to be used at the source; and

(III) a response program providing for specific actions to be taken in response to an accidental release of a regulated substance so as to protect human health and the environment, including procedures for informing the public and local agencies responsible for responding to accidental releases, emergency health care, and employee training measures.

At the time regulations are promulgated under this subparagraph, the Administrator shall promulgate guidelines to assist stationary sources in the

preparation of risk management plans. The guidelines shall, to the extent practicable, include model risk management plans.

(iii) The owner or operator of each stationary source covered by clause (ii) shall register a risk management plan prepared under this subparagraph with the Administrator before the effective date of regulations under clause (i) in such form and manner as the Administrator shall, by rule, require. Plans prepared pursuant to this subparagraph shall also be submitted to the Chemical Safety and Hazard Investigation Board, to the State in which the stationary source is located, and to any local agency or entity having responsibility for planning for or responding to accidental releases which may occur at such source, and shall be available to the public under section 7414(c) of this title. The Administrator shall establish, by rule, an auditing system to regularly review and, if necessary, require revision in risk management plans to assure that the plans comply with this subparagraph. Each such plan shall be updated periodically as required by the Administrator, by rule.

(C) Any regulations promulgated pursuant to this subsection shall to the maximum extent practicable, consistent with this subsection, be consistent with the recommendations and standards established by the American Society of Mechanical Engineers (ASME), the American National Standards Institute (ANSI) or the American Society of Testing Materials (ASTM). The Administrator shall take into consideration the concerns of small business in promulgating regulations under this subsection.

(D) In carrying out the authority of this paragraph, the Administrator shall consult with the Secretary of Labor and the Secretary of Transportation and shall coordinate any requirements under this paragraph with any requirements established for comparable purposes by the Occupational Safety and Health Administration or the Department of Transportation. Nothing in this subsection shall be interpreted, construed or applied to impose requirements affecting, or to grant the Administrator, the Chemical Safety and Hazard Investigation Board, or any other agency any authority to regulate (including requirements for hazard assessment), the accidental release of radionuclides arising from the construction and operation of facilities licensed by the Nuclear Regulatory Commission.

(E) After the effective date of any regulation or requirement imposed under this subsection, it shall be unlawful for any person to operate any stationary source subject to such regulation or requirement in violation of such regulation or requirement. Each regulation or requirement under this subsection shall for purposes of sections 7413, 7414, 7416, 7420, 7604, and 7607 of this title and other enforcement provisions of this chapter, be treated as a standard in effect under subsection (d) of this section.

(F) Notwithstanding the provisions of subchapter V of this chapter or this section, no stationary source shall be required to apply for, or operate pursuant to, a permit issued under such subchapter solely because such source is subject to regulations or requirements under this subsection.

(G) In exercising any authority under this subsection, the Administrator shall not, for purposes of section 653(b)(1) of title 29, be deemed to be exercising statutory authority to prescribe or enforce standards or regulations affecting occupational safety and health.

(H) PUBLIC ACCESS TO OFF-SITE CONSEQUENCE ANALYSIS INFORMATION.—

(i) DEFINITIONS.—In this subparagraph:

(I) COVERED PERSON.—The term "covered person" means—

(aa) an officer or employee of the United States;

(bb) an officer or employee of an agent or contractor of the Federal Government;

(cc) an officer or employee of a State or local government;

(dd) an officer or employee of an agent or contractor of a State or local government;

(ee) an individual affiliated with an entity that has been given, by a State or local government, responsibility for preventing, planning for, or responding to accidental releases;

(ff) an officer or employee or an agent or contractor of an entity described in item (ee); and

(gg) a qualified researcher under clause (vii).

(II) OFFICIAL USE.—The term "official use" means an action of a Federal, State, or local

government agency or an entity referred to in subclause (I)(ee) intended to carry out a function relevant to preventing, planning for, or responding to accidental releases.

(III) OFF-SITE CONSEQUENCE ANALYSIS INFORMATION.—The term "off-site consequence analysis information" means those portions of a risk management plan, excluding the executive summary of the plan, consisting of an evaluation of 1 or more worst-case release scenarios or alternative release scenarios, and any electronic data base created by the Administrator from those portions.

(IV) RISK MANAGEMENT PLAN.—The term "risk management plan" means a risk management plan submitted to the Administrator by an owner or operator of a stationary source under subparagraph (B)(iii).

(ii) REGULATIONS.—Not later than 1 year after August 5, 1999, the President shall—

(I) assess—

(aa) the increased risk of terrorist and other criminal activity associated with the posting of off-site consequence analysis information on the Internet; and

(bb) the incentives created by public disclosure of off-site consequence analysis information for reduction in the risk of accidental releases; and

(II) based on the assessment under subclause (I), promulgate regulations governing the distribution of off-site consequence analysis information in a manner that, in the opinion of

the President, minimizes the likelihood of accidental releases and the risk described in subclause (I)(aa) and the likelihood of harm to public health and welfare, and—

(aa) allows access by any member of the public to paper copies of off-site consequence analysis information for a limited number of stationary sources located anywhere in the United States, without any geographical restriction;

(bb) allows other public access to off-site consequence analysis information as appropriate;

(cc) allows access for official use by a covered person described in any of items (cc) through (ff) of clause (i)(I) (referred to in this subclause as a "State or local covered person") to off-site consequence analysis information relating to stationary sources located in the person's State;

(dd) allows a State or local covered person to provide, for official use, off-site consequence analysis information relating to stationary sources located in the person's State to a State or local covered person in a contiguous State; and

(ee) allows a State or local covered person to obtain for official use, by request to the Administrator, off-site consequence analysis information that is not available to the person under item (cc).

(iii) AVAILABILITY UNDER FREEDOM OF INFORMATION ACT.—

(I) FIRST YEAR.—Off-site consequence analysis information, and any ranking of stationary sources derived from the information, shall not be made available under section 552 of title 5 during the 1-year period beginning on August 5, 1999.

(II) AFTER FIRST YEAR.—If the regulations under clause (ii) are promulgated on or before the end of the period described in subclause (I), off-site consequence analysis information covered by the regulations, and any ranking of stationary sources derived from the information, shall not be made available under section 552 of title 5 after the end of that period.

(III) APPLICABILITY.—Subclauses (I) and (II) apply to off-site consequence analysis information submitted to the Administrator before, on, or after August 5, 1999.

(iv) AVAILABILITY OF INFORMATION DURING TRANSITION PERIOD.—The Administrator shall make off-site consequence analysis information available to covered persons for official use in a manner that meets the requirements of items (cc) through (ee) of clause (ii)(II), and to the public in a form that does not make available any information concerning the identity or location of stationary sources, during the period—

(I) beginning on August 5, 1999; and

(II) ending on the earlier of the date of promulgation of the regulations under clause (ii) or the date that is 1 year after August 5, 1999.

(v) PROHIBITION ON UNAUTHORIZED DISCLOSURE OF INFORMATION BY COVERED PERSONS.—

(I) IN GENERAL.—Beginning on August 5, 1999, a covered person shall not disclose to the public off-site consequence analysis information in any form, or any statewide or national ranking of identified stationary sources derived from such information, except as authorized by this subparagraph (including the regulations promulgated under clause (ii)). After the end of the 1-year period beginning on August 5, 1999, if regulations have not been promulgated under clause (ii), the preceding sentence shall not apply.

(II) CRIMINAL PENALTIES.—Notwithstanding section 7413 of this title, a covered person that willfully violates a restriction or prohibition established by this subparagraph (including the regulations promulgated under clause (ii)) shall, upon conviction, be fined for an infraction under section 3571 of title 18 (but shall not be subject to imprisonment) for each unauthorized disclosure of off-site consequence analysis information, except that subsection (d) of such section 3571 shall not apply to a case in which the offense results in pecuniary loss unless the defendant knew that such loss would occur. The disclosure of off-site consequence analysis information for each specific stationary source shall be considered a separate offense. The total of all penalties that may be imposed on a single person or organization under this item shall not exceed $1,000,000 for violations committed during any 1 calendar year.

(III) APPLICABILITY.—If the owner or operator of a stationary source makes off-site consequence analysis information relating to that stationary source available to the public without restriction—

(aa) subclauses (I) and (II) shall not apply with respect to the information; and

(bb) the owner or operator shall notify the Administrator of the public availability of the information.

(IV) LIST.—The Administrator shall maintain and make publicly available a list of all stationary sources that have provided notification under subclause (III)(bb).

(vi) NOTICE.—The Administrator shall provide notice of the definition of official use as provided in clause (i)(III) and examples of actions that would and would not meet that definition, and notice of the restrictions on further dissemination and the penalties established by this chapter to each covered person who receives off-site consequence analysis information under clause (iv) and each covered person who receives off-site consequence analysis information for an official use under the regulations promulgated under clause (ii).

(vii) QUALIFIED RESEARCHERS.—

(I) IN GENERAL.—Not later than 180 days after August 5, 1999, the Administrator, in consultation with the Attorney General, shall develop and implement a system for providing off-site consequence analysis information, including facility identification, to any qualified researcher, including a qualified

researcher from industry or any public interest group.

(II) LIMITATION ON DISSEMINATION.—The system shall not allow the researcher to disseminate, or make available on the Internet, the off-site consequence analysis information, or any portion of the off-site consequence analysis information, received under this clause.

(viii) READ-ONLY INFORMATION TECHNOLOGY SYSTEM.—In consultation with the Attorney General and the heads of other appropriate Federal agencies, the Administrator shall establish an information technology system that provides for the availability to the public of off-site consequence analysis information by means of a central data base under the control of the Federal Government that contains information that users may read, but that provides no means by which an electronic or mechanical copy of the information may be made.

(ix) VOLUNTARY INDUSTRY ACCIDENT PREVENTION STANDARDS.—The Environmental Protection Agency, the Department of Justice, and other appropriate agencies may provide technical assistance to owners and operators of stationary sources and participate in the development of voluntary industry standards that will help achieve the objectives set forth in paragraph (1).

(x) EFFECT ON STATE OR LOCAL LAW.—

(I) IN GENERAL.—Subject to subclause (II), this subparagraph (including the regulations promulgated under this subparagraph) shall

supersede any provision of State or local law that is inconsistent with this subparagraph (including the regulations).

(II) AVAILABILITY OF INFORMATION UNDER STATE LAW.—Nothing in this subparagraph precludes a State from making available data on the off-site consequences of chemical releases collected in accordance with State law.

(xi) REPORT.—

(I) IN GENERAL.—Not later than 3 years after August 5, 1999, the Attorney General, in consultation with appropriate State, local, and Federal Government agencies, affected industry, and the public, shall submit to Congress a report that describes the extent to which regulations promulgated under this paragraph have resulted in actions, including the design and maintenance of safe facilities, that are effective in detecting, preventing, and minimizing the consequences of releases of regulated substances that may be caused by criminal activity. As part of this report, the Attorney General, using available data to the extent possible, and a sampling of covered stationary sources selected at the discretion of the Attorney General, and in consultation with appropriate State, local, and Federal governmental agencies, affected industry, and the public, shall review the vulnerability of covered stationary sources to criminal and terrorist activity, current industry practices regarding site security, and security of transportation of regulated substances. The Attorney General shall submit this report, containing the results of the review, together

with recommendations, if any, for reducing vulnerability of covered stationary sources to criminal and terrorist activity, to the Committee on Commerce of the United States House of Representatives and the Committee on Environment and Public Works of the United States Senate and other relevant committees of Congress.

(II) INTERIM REPORT.—Not later than 12 months after August 5, 1999, the Attorney General shall submit to the Committee on Commerce of the United States House of Representatives and the Committee on Environment and Public Works of the United States Senate, and other relevant committees of Congress, an interim report that includes, at a minimum—

(aa) the preliminary findings under subclause (I);

(bb) the methods used to develop the findings; and

(cc) an explanation of the activities expected to occur that could cause the findings of the report under subclause (I) to be different than the preliminary findings.

(III) AVAILABILITY OF INFORMATION.—Information that is developed by the Attorney General or requested by the Attorney General and received from a covered stationary source for the purpose of conducting the review under subclauses (I) and (II) shall be exempt from disclosure under section 552 of title 5 if such information would pose a threat to national security.

(xii) SCOPE.—This subparagraph—

(I) applies only to covered persons; and

(II) does not restrict the dissemination of off-site consequence analysis information by any covered person in any manner or form except in the form of a risk management plan or an electronic data base created by the Administrator from off-site consequence analysis information.

(xiii) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Administrator and the Attorney General such sums as are necessary to carry out this subparagraph (including the regulations promulgated under clause (ii)), to remain available until expended.

(8) Research on hazard assessments

The Administrator may collect and publish information on accident scenarios and consequences covering a range of possible events for substances listed under paragraph (3). The Administrator shall establish a program of long-term research to develop and disseminate information on methods and techniques for hazard assessment which may be useful in improving and validating the procedures employed in the preparation of hazard assessments under this subsection.

(9) Order authority

(A) In addition to any other action taken, when the Administrator determines that there may be an imminent and substantial endangerment to the human health or welfare or the environment because of an actual or threatened accidental

release of a regulated substance, the Administrator may secure such relief as may be necessary to abate such danger or threat, and the district court of the United States in the district in which the threat occurs shall have jurisdiction to grant such relief as the public interest and the equities of the case may require. The Administrator may also, after notice to the State in which the stationary source is located, take other action under this paragraph including, but not limited to, issuing such orders as may be necessary to protect human health. The Administrator shall take action under section 7603 of this title rather than this paragraph whenever the authority of such section is adequate to protect human health and the environment.

(B) Orders issued pursuant to this paragraph may be enforced in an action brought in the appropriate United States district court as if the order were issued under section 7603 of this title.

(C) Within 180 days after November 15, 1990, the Administrator shall publish guidance for using the order authorities established by this paragraph. Such guidance shall provide for the coordinated use of the authorities of this paragraph with other emergency powers authorized by section 9606 of this title, sections 311(c), 308, 309 and 504(a) of the Federal Water Pollution Control Act [33 U.S.C. 1321(c), 1318, 1319, 1364(a)], sections 3007, 3008, 3013, and 7003 of the Solid Waste Disposal Act [42 U.S.C. 6927, 6928, 6934, 6973], sections 1445 and 1431 of the Safe Drinking Water Act [42 U.S.C. 300j–4, 300i], sections 5 and 7 of the Toxic Substances Control Act [15 U.S.C. 2604, 2606], and sections 7413, 7414, and 7603 of this title.

(10) Presidential review

The President shall conduct a review of release prevention, mitigation and response authorities of the various Federal agencies and shall clarify and coordinate agency responsibilities to assure the most effective and efficient implementation of such authorities and to identify any deficiencies in authority or resources which may exist. The President may utilize the resources and solicit the recommendations of the Chemical Safety and Hazard Investigation Board in conducting such review. At the conclusion of such review, but not later than 24 months after November 15, 1990, the President shall transmit a message to the Congress on the release prevention, mitigation and response activities of the Federal Government making such recommendations for change in law as the President may deem appropriate. Nothing in this paragraph shall be interpreted, construed or applied to authorize the President to modify or reassign release prevention, mitigation or response authorities otherwise established by law.

(11) State authority

Nothing in this subsection shall preclude, deny or limit any right of a State or political subdivision thereof to adopt or enforce any regulation, requirement, limitation or standard (including any procedural requirement) that is more stringent than a regulation, requirement, limitation or standard in effect under this subsection or that applies to a substance not subject to this subsection.

(s) Periodic report

Not later than January 15, 1993 and every 3 years thereafter, the Administrator shall prepare and

transmit to the Congress a comprehensive report on the measures taken by the Agency and by the States to implement the provisions of this section. The Administrator shall maintain a database on pollutants and sources subject to the provisions of this section and shall include aggregate information from the database in each annual report. The report shall include, but not be limited to—

(1) a status report on standard-setting under subsections (d) and (f) of this section;

(2) information with respect to compliance with such standards including the costs of compliance experienced by sources in various categories and subcategories;

(3) development and implementation of the national urban air toxics program; and

(4) recommendations of the Chemical Safety and Hazard Investigation Board with respect to the prevention and mitigation of accidental releases.

42 U.S.C. § 7413

FEDERAL ENFORCEMENT

(a) In general

(1) Order to comply with SIP

Whenever, on the basis of any information available to the Administrator, the Administrator finds that any person has violated or is in violation of any requirement or prohibition of an applicable implementation plan or permit, the Administrator shall notify the person and the State in which the plan applies of such finding. At any time after the expiration of 30 days following the date on which such notice of a violation is issued, the Administrator may, without regard to the period of violation (subject to section 2462 of title 28)—

(A) issue an order requiring such person to comply with the requirements or prohibitions of such plan or permit,

(B) issue an administrative penalty order in accordance with subsection (d) of this section, or

(C) bring a civil action in accordance with subsection (b) of this section.

(2) State failure to enforce SIP or permit program

Whenever, on the basis of information available to the Administrator, the Administrator finds that violations of an applicable implementation plan or an approved permit program under subchapter V of this chapter are so widespread that such violations appear to result from a failure of the State in which the plan or permit program applies to enforce the

plan or permit program effectively, the Administrator shall so notify the State. In the case of a permit program, the notice shall be made in accordance with subchapter V of this chapter. If the Administrator finds such failure extends beyond the 30th day after such notice (90 days in the case of such permit program), the Administrator shall give public notice of such finding. During the period beginning with such public notice and ending when such State satisfies the Administrator that it will enforce such plan or permit program (hereafter referred to in this section as "period of federally assumed enforcement"), the Administrator may enforce any requirement or prohibition of such plan or permit program with respect to any person by—

(A) issuing an order requiring such person to comply with such requirement or prohibition,

(B) issuing an administrative penalty order in accordance with subsection (d) of this section, or

(C) bringing a civil action in accordance with subsection (b) of this section.

(3) EPA enforcement of other requirements

Except for a requirement or prohibition enforceable under the preceding provisions of this subsection, whenever, on the basis of any information available to the Administrator, the Administrator finds that any person has violated, or is in violation of, any other requirement or prohibition of this subchapter, section 7603 of this title, subchapter IV–A, subchapter V, or subchapter VI of this chapter, including, but not limited to, a requirement or prohibition of any rule, plan, order, waiver, or permit promulgated, issued, or approved under those provisions or subchapters, or for the payment

of any fee owed to the United States under this chapter (other than subchapter II of this chapter), the Administrator may—

(A) issue an administrative penalty order in accordance with subsection (d) of this section,

(B) issue an order requiring such person to comply with such requirement or prohibition,

(C) bring a civil action in accordance with subsection (b) of this section or section 7605 of this title, or

(D) request the Attorney General to commence a criminal action in accordance with subsection (c) of this section.

(4) Requirements for orders

An order issued under this subsection (other than an order relating to a violation of section 7412 of this title) shall not take effect until the person to whom it is issued has had an opportunity to confer with the Administrator concerning the alleged violation. A copy of any order issued under this subsection shall be sent to the State air pollution control agency of any State in which the violation occurs. Any order issued under this subsection shall state with reasonable specificity the nature of the violation and specify a time for compliance which the Administrator determines is reasonable, taking into account the seriousness of the violation and any good faith efforts to comply with applicable requirements. In any case in which an order under this subsection (or notice to a violator under paragraph (1)) is issued to a corporation, a copy of such order (or notice) shall be issued to appropriate corporate officers. An order issued under this subsection shall require the person to whom it was

issued to comply with the requirement as expeditiously as practicable, but in no event longer than one year after the date the order was issued, and shall be nonrenewable. No order issued under this subsection shall prevent the State or the Administrator from assessing any penalties nor otherwise affect or limit the State's or the United States authority to enforce under other provisions of this chapter, nor affect any person's obligations to comply with any section of this chapter or with a term or condition of any permit or applicable implementation plan promulgated or approved under this chapter.

(5) Failure to comply with new source requirements

Whenever, on the basis of any available information, the Administrator finds that a State is not acting in compliance with any requirement or prohibition of the chapter relating to the construction of new sources or the modification of existing sources, the Administrator may—

(A) issue an order prohibiting the construction or modification of any major stationary source in any area to which such requirement applies;

(B) issue an administrative penalty order in accordance with subsection (d) of this section, or

(C) bring a civil action under subsection (b) of this section.

Nothing in this subsection shall preclude the United States from commencing a criminal action under subsection (c) of this section at any time for any such violation.

(b) Civil judicial enforcement

The Administrator shall, as appropriate, in the case of any person that is the owner or operator of an affected source, a major emitting facility, or a major stationary source, and may, in the case of any other person, commence a civil action for a permanent or temporary injunction, or to assess and recover a civil penalty of not more than $25,000 per day for each violation, or both, in any of the following instances:

(1) Whenever such person has violated, or is in violation of, any requirement or prohibition of an applicable implementation plan or permit. Such an action shall be commenced (A) during any period of federally assumed enforcement, or (B) more than 30 days following the date of the Administrator's notification under subsection (a)(1) of this section that such person has violated, or is in violation of, such requirement or prohibition.

(2) Whenever such person has violated, or is in violation of, any other requirement or prohibition of this subchapter, section 7603 of this title, subchapter IV–A, subchapter V, or subchapter VI of this chapter, including, but not limited to, a requirement or prohibition of any rule, order, waiver or permit promulgated, issued, or approved under this chapter, or for the payment of any fee owed the United States under this chapter (other than subchapter II of this chapter).

(3) Whenever such person attempts to construct or modify a major stationary source in any area with respect to which a finding under subsection (a)(5) of this section has been made.

Any action under this subsection may be brought in the district court of the United States for the district in which the violation is alleged to have occurred, or is occurring, or in which the defendant resides, or where the defendant's principal place of business is located, and such court shall have jurisdiction to restrain such violation, to require compliance, to assess such civil penalty, to collect any fees owed the United States under this chapter (other than subchapter II of this chapter) and any noncompliance assessment and nonpayment penalty owed under section 7420 of this title, and to award any other appropriate relief. Notice of the commencement of such action shall be given to the appropriate State air pollution control agency. In the case of any action brought by the Administrator under this subsection, the court may award costs of litigation (including reasonable attorney and expert witness fees) to the party or parties against whom such action was brought if the court finds that such action was unreasonable.

(c) Criminal penalties

(1) Any person who knowingly violates any requirement or prohibition of an applicable implementation plan (during any period of federally assumed enforcement or more than 30 days after having been notified under subsection (a)(1) of this section by the Administrator that such person is violating such requirement or prohibition), any order under subsection (a) of this section, requirement or prohibition of section 7411(e) of this title (relating to new source performance standards), section 7412 of this title, section 7414 of this title (relating to inspections, etc.), section 7429 of this title (relating to solid waste combustion), section 7475(a) of this

title (relating to preconstruction requirements), an order under section 7477 of this title (relating to preconstruction requirements), an order under section 7603 of this title (relating to emergency orders), section 7661a(a) or 7661b(c) of this title (relating to permits), or any requirement or prohibition of subchapter IV–A of this chapter (relating to acid deposition control), or subchapter VI of this chapter (relating to stratospheric ozone control), including a requirement of any rule, order, waiver, or permit promulgated or approved under such sections or subchapters, and including any requirement for the payment of any fee owed the United States under this chapter (other than subchapter II of this chapter) shall, upon conviction, be punished by a fine pursuant to title 18 or by imprisonment for not to exceed 5 years, or both. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.

(2) Any person who knowingly—

(A) makes any false material statement, representation, or certification in, or omits material information from, or knowingly alters, conceals, or fails to file or maintain any notice, application, record, report, plan, or other document required pursuant to this chapter to be either filed or maintained (whether with respect to the requirements imposed by the Administrator or by a State);

(B) fails to notify or report as required under this chapter; or

(C) falsifies, tampers with, renders inaccurate, or fails to install any monitoring device or method required to be maintained or followed under this chapter

shall, upon conviction, be punished by a fine pursuant to title 18 or by imprisonment for not more than 2 years, or both. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.

(3) Any person who knowingly fails to pay any fee owed the United States under this subchapter, subchapter III, IV–A, V, or VI of this chapter shall, upon conviction, be punished by a fine pursuant to title 18 or by imprisonment for not more than 1 year, or both. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.

(4) Any person who negligently releases into the ambient air any hazardous air pollutant listed pursuant to section 7412 of this title or any extremely hazardous substance listed pursuant to section 11002(a)(2) of this title that is not listed in section 7412 of this title, and who at the time negligently places another person in imminent danger of death or serious bodily injury shall, upon conviction, be punished by a fine under title 18 or by imprisonment for not more than 1 year, or both. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum

punishment shall be doubled with respect to both the fine and imprisonment.

(5)(A) Any person who knowingly releases into the ambient air any hazardous air pollutant listed pursuant to section 7412 of this title or any extremely hazardous substance listed pursuant to section 11002(a)(2) of this title that is not listed in section 7412 of this title, and who knows at the time that he thereby places another person in imminent danger of death or serious bodily injury shall, upon conviction, be punished by a fine under title 18 or by imprisonment of not more than 15 years, or both. Any person committing such violation which is an organization shall, upon conviction under this paragraph, be subject to a fine of not more than $1,000,000 for each violation. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment. For any air pollutant for which the Administrator has set an emissions standard or for any source for which a permit has been issued under subchapter V of this chapter, a release of such pollutant in accordance with that standard or permit shall not constitute a violation of this paragraph or paragraph (4).

(B) In determining whether a defendant who is an individual knew that the violation placed another person in imminent danger of death or serious bodily injury—

(i) the defendant is responsible only for actual awareness or actual belief possessed; and

(ii) knowledge possessed by a person other than the defendant, but not by the defendant, may not be attributed to the defendant;

except that in proving a defendant's possession of actual knowledge, circumstantial evidence may be used, including evidence that the defendant took affirmative steps to be shielded from relevant information.

(C) It is an affirmative defense to a prosecution that the conduct charged was freely consented to by the person endangered and that the danger and conduct charged were reasonably foreseeable hazards of—

(i) an occupation, a business, or a profession; or

(ii) medical treatment or medical or scientific experimentation conducted by professionally approved methods and such other person had been made aware of the risks involved prior to giving consent.

The defendant may establish an affirmative defense under this subparagraph by a preponderance of the evidence.

(D) All general defenses, affirmative defenses, and bars to prosecution that may apply with respect to other Federal criminal offenses may apply under subparagraph (A) of this paragraph and shall be determined by the courts of the United States according to the principles of common law as they may be interpreted in the light of reason and experience. Concepts of justification and excuse applicable under this section may be developed in the light of reason and experience.

(E) The term "organization" means a legal entity, other than a government, established or organized for any purpose, and such term includes a corporation, company, association, firm, partnership, joint stock company, foundation, institution, trust, society, union, or any other association of persons.

(F) The term "serious bodily injury" means bodily injury which involves a substantial risk of death, unconsciousness, extreme physical pain, protracted and obvious disfigurement or protracted loss or impairment of the function of a bodily member, organ, or mental faculty.

(6) For the purpose of this subsection, the term "person" includes, in addition to the entities referred to in section 7602(e) of this title, any responsible corporate officer.

(d) Administrative assessment of civil penalties

(1) The Administrator may issue an administrative order against any person assessing a civil administrative penalty of up to $25,000, per day of violation, whenever, on the basis of any available information, the Administrator finds that such person—

(A) has violated or is violating any requirement or prohibition of an applicable implementation plan (such order shall be issued (i) during any period of federally assumed enforcement, or (ii) more than thirty days following the date of the Administrator's notification under subsection (a)(1) of this section of a finding that such person has violated or is violating such requirement or prohibition); or

(B) has violated or is violating any other requirement or prohibition of this subchapter or subchapter III, IV–A, V, or VI of this chapter,

including, but not limited to, a requirement or prohibition of any rule, order, waiver, permit, or plan promulgated, issued, or approved under this chapter, or for the payment of any fee owed the United States under this chapter (other than subchapter II of this chapter); or

(C) attempts to construct or modify a major stationary source in any area with respect to which a finding under subsection (a)(5) of this section has been made.

The Administrator's authority under this paragraph shall be limited to matters where the total penalty sought does not exceed $200,000 and the first alleged date of violation occurred no more than 12 months prior to the initiation of the administrative action, except where the Administrator and the Attorney General jointly determine that a matter involving a larger penalty amount or longer period of violation is appropriate for administrative penalty action. Any such determination by the Administrator and the Attorney General shall not be subject to judicial review.

(2)(A) An administrative penalty assessed under paragraph (1) shall be assessed by the Administrator by an order made after opportunity for a hearing on the record in accordance with sections 554 and 556 of title 5. The Administrator shall issue reasonable rules for discovery and other procedures for hearings under this paragraph. Before issuing such an order, the Administrator shall give written notice to the person to be assessed an administrative penalty of the Administrator's proposal to issue such order and provide such person an opportunity to request such a hearing on the order, within 30 days of the date the notice is received by such person.

(B) The Administrator may compromise, modify, or remit, with or without conditions, any administrative penalty which may be imposed under this subsection.

(3) The Administrator may implement, after consultation with the Attorney General and the States, a field citation program through regulations establishing appropriate minor violations for which field citations assessing civil penalties not to exceed $5,000 per day of violation may be issued by officers or employees designated by the Administrator. Any person to whom a field citation is assessed may, within a reasonable time as prescribed by the Administrator through regulation, elect to pay the penalty assessment or to request a hearing on the field citation. If a request for a hearing is not made within the time specified in the regulation, the penalty assessment in the field citation shall be final. Such hearing shall not be subject to section 554 or 556 of title 5, but shall provide a reasonable opportunity to be heard and to present evidence. Payment of a civil penalty required by a field citation shall not be a defense to further enforcement by the United States or a State to correct a violation, or to assess the statutory maximum penalty pursuant to other authorities in the chapter, if the violation continues.

(4) Any person against whom a civil penalty is assessed under paragraph (3) of this subsection or to whom an administrative penalty order is issued under paragraph (1) of this subsection may seek review of such assessment in the United States District Court for the District of Columbia or for the district in which the violation is alleged to have occurred, in which such person resides, or where such person's principal place of business is located,

by filing in such court within 30 days following the date the administrative penalty order becomes final under paragraph (2), the assessment becomes final under paragraph (3), or a final decision following a hearing under paragraph (3) is rendered, and by simultaneously sending a copy of the filing by certified mail to the Administrator and the Attorney General. Within 30 days thereafter, the Administrator shall file in such court a certified copy, or certified index, as appropriate, of the record on which the administrative penalty order or assessment was issued. Such court shall not set aside or remand such order or assessment unless there is not substantial evidence in the record, taken as a whole, to support the finding of a violation or unless the order or penalty assessment constitutes an abuse of discretion. Such order or penalty assessment shall not be subject to review by any court except as provided in this paragraph. In any such proceedings, the United States may seek to recover civil penalties ordered or assessed under this section.

(5) If any person fails to pay an assessment of a civil penalty or fails to comply with an administrative penalty order—

(A) after the order or assessment has become final, or

(B) after a court in an action brought under paragraph (4) has entered a final judgment in favor of the Administrator,

the Administrator shall request the Attorney General to bring a civil action in an appropriate district court to enforce the order or to recover the amount ordered or assessed (plus interest at rates established pursuant to section 6621(//a)(2) of title 26 from the

date of the final order or decision or the date of the final judgment, as the case may be). In such an action, the validity, amount, and appropriateness of such order or assessment shall not be subject to review. Any person who fails to pay on a timely basis a civil penalty ordered or assessed under this section shall be required to pay, in addition to such penalty and interest, the United States enforcement expenses, including but not limited to attorneys fees and costs incurred by the United States for collection proceedings and a quarterly nonpayment penalty for each quarter during which such failure to pay persists. Such nonpayment penalty shall be 10 percent of the aggregate amount of such person's outstanding penalties and nonpayment penalties accrued as of the beginning of such quarter.

(e) Penalty assessment criteria

(1) In determining the amount of any penalty to be assessed under this section or section 7604(a) of this title, the Administrator or the court, as appropriate, shall take into consideration (in addition to such other factors as justice may require) the size of the business, the economic impact of the penalty on the business, the violator's full compliance history and good faith efforts to comply, the duration of the violation as established by any credible evidence (including evidence other than the applicable test method), payment by the violator of penalties previously assessed for the same violation, the economic benefit of noncompliance, and the seriousness of the violation. The court shall not assess penalties for noncompliance with administrative subpoenas under section 7607(a) of this title, or actions under section 7414 of this title,

where the violator had sufficient cause to violate or fail or refuse to comply with such subpoena or action.

(2) A penalty may be assessed for each day of violation. For purposes of determining the number of days of violation for which a penalty may be assessed under subsection (b) or (d)(1) of this section, or section 7604(a) of this title, or an assessment may be made under section 7420 of this title, where the Administrator or an air pollution control agency has notified the source of the violation, and the plaintiff makes a prima facie showing that the conduct or events giving rise to the violation are likely to have continued or recurred past the date of notice, the days of violation shall be presumed to include the date of such notice and each and every day thereafter until the violator establishes that continuous compliance has been achieved, except to the extent that the violator can prove by a preponderance of the evidence that there were intervening days during which no violation occurred or that the violation was not continuing in nature.

(f) Awards

The Administrator may pay an award, not to exceed $10,000, to any person who furnishes information or services which lead to a criminal conviction or a judicial or administrative civil penalty for any violation of this subchapter or subchapter III, IV–A, V, or VI of this chapter enforced under this section. Such payment is subject to available appropriations for such purposes as provided in annual appropriation Acts. Any officer, or employee of the United States or any State or local government who furnishes information or renders service in the performance of an official duty is ineligible for payment under this subsection. The

Administrator may, by regulation, prescribe additional criteria for eligibility for such an award.

(g) Settlements; public participation

At least 30 days before a consent order or settlement agreement of any kind under this chapter to which the United States is a party (other than enforcement actions under this section, section 7420 of this title, or subchapter II of this chapter, whether or not involving civil or criminal penalties, or judgments subject to Department of Justice policy on public participation) is final or filed with a court, the Administrator shall provide a reasonable opportunity by notice in the Federal Register to persons who are not named as parties or intervenors to the action or matter to comment in writing. The Administrator or the Attorney General, as appropriate, shall promptly consider any such written comments and may withdraw or withhold his consent to the proposed order or agreement if the comments disclose facts or considerations which indicate that such consent is inappropriate, improper, inadequate, or inconsistent with the requirements of this chapter. Nothing in this subsection shall apply to civil or criminal penalties under this chapter.

(h) Operator

For purposes of the provisions of this section and section 7420 of this title, the term "operator", as used in such provisions, shall include any person who is senior management personnel or a corporate officer. Except in the case of knowing and willful violations, such term shall not include any person who is a stationary engineer or technician responsible for the operation, maintenance, repair, or monitoring of equipment and facilities and who often has

supervisory and training duties but who is not senior management personnel or a corporate officer. Except in the case of knowing and willful violations, for purposes of subsection (c)(4) of this section, the term "a person" shall not include an employee who is carrying out his normal activities and who is not a part of senior management personnel or a corporate officer. Except in the case of knowing and willful violations, for purposes of paragraphs (1), (2), (3), and (5) of subsection (c) of this section the term "a person" shall not include an employee who is carrying out his normal activities and who is acting under orders from the employer.

42 U.S.C. § 7604

CITIZEN SUITS

(a) Authority to bring civil action; jurisdiction

Except as provided in subsection (b) of this section, any person may commence a civil action on his own behalf—

(1) against any person (including (i) the United States, and (ii) any other governmental instrumentality or agency to the extent permitted by the Eleventh Amendment to the Constitution) who is alleged to have violated (if there is evidence that the alleged violation has been repeated) or to be in violation of (A) an emission standard or limitation under this chapter or (B) an order issued by the Administrator or a State with respect to such a standard or limitation,

(2) against the Administrator where there is alleged a failure of the Administrator to perform any act or duty under this chapter which is not discretionary with the Administrator, or

(3) against any person who proposes to construct or constructs any new or modified major emitting facility without a permit required under part C of subchapter I of this chapter (relating to significant deterioration of air quality) or part D of subchapter I of this chapter (relating to nonattainment) or who is alleged to have violated (if there is evidence that the alleged violation has been repeated) or to be in violation of any condition of such permit.

The district courts shall have jurisdiction, without regard to the amount in controversy or the citizenship of the parties, to enforce such an emission

standard or limitation, or such an order, or to order the Administrator to perform such act or duty, as the case may be, and to apply any appropriate civil penalties (except for actions under paragraph (2)). The district courts of the United States shall have jurisdiction to compel (consistent with paragraph (2) of this subsection) agency action unreasonably delayed, except that an action to compel agency action referred to in section 7607(b) of this title which is unreasonably delayed may only be filed in a United States District Court within the circuit in which such action would be reviewable under section 7607(b) of this title. In any such action for unreasonable delay, notice to the entities referred to in subsection (b)(1)(A) of this section shall be provided 180 days before commencing such action.

(b) Notice

No action may be commenced—

(1) under subsection (a)(1) of this section—

(A) prior to 60 days after the plaintiff has given notice of the violation (i) to the Administrator, (ii) to the State in which the violation occurs, and (iii) to any alleged violator of the standard, limitation, or order, or

(B) if the Administrator or State has commenced and is diligently prosecuting a civil action in a court of the United States or a State to require compliance with the standard, limitation, or order, but in any such action in a court of the United States any person may intervene as a matter of right.

(2) under subsection (a)(2) of this section prior to 60 days after the plaintiff has given notice of such action to the Administrator,

except that such action may be brought immediately after such notification in the case of an action under this section respecting a violation of section 7412(i)(3)(A) or (f)(4) of this title or an order issued by the Administrator pursuant to section 7413(a) of this title. Notice under this subsection shall be given in such manner as the Administrator shall prescribe by regulation.

(c) Venue; intervention by Administrator; service of complaint; consent judgment

(1) Any action respecting a violation by a stationary source of an emission standard or limitation or an order respecting such standard or limitation may be brought only in the judicial district in which such source is located.

(2) In any action under this section, the Administrator, if not a party, may intervene as a matter of right at any time in the proceeding. A judgment in an action under this section to which the United States is not a party shall not, however, have any binding effect upon the United States.

(3) Whenever any action is brought under this section the plaintiff shall serve a copy of the complaint on the Attorney General of the United States and on the Administrator. No consent judgment shall be entered in an action brought under this section in which the United States is not a party prior to 45 days following the receipt of a copy of the proposed consent judgment by the Attorney General and the Administrator during which time the Government may submit its comments on the

proposed consent judgment to the court and parties or may intervene as a matter of right.

(d) Award of costs; security

The court, in issuing any final order in any action brought pursuant to subsection (a) of this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the court determines such award is appropriate. The court may, if a temporary restraining order or preliminary injunction is sought, require the filing of a bond or equivalent security in accordance with the Federal Rules of Civil Procedure.

(e) Nonrestriction of other rights

Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any emission standard or limitation or to seek any other relief (including relief against the Administrator or a State agency). Nothing in this section or in any other law of the United States shall be construed to prohibit, exclude, or restrict any State, local, or interstate authority from—

(1) bringing any enforcement action or obtaining any judicial remedy or sanction in any State or local court, or

(2) bringing any administrative enforcement action or obtaining any administrative remedy or sanction in any State or local administrative agency, department or instrumentality,

against the United States, any department, agency, or instrumentality thereof, or any officer, agent, or employee thereof under State or local law respecting

control and abatement of air pollution. For provisions requiring compliance by the United States, departments, agencies, instrumentalities, officers, agents, and employees in the same manner as nongovernmental entities, see section 7418 of this title.

(f) "Emission standard or limitation under this chapter" defined

For purposes of this section, the term "emission standard or limitation under this chapter" means—

(1) a schedule or timetable of compliance, emission limitation, standard of performance or emission standard,

(2) a control or prohibition respecting a motor vehicle fuel or fuel additive, or

(3) any condition or requirement of a permit under part C of subchapter I of this chapter (relating to significant deterioration of air quality) or part D of subchapter I of this chapter (relating to nonattainment),, section 7419 of this title (relating to primary nonferrous smelter orders), any condition or requirement under an applicable implementation plan relating to transportation control measures, air quality maintenance plans, vehicle inspection and maintenance programs or vapor recovery requirements, section 7545(e) and (f) of this title (relating to fuels and fuel additives), section 7491 of this title (relating to visibility protection), any condition or requirement under subchapter VI of this chapter (relating to ozone protection), or any requirement under section 7411 or 7412 of this title (without regard to whether such requirement is expressed as an emission standard or otherwise); or

(4) any other standard, limitation, or schedule established under any permit issued pursuant to subchapter V of this chapter or under any applicable State implementation plan approved by the Administrator, any permit term or condition, and any requirement to obtain a permit as a condition of operations.

which is in effect under this chapter (including a requirement applicable by reason of section 7418 of this title) or under an applicable implementation plan.

(g) Penalty fund

(1) Penalties received under subsection (a) of this section shall be deposited in a special fund in the United States Treasury for licensing and other services. Amounts in such fund are authorized to be appropriated and shall remain available until expended, for use by the Administrator to finance air compliance and enforcement activities. The Administrator shall annually report to the Congress about the sums deposited into the fund, the sources thereof, and the actual and proposed uses thereof.

(2) Notwithstanding paragraph (1) the court in any action under this subsection 6 to apply civil penalties shall have discretion to order that such civil penalties, in lieu of being deposited in the fund referred to in paragraph (1), be used in beneficial mitigation projects which are consistent with this chapter and enhance the public health or the environment. The court shall obtain the view of the Administrator in exercising such discretion and selecting any such projects. The amount of any such payment in any such action shall not exceed $100,000.

CERTIFICATE OF SERVICE

I, Donna J. Wolf, hereby certify that 40 copies of the foregoing Petition for Writ of Certiorari in *American Municipal Power, Inc. v. United States Environmental Protection Agency, et al.*, were sent via Next Day Service to the U.S. Supreme Court, and 3 copies were sent via Next Day Service and e-mail to the following parties listed below, this 23rd day of March, 2017:

Jeffrey B. Wall
Acting Solicitor General
United States Department of Justice
Room 5616
950 Pennsylvania Avenue, N.W.
Washington, DC 20530
(202) 514-2217
supremectbriefs@usdoj.gov

Scott Pruitt
USEPA Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N. W.
Mail Code: 1101A
Washington, DC 20460
202-564-4700
pruitt.scott@epa.gov

Counsel for Respondents

Jeffrey A. Knight
PILLSBURY WINTHROP SHAW PITTMAN LLP
1200 Seventeenth Street, NW
Washington, DC 20036-3006
(202) 663-9152
jeffrey.knight@pillsburylaw.com

Counsel for the American Petroleum Institute

William F. Lane
Alan H. McConnell
KILPATRICK TOWNSEND & STOCKTON LLP
4208 Six Forks Road, Suite 1400
Raleigh, NC 27609
(919) 420-1794
blane@kilpatricktownsend.com

Counsel for Eastman Chemical Company and American Home Furnishings Alliance, Inc.

Claudia M. O'Brien
Stacey L. VanBelleghem
Eli Hopson
LATHAM &WATKINS LLP
555 Eleventh Street, N.W., Suite 1000
Washington, DC 20004
(202) 637-2181
claudia.o'brien@lw.com

Counsel for JELD-WEN, Inc.

Timothy S. Bishop
Kevin G. Desharnais
Chad M. Clamage
MAYER BROWN LLP
71 South Wacker Drive
Chicago, IL 60606
(312) 782-0600
tbishop@mayerbrown.com

Counsel for United States Sugar Corporation

Jane C. Luxton
CLARK HILL PLC
601 Pennsylvania Avenue NW
North Building, Suite 1000
Washington, DC 20004
(202) 572-8674
jluxton@clarkhill.com

Counsel for the Treated Wood Council

Lauren E. Freeman
Elizabeth L. Horner
HUNTON &WILLIAMS LLP
2200 Pennsylvania Avenue, NW
Washington, DC 20037
(202) 955-1500
lfreeman@hunton.com

Counsel for Utility Air Regulatory Group

Shannon S. Broome
HUNTON & WILLIAMS LLP
575 Market Street
Suite 3700
San Francisco, CA 94105
(415) 975-3718
sbroome@hunton.com

Counsel for Auto Industry Forum

Quentin Riegel
MANUFACTURERS' CENTER FOR
LEGAL ACTION
733 10th Street, NW, Suite 700
Washington, DC 20001
(202) 637-3000
qriegel@nam.org

Counsel for the National Association of Manufacturers

William L. Wehrum, Jr.
HUNTON &WILLIAMS LLP
2200 Pennsylvania Ave., NW
Washington, DC 20037
(202) 955-1637
wwehrum@hunton.com

Counsel for American Forest & Paper Association, American Wood Council, Biomass Power Association, Chamber of Commerce of the United States of America, Corn Refiners Association, National Oilseed Processors Association, Rubber Manufacturers Association, Southeastern Lumber Manufacturers Association, American Coke and Coal Chemicals Institute, American Iron and Steel Institute, and Energy Recovery Council

Jan Poling
Vice President, General Counsel and
Corporate Secretary
AMERICAN FOREST & PAPER ASSOCIATION
1101 K Street, NW, Suite 700
Washington, DC 20005
(202) 463-2590

James S. Pew
EARTHJUSTICE
1625 Massachusetts Ave., NW
Suite 702
Washington, DC 20036-2212
(202) 667-4500
jpew@earthjustice.org

Counsel for Louisiana Environmental Action Network, Sierra Club, Clean Air Council, Partnership for Policy Integrity, and Environmental Integrity Project

Sanjay Narayan
SIERRA CLUB ENVIRONMENTAL LAW PROGRAM
85 Second St., Second Floor
San Francisco, CA 94105
(415) 977-5769
sanjay.narayan@sierraclub.org

Counsel for Sierra Club

Larry Benton Alexander
JONES, FOSTER, JOHNSTON, & STUBBS, P.A.
505 South Flagler Drive, Suite 1100
West Palm Beach, FL 33401
(561) 650-0494
lalexander@jonesfoster.com

Counsel for Florida Sugar Industry

Carol F. McCabe
MANKO, GOLD, KATCHER & FOX, LLP
Suite 500
401 City Avenue, Suite 901
Bala Cynwyd, PA 19004
(484) 430-5700
cmccabe@mankogold.com

Counsel for Waste Management, Inc. and
WM Renewable Energy, LLC

Lisa M. Jaeger
Brittany M. Pemberton
BRACEWELL LLP
2001 M Street, NW
Suite 900
Washington, DC 20036
202.828.5800 telephone
202.857.4824 facsimile
Lisa.Jaeger@bracewelllaw.com
Brittany.Pemberton@bracewelllaw.com

Counsel for Council of Industrial Boiler Owners

Douglas A. McWilliams
Counsel of Record
Allen A. Kacenjar
Robert D. Cheren
SQUIRE PATTON BOGGS (US) LLP
4900 Key Tower, 127 Public Square
Cleveland, OH 44114-1304
(216) 479-8500
douglas.mcwilliams@squirepb.com

Counsel for Petitioner
American Municipal Power, Inc.

I further certify that following parties listed below have consented to electronic service only:

Ronald A. Shipley
Attorney at Law
10229 Crosscut Way
Damascus, MD 20872-2912
(301) 540-0315
ron@rshipleylaw.com

Counsel for Coalition for Responsible Waste Incineration

David M. Friedland
BEVERIDGE & DIAMOND, P.C.
1350 I Street, NW, Suite 700
Washington, DC 20005-3311
(202) 789-6047
dfriedland@bdlaw.com

Counsel for American Chemistry Council

All parties required to be served have been served.

I further declare under penalty of perjury that the foregoing is true and correct. This Certificate is executed on March 23, 2017.

_____

Donna J. Wolf
Becker Gallagher Legal Publishing, Inc.
8790 Governor's Hill Drive, Suite 102
Cincinnati, OH 45249
(800) 890-5001

Subscribed and sworn to before me by the said Affiant on the date below designated.

Date:_____

_____
Notary Public

[seal]

BECKER GALLAGHER
Briefs and Records

DONNA J. WOLF, J.D.
JULIE A. KERSHNER, J.D.

March 23, 2017

Scott S. Harris
Clerks Office
United States Supreme Court
1 First Street, NE
Washington, DC 20543

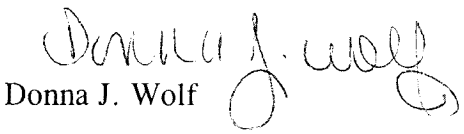
Re: Petition for Writ of Certiorari in *American Municipal Power, Inc. v. United States Environmental Protection Agency, et al.*

Dear Mr. Harris:

Enclosed please find 40 copies of the Petition for Writ of Certiorari in *American Municipal Power, Inc. v. United States Environmental Protection Agency, et al.* and a check in the amount of $300.00 for the filing fee.

Also enclosed you will find one (1) additional copy with an addressed and metered envelope. Please file stamp this copy and return by U.S. Mail. Thank you for your courtesy in this matter. If you have any questions or concerns, please do not hesitate to contact us.

Very truly yours,



Donna J. Wolf

Enclosures

BECKER GALLAGHER LEGAL PUBLISHING INCORPORATED
(800) 890.5001
www.beckergallagher.com

Farragut Office Center
1725 I Street, NW, Suite 300
Washington, DC 20006

8790 Governor's Hill Drive
Suite 102
Cincinnati, Ohio 45249

CERTIFICATE OF SERVICE

I, Donna J. Wolf, hereby certify that 40 copies of the foregoing Petition for Writ of Certiorari in *American Municipal Power, Inc. v. United States Environmental Protection Agency, et al.*, were sent via Next Day Service to the U.S. Supreme Court, and 3 copies were sent via Next Day Service and e-mail to the following parties listed below, this 23rd day of March, 2017:

Jeffrey B. Wall
Acting Solicitor General
United States Department of Justice
Room 5616
950 Pennsylvania Avenue, N.W.
Washington, DC 20530
(202) 514-2217
supremectbriefs@usdoj.gov

Scott Pruitt
USEPA Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N. W.
Mail Code: 1101A
Washington, DC 20460
202-564-4700
pruitt.scott@epa.gov

Counsel for Respondents

Jeffrey A. Knight
PILLSBURY WINTHROP SHAW PITTMAN LLP
1200 Seventeenth Street, NW
Washington, DC 20036-3006
(202) 663-9152
jeffrey.knight@pillsburylaw.com

Counsel for the American Petroleum Institute

William F. Lane
Alan H. McConnell
KILPATRICK TOWNSEND & STOCKTON LLP
4208 Six Forks Road, Suite 1400
Raleigh, NC 27609
(919) 420-1794
blane@kilpatricktownsend.com

Counsel for Eastman Chemical Company and American Home Furnishings Alliance, Inc.

Claudia M. O'Brien
Stacey L. VanBelleghem
Eli Hopson
LATHAM &WATKINS LLP
555 Eleventh Street, N.W., Suite 1000
Washington, DC 20004
(202) 637-2181
claudia.o'brien@lw.com

Counsel for JELD-WEN, Inc.

Timothy S. Bishop
Kevin G. Desharnais
Chad M. Clamage
MAYER BROWN LLP
71 South Wacker Drive
Chicago, IL 60606
(312) 782-0600
tbishop@mayerbrown.com

Counsel for United States Sugar Corporation

Jane C. Luxton
CLARK HILL PLC
601 Pennsylvania Avenue NW
North Building, Suite 1000
Washington, DC 20004
(202) 572-8674
jluxton@clarkhill.com

Counsel for the Treated Wood Council

Lauren E. Freeman
Elizabeth L. Horner
HUNTON &WILLIAMS LLP
2200 Pennsylvania Avenue, NW
Washington, DC 20037
(202) 955-1500
lfreeman@hunton.com

Counsel for Utility Air Regulatory Group

Shannon S. Broome
HUNTON & WILLIAMS LLP
575 Market Street
Suite 3700
San Francisco, CA 94105
(415) 975-3718
sbroome@hunton.com

Counsel for Auto Industry Forum

Quentin Riegel
MANUFACTURERS' CENTER FOR
LEGAL ACTION
733 10th Street, NW, Suite 700
Washington, DC 20001
(202) 637-3000
qriegel@nam.org

Counsel for the National Association of Manufacturers

William L. Wehrum, Jr.
HUNTON &WILLIAMS LLP
2200 Pennsylvania Ave., NW
Washington, DC 20037
(202) 955-1637
wwehrum@hunton.com

Counsel for American Forest & Paper Association, American Wood Council, Biomass Power Association, Chamber of Commerce of the United States of America, Corn Refiners Association, National Oilseed Processors Association, Rubber Manufacturers Association, Southeastern Lumber Manufacturers Association, American Coke and Coal Chemicals Institute, American Iron and Steel Institute, and Energy Recovery Council

Jan Poling
Vice President, General Counsel and
Corporate Secretary
AMERICAN FOREST & PAPER ASSOCIATION
1101 K Street, NW, Suite 700
Washington, DC 20005
(202) 463-2590

James S. Pew
EARTHJUSTICE
1625 Massachusetts Ave., NW
Suite 702
Washington, DC 20036-2212
(202) 667-4500
jpew@earthjustice.org

Counsel for Louisiana Environmental Action Network, Sierra Club, Clean Air Council, Partnership for Policy Integrity, and Environmental Integrity Project

Sanjay Narayan
SIERRA CLUB ENVIRONMENTAL LAW PROGRAM
85 Second St., Second Floor
San Francisco, CA 94105
(415) 977-5769
sanjay.narayan@sierraclub.org

Counsel for Sierra Club

Larry Benton Alexander
JONES, FOSTER, JOHNSTON, & STUBBS, P.A.
505 South Flagler Drive, Suite 1100
West Palm Beach, FL 33401
(561) 650-0494
lalexander@jonesfoster.com

Counsel for Florida Sugar Industry

Carol F. McCabe
MANKO, GOLD, KATCHER & FOX, LLP
Suite 500
401 City Avenue, Suite 901
Bala Cynwyd, PA 19004
(484) 430-5700
cmccabe@mankogold.com

Counsel for Waste Management, Inc. and WM Renewable Energy, LLC

Lisa M. Jaeger
Brittany M. Pemberton
BRACEWELL LLP
2001 M Street, NW
Suite 900
Washington, DC 20036
202.828.5800 telephone
202.857.4824 facsimile
Lisa.Jaeger@bracewelllaw.com
Brittany.Pemberton@bracewelllaw.com

Counsel for Council of Industrial Boiler Owners

Douglas A. McWilliams
Counsel of Record
Allen A. Kacenjar
Robert D. Cheren
SQUIRE PATTON BOGGS (US) LLP
4900 Key Tower, 127 Public Square
Cleveland, OH 44114-1304
(216) 479-8500
douglas.mcwilliams@squirepb.com

Counsel for Petitioner American Municipal Power, Inc.

I further certify that following parties listed below have consented to electronic service only:

Ronald A. Shipley
Attorney at Law
10229 Crosscut Way
Damascus, MD 20872-2912
(301) 540-0315
ron@rshipleylaw.com

Counsel for Coalition for Responsible Waste Incineration

David M. Friedland
BEVERIDGE & DIAMOND, P.C.
1350 I Street, NW, Suite 700
Washington, DC 20005-3311
(202) 789-6047
dfriedland@bdlaw.com

Counsel for American Chemistry Council

All parties required to be served have been served.

I further declare under penalty of perjury that the foregoing is true and correct. This Certificate is executed on March 23, 2017.

Donna J. Wolf

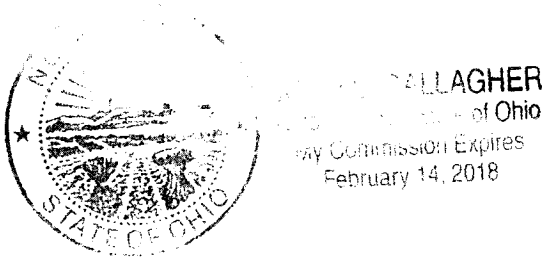
Donna J. Wolf
Becker Gallagher Legal Publishing, Inc.
8790 Governor's Hill Drive, Suite 102
Cincinnati, OH 45249
(800) 890-5001

Subscribed and sworn to before me by the said Affiant on the date below designated.

Date: March 23, 2017

Notary Public

[seal]



CERTIFICATE OF COMPLIANCE

No. _____

AMERICAN MUNICIPAL POWER, INC.,

Petitioner,

v.

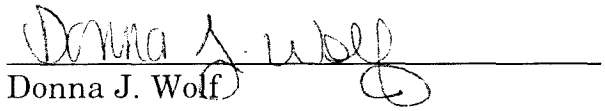
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, ET AL.,

Respondents.

As required by Supreme Court Rule 33.1(h), I certify that the Petition for Writ of Certiorari contains 8,125 words, excluding the parts of the Petition that are exempted by Supreme Court Rule 33.1(d).

I declare under penalty of perjury that the foregoing is true and correct.

Executed on March 23, 2017.



Donna J. Wolf
Becker Gallagher Legal Publishing, Inc.
8790 Governor's Hill Drive, Suite 102
Cincinnati, OH 45249
(800) 890-5001

Sworn to and subscribed before me by said Affiant on the date designated below.

Date: March 23, 2017

Notary Public

[seal]

JOHN D. GALLAGHER
Notary Public, State of Ohio
My Commission Expires
February 14, 2018

No. _____

IN THE

Supreme Court of the United States

AMERICAN MUNICIPAL POWER, INC.,

Petitioner,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, et al.,

Respondents.

On Petition for a Writ of Certiorari to the United States Court of Appeals for the District of Columbia Circuit

PETITION FOR WRIT OF CERTIORARI

DOUGLAS A. MCWILLIAMS
Counsel of Record
ALLEN A. KACENJAR
ROBERT D. CHEREN
SQUIRE PATTON BOGGS (US) LLP
4900 Key Tower
127 Public Square
Cleveland, Ohio 44114
(216) 479-8332
douglas.mcwilliams@squirepb.com

Counsel for Petitioner

March 23, 2017

No. _____

IN THE

Supreme Court of the United States

AMERICAN MUNICIPAL POWER, INC.,

Petitioner,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, et al.,

Respondents.

On Petition for a Writ of Certiorari to the United States Court of Appeals for the District of Columbia Circuit

PETITION FOR WRIT OF CERTIORARI

DOUGLAS A. MCWILLIAMS
Counsel of Record
ALLEN A. KACENJAR
ROBERT D. CHEREN
SQUIRE PATTON BOGGS (US) LLP
4900 Key Tower
127 Public Square
Cleveland, Ohio 44114
(216) 479-8332
douglas.mcwilliams@squirepb.com

Counsel for Petitioner

March 23, 2017

From:	Gaines, Cynthia
To:	Leavy, Jacqueline
Subject:	DRF for 24 Mar 17 - FW: Petition to repeal or amend EPA's Formaldehyde Emission Standards for Composite Wood Products
Date:	Friday, March 24, 2017 12:16:36 PM
Attachments:	removed.txt image002.png Nobilia Petition.pdf Attachment A.pdf Attachment B.pdf

---

Please submit as a DRF to Brian. Thanks.

From: Hope, Brian
Sent: Friday, March 24, 2017 11:05 AM
To: Gaines, Cynthia <Gaines.Cynthia@epa.gov>
Subject: FW: Petition to repeal or amend EPA's Formaldehyde Emission Standards for Composite Wood Products

Failed CMS Import
DRF, Full copy to Ryan
Thanks!

From: Lawrence, Robert F. [mailto:rlawrence@orrick.com]
Sent: Thursday, March 23, 2017 4:13 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Cc: Winchester, Erik <Winchester.Erik@epa.gov>
Subject: Petition to repeal or amend EPA's Formaldehyde Emission Standards for Composite Wood Products

Dear Administrator Pruitt,

Enclosed is Nobilia's petition to repeal or amend EPA's Formaldehyde Emission Standards for Composite Wood Products. 81 Fed. Reg. 89,674 (Dec. 12, 2016). Please contact me if you have questions or require additional information.

Robert F. Lawrence
Partner

Orrick
Washington, DC
T +1-202-339-8430
M (b) (6) [redacted]
rlawrence@orrick.com

NOTICE TO RECIPIENT | This e-mail is meant for only the intended recipient of the transmission, and may be a

communication privileged by law. If you received this e-mail in error, any review, use, dissemination, distribution, or copying of this e-mail is strictly prohibited. Please notify us immediately of the error by return e-mail and please delete this message from your system. Thank you in advance for your cooperation.

For more information about Orrick, please visit *http://www.orrick.com*.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 1 0 2017

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

Robert F. Lawrence
Orrick, Herrington & Sutcliffe, LLP
1152 15th Street, NW
Washington, D.C. 20005

Dear Mr. Lawrence:

The U.S. Environmental Protection Agency received your petition dated March 23, 2017, submitted on behalf of Nobilia-Werke J. Stickling GmbH & Co. KG. The petition invoked the Administrative Procedure Act, 5 U.S.C. § 553(e). Specifically, your petition requests that the agency amend or repeal the Formaldehyde Emission Standards for Composite Wood Products final rule, which published on December 12, 2016 (81 FR 89674) and currently is scheduled to become effective on May 22, 2017 (82 FR 14324). The petition also asks that the agency administratively stay the rule as it applies to Nobilia until this matter is resolved. Your request is being considered as a petition under the APA.

If you have any questions relating to your petition, please contact Erik Winchester of my staff at (202) 564-6450 or winchester.erik@epa.gov.

Sincerely,

Brian Symmes

Brian Symmes
Acting Director
National Program Chemicals Division
Office of Pollution Prevention and Toxics

orrick

March 23, 2017

By FedEx and Email

Robert F. Lawrence

E rlawrence@orrick.com
D +1 202 339 8430
F +1 202 339 8500

Scott Pruitt, Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460
Pruitt.Scott@epa.gov

Re: Petition to Amend or Repeal the Formaldehyde Emission Standards for Composite Wood Products

Dear Administrator Pruitt:

On December 12, 2016, the U.S. Environmental Protection Agency ("EPA" or "Agency") published the Formaldehyde Emission Standards for Composite Wood Products. 81 Fed. Reg. 89,674 (Dec. 12, 2016) ("Formaldehyde Rule" or "Rule").[1] On behalf of nobilia-Werke J. Stickling GmbH & Co. KG ("Nobilia") the undersigned respectfully requests that EPA (a) amend or, alternatively, repeal the Formaldehyde Rule, and (b) administratively stay the Formaldehyde Rule as it applies to Nobilia until EPA has resolved this petition.

As the Rule is presently written, finished wood products that comply with the Rule's emissions standards cannot be imported into or manufactured in the United States after December 2017 if they were manufactured abroad with non-compliant raw materials. Applying the emissions standard to the raw materials, instead of finished products, will unnecessarily impose costs on U.S. consumers and does not advance the purposes of the Rule. Given the short compliance timeline for the Rule, it is urgent that

[1] The Formaldehyde Rule was scheduled to go into effect on February 10, 2017. However, the effective date of the rule has been delayed until May 22, 2017. 82 Fed. Reg. 14,324, 14,325 (Mar. 20, 2017). However, the compliance deadlines remain the same (December 12, 2017 for the restrictions of greatest concern to Nobilia).

EPA take action on this petition in timely manner and avoid the adverse impacts of implementing the Rule in its current form.

I. Nobilia is an "interested person" entitled to petition the EPA to amend or to repeal the Formaldehyde Rule.

Pursuant to the Administrative Procedure Act ("APA") Section 553(e), Nobilia respectfully petitions EPA to repeal or amend the Formaldehyde Rule to allow finished products that meet the Rule's emissions standards to be imported into or manufactured in the United States. Nobilia is an "interested person" entitled to petition EPA to amend or repeal the Formaldehyde Rule under the APA because Nobilia is a "fabricator" subject to the requirements of the Formaldehyde Rule.

Nobilia is a German manufacturer of kitchen cabinets. Though Nobilia manufactures exclusively at its headquarters in Germany, its finished products are exported from Germany to customers in approximately 80 countries, including the United States. Nobilia's kitchen cabinets incorporate particleboard and some medium density fiberboard ("MDF") that will be subject to the Rule when it is fully effective.

Under the Formaldehyde Rule, Nobilia is required to use cores that are compliant with the Formaldehyde Rule's emissions standards and satisfy certification requirements for products it intends to import into the United States. Nobilia must keep records documenting that its products are compliant with the Rule and ensure its products are labeled with a statement indicating its products are compliant with Toxic Substances Control Act ("TSCA"). Nobilia also is required to provide import certification under Section 13 of the TSCA. Therefore, Nobilia is directly affected by the Formaldehyde Rule and its requirements.

II. Nobilia requests that EPA repeal or amend the Formaldehyde Rule to permit importation or sale of finished products that meet the emissions standards.

In this petition, Nobilia requests that EPA repeal the Formaldehyde Rule in its entirety. Alternatively, Nobilia requests that EPA amend the Formaldehyde Rule to allow importation and sale of products that comply with the Rule's emissions requirements in finished form, regardless of whether they are manufactured with a compliant core. Specifically, Nobilia requests that EPA amend the Formaldehyde Rule to create a variance allowing fabricators of finished products to demonstrate compliance based on emissions from the finished product rather than emissions from the raw core used to manufacture the wood product. Like many manufacturers, Nobilia's products encapsulate the core, and effectively prevent

or reduce formaldehyde emissions to compliant levels. Requiring the core to comply with the Rule's emissions standards in addition to requiring the finished product to comply, does not advance the purposes of the Rule or protect public health. Moreover, the strict mandate to use compliant cores imposes unnecessary costs on the wood product industry and erects market barriers, without furthering the Rule's goal of limiting consumers' exposure to formaldehyde emissions. Because the Rule unnecessarily reorganizes what is a large international marketplace, Nobilia requests that EPA reconsider the rule, and amend it or repeal it, to address the apparent overreach and overbroadness in regulatory restrictions.

III. EPA's mandate that wood products must meet emissions standards in unfinished form is unsupported by data and arbitrary and capricious.

As promulgated by EPA, the Rule requires that *all* composite wood products[2] comply with the emissions standards established by EPA. The Rule requires that manufacturers test the cores of wood products to certify compliance with the emissions standards. Nobilia does not agree with EPA that TSCA requires testing of all composite wood cores; the statute permits testing finished wood products. EPA's decision to limit testing of wood products to cores, effectively banning testing of finished products, is unreasonable because studies have shown that finishes on wood products can reduce emissions.[3] Moreover, the emissions from finished products more accurately represent emissions that affect end-use consumers—the underlying concern of the Rule. Finally, allowing voluntary testing of finished products does not undermine the efficiency of EPA's testing program.

A. EPA's interpretation that TSCA requires that wood products comply with formaldehyde emissions standards only in unfinished form is unreasonable.

EPA argues that the text of TSCA requires EPA to regulate wood products exclusively in unfinished form. According to EPA, TSCA section 601(b) (4)[4] clearly states that formaldehyde emissions standards

---

[2] "Composite wood products" means hardwood plywood made with a veneer or composite core, medium-density fiberboard, and particleboard. 40 C.F.R. § 770.3.

[3] *See* Composite Panel Association, Technical Bulletin: The Role of Laminates and Coatings as VOC Emission Barriers in Composite Wood Panels (2003); California Air Resources Board, Laminated Products Testing – Preliminary Results/Conclusion (2013); American Home Furnishing Association ("AHFA"), Composite Panel Deconstruction Experiment (2009); AHFA, UL Study: Decay Emissions Test for Furniture (2013).

[4] *See also* 111th Congress, 2d Session, 111-169, Committee on Environment and Public Works, Formaldehyde Standards for Composite Wood Products, April 19, 2010 ("The formaldehyde emissions standard shall apply regardless of whether an applicable hardwood plywood, medium-density fiberboard, or particleboard is in the form of an unfinished panel, or incorporated into a finished good.").

apply to composite wood products in the form of an unfinished core or incorporated into a finished good. That statutory provision states that "The formaldehyde emissions standard [ ] shall apply regardless of whether an applicable hardwood plywood, medium-density fiberboard, or particleboard is— (A) in the form of an unfinished panel; or (B) *incorporated into a finished good.*" (emphasis added) Under EPA's reading, Congress intended for formaldehyde emissions standards to apply to the unfinished core of wood products. EPA then concludes that all cores, including those incorporated into finished products, must meet the emissions standards at the point of origin. By extension, according to EPA, a stain or finish that reduces the formaldehyde emissions from an unfinished core cannot cure the failure of an unfinished core to comply with the emissions standard.

This conclusion is not required by TSCA. An equally valid interpretation of the statute is that the emissions standards apply to manufacture or importation of cores or finished products that, when used in a household, would exceed the emissions standards. If the finished product complies with the emissions standard, then both the core and finished product (in that use) would be compliant. If EPA's interpretation was correct (that only cores are covered), then there would be no need for the statute to refer to finished products. Only cores would need to meet the formaldehyde emissions standards. But the statute clearly requires cores *or* finished products must comply. In context, this means that the emissions from a finished product, if they were to meet the emissions standard, would comply with TSCA. Therefore, EPA's interpretation of TSCA is unreasonable because it is contrary to the plain text of the statute.

TSCA simply requires that all wood products are ultimately tested and comply with the emissions standard. Consequently, EPA has discretion to provide fabricators the option of demonstrating compliance with emissions standards with finished products rather than with cores. Because the finish of wood products may reduce the emissions of the core, it is logical to permit fabricators to test finished products to demonstrate compliance, and not to require that all cores, regardless of uses in finished products, must comply with the emissions standards.

B. EPA's decision to ignore the barrier effect of the finishing on wood products is unjustified and contrary to existing data.

EPA's decision to regulate cores instead of finished products is also inconsistent with the facts. As the Federal Wood Industries noted in a statement, "[m]ost finished goods have laminates, coatings or finishes that further reduce the emissions of residual formaldehyde in common use. The regulations do not consider these effects—they only regulate the unfinished panel substrates."[5] In comments on the

[5] Federal Wood Industries, Comments on the Formaldehyde Standards for Composite Wood Products, Docket No. EPA-HQ-OPPT-2012-0018-0623.

proposed rule, Ikea stated that the Rule's emissions limits "should apply solely to the products as sold to end user to avoid placing unreasonable burden on unfinished parts."[6] Northern Woodworks, Inc. also stated in comments that test results published in the 2003 Composite Panel Association technical bulletin indicate that laminates and coatings reduce emissions from unfinished wood products by 50 to 95%.[7] Another commenter raised the same issue: "Credit must [] be given to the value added process of finishing which acts as a barrier effectively preventing the off-gassing of any residual formaldehyde."[8] EPA has not provided an adequate explanation for why the Agency has not accounted for the barrier effect in finished wood products when formulating the Formaldehyde Rule.

In EPA's response to comments document, EPA concludes that wood products should only be tested in unfinished form despite the data showing that the finishing of many wood products reduces the emissions of the core. EPA admits that evidence in the record shows that, in most cases, finishing a wood product can result in reduced formaldehyde emissions from the finished product.[9] In addition, EPA acknowledges that the Agency reviewed the 2003 Composite Panel Association technical bulletin that documented that laminates and coatings reduce emissions by approximately 50% to 95% compared with unlaminated or uncoated products.[10] EPA also references a California Air Resource Board ("CARB") study that found that applying stain or finish to unfinished wood products reduced emissions from a core in 14 out of 16 samples.[11] Nevertheless EPA asserts that the Agency should never allow testing of wood composite products in their finished state.[12]

EPA justifies this universal prohibition on testing products in their final state on the grounds that the Agency lacks information on the long-term control of emissions by finishes or laminates. In particular, EPA is concerned that if the finish on a wood product becomes scratched or damaged or breaks down over time, the barrier to emissions could become less effective, and formaldehyde emissions could increase. While this concern may be theoretically legitimate, it is clear that the durability of finished products varies widely among types of finishes and the use of the product. Nobilia's products, for example, are used in kitchen cabinets, which do not generally experience destructive wear and tear. In

---

[6] Ikea, Comments on the Formaldehyde Standards for Composite Wood Products, Docket No. EPA-HQ-OPPT-2012-0018-0628.

[7] Northern Woodworks, Inc., Comments on the Formaldehyde Standards for Composite Wood Products, Docket No. EPA-HQ-OPPT-2012-0018-0542. *See also* Custom Wholesale Floors, Comments on the Formaldehyde Standards for Composite Wood Products, Docket No. EPA-HQ-OPPT-2012-0018-0541.

[8] Gregory Adams Comments on the Formaldehyde Standards for Composite Wood Products, Docket No. EPA-HQ-OPPT-2012-0018-0630.

[9] EPA, Formaldehyde Emission Standards for Composite Wood Products: Response to Public Comments, at 1713 – 1753 (May 2016).

[10] EPA, Formaldehyde Emission Standards for Composite Wood Products: Response to Public Comments, at 1637 – 1661 (May 2016).

[11] California Air Resources Board, Laminated Products Testing – Preliminary Results/Conclusion (2013)

[12] *Id.*

addition, Nobilia's finishes include highly-durable plastic or synthetic laminated materials, which could be expected to control formaldehyde emissions for decades.

EPA concludes that the lack of data justifies excessive regulation, but the real concern is why excessive regulation is justified without data indicating that the stated concern is realistic. EPA states that "[i]f the finish [on a wood product] becomes scratched or damaged or breaks down over time, EPA is concerned that its barrier effects could become ineffective, and formaldehyde emissions could increase."[13] The basic problem is that EPA does not provide any data supporting the Agency's theory that formaldehyde emissions from finished wood products will increase as the product is weathered over time. EPA's decision to regulate formaldehyde emissions from unfinished cores is therefore not supported by adequate data.

EPA's decision to universally require that all wood products be tested in unfinished form is arbitrary and capricious because (a) there is clear evidence in the record that some finished wood products do not emit formaldehyde emissions in excess of the Formaldehyde Rule's emissions standards, and (b) there is no evidence that controlling emissions from finished products would not effectively protect indoor air quality. The intent of EPA's rule is to protect end-use consumers from formaldehyde emissions from wood products in excess of the emissions standards set by Congress and incorporated in the Rule. In the case of some wood products, like Nobilia's, the finishing or lamination of the products would reduce emissions from the core sufficient to meet the emissions standards of the Rule. EPA does not dispute this fact. Instead, EPA argues that testing wood products in finished form should not be permitted because the finish on wood products may deteriorate—a claim that EPA has not substantiated with credible data and that is not applicable to many types of laminates or other containment.

Instead of imposing a blanket ban on fabricators demonstrating compliance with the Rule's emissions standards with finished wood products, EPA should have allowed a testing variance for finished products that comply with the Rule's emissions standards. Entities seeking to rely on this testing variance could test and certify that their products are compliant with the Rule's emissions standards in finished form. Such a testing variance would accommodate a range of manufacturing scenarios and provide cost savings that would be passed on to end-use customers—while complying with Rule's emissions standards.

C. A testing variance will not reduce the efficiency of EPA's program.

One argument that EPA has used to support testing wood products in unfinished form is that upstream regulation of the wood product sector is more efficient than downstream regulation because

---

[13] EPA, Formaldehyde Emission Standards for Composite Wood Products: Response to Public Comments, at 1637 – 1725-1727 (May 2016).

there are fewer manufacturers of composite wood products than there are producers of finished wood product. According to EPA's analysis, in the United States, there are approximately 54 manufacturers of cores, 66,000 to 73,000 fabricators of wood products, and 759,000 retailers of wood products.[14] EPA's argument was that requiring manufacturers of wood cores to conduct testing is more efficient than requiring all manufacturers of finished wood products to conduct testing. The flaw in EPA's reasoning is that testing need not be *required* for all participants in the market; it could be an *option* for manufacturers of finished products who desire to undertake the cost and risk of testing to demonstrate compliance.

A variance allowing wood fabricators to voluntarily comply with the Formaldehyde Rule's emissions standards for finished products would not require all producers of finished products to demonstrate compliance. It would simply allow fabricators to elect to test their products in finished form to demonstrate compliance with the emissions standards, rather than be limited to using cores that have been certified as complying with the Rule's emissions standards. That solution would not compromise the program's efficiency; the upstream regulation of the Rule would remain intact. As a practical matter, only a limited number of fabricators would voluntarily adopt the Rule's testing and certification requirements due to the costs and time associated with the requirements. Some fabricators may actually increase the efficiency of the Rule if they obtain cores from multiple manufacturers. Instead of multiple manufacturers testing and certifying their unfinished products that will later be incorporated into the fabricator's finished product, the fabricator could certify the finished product made from cores sourced from various suppliers. Therefore, a testing variance would complement rather than detract from the efficiency of the Formaldehyde Rule.

There is also precedent for EPA incorporating testing variances into its rules. The court held that variances are "substantive elements of regulation," not "regulatory gaps." *In re Surface Min. Regulation Litigation*, 627 F. 2d 1346, 1369 (D.C. Cir. 1980). For example, EPA has permitted alternative testing methods for testing drinking water. *See* 79 Fed. Reg. 35,081 (June 19, 2014). Testing variances are appropriate to incorporate into the Formaldehyde Rule because there is no evidence in the legislative record indicating that Congress intended to prohibit variances. *See El du Pont de Nemours & Co. v. Train,* 430 U.S 112, 138 (1977) (holding that variances in regulations are appropriate unless Congress prohibited variances).

IV. Nobilia should have the option of demonstrating compliance with the Rule's emissions standards based on the emissions from the finished product.

---

[14] Economic Analysis of the Formaldehyde Standards for Composite Wood Products Act Implementing Regulations Proposed Rule, at ES-3 (May 2013), EPA Docket No. EPA-HQ-OPPT-2012-0018-0484.

Based on existing test results, Nobilia believes that its finished products will comply with the Rule's emissions limitations. Two sample reports are attached that document results at levels indicating that compliance under the Rule is achievable.[15] Attachment A is a confidential report presenting test results for coated particleboard used by Nobilia in manufacturing its kitchen cabinet products (Test Report 368 Egger E1 (coated) QA-2017--368). This testing was conducted pursuant to ASTM D 6007 on February 6, 2017, with respect to samples produced on January 23, 2017. We know from other samples tested at the same time that underlying particleboard did not comply with the Rule's emissions standards. The results of this testing of the finished product made from non-compliant particleboard demonstrated formaldehyde emissions of 0.01 parts per million ("ppm") and 0.02 ppm, which is significantly below the Rule's particleboard standard of 0.09 ppm.

The second emissions test is a confidential report attached as Attachment B (Fitted Kitchen Cabinet #21250099 002). This test was conducted on finished panels used to manufacture cabinets, and commenced on February 26, 2016. The emissions test used the method outlined in the European Standard DIN EN 717-1:2005. The test result are emissions rates at three days of 0.015 ppm and, at 27 days, of 0.015 ppm. Both the three day and 27 day emissions rates are equivalent to approximately 16% of the particleboard emissions standard of 0.09 ppm established by the Rule.[16]

Nobilia should have the option of complying with the Rule's emissions standards based on the emissions from the finished product, not the uncoated core. Testing demonstrates that formaldehyde emissions from Nobilia's finished products are below the Rule's emissions standards. Nobilia should not be required to demonstrate that the uncoated cores of its products are compliant if the finished product is compliant. Nobilia is willing to test and certify its finished products in accordance with EPA-approved ASTM test methods, instead of European testing methods, to demonstrate that Nobilia's finished products comply with the emissions standards of the Formaldehyde Rule.

V. Conclusion.

---

[15] These sample results (from 2014 and 2017) were not available during the comment period on the proposed rule.

[16] The DIN EN 717-1:2005 standard is not an approved test methodology under the Rule. Nobilia understands that additional compliance testing, using ASTM approved methodologies would be required to document compliance, if such testing were permitted. The point of providing this data is that existing data indicate that formaldehyde emissions from finished products are likely to fall well below the established standards, based on testing of such finished products using methods that are similar to EPA's approved testing methodologies.

Nobilia believes that the Rule is unreasonable, arbitrary and capricious as promulgated and, therefore, requests that EPA repeal or amend the Formaldehyde Rule. There is no statutory deadline that requires EPA to respond to Nobilia's petition by a certain date. However, implementing the Formaldehyde Rule in its current state will require Nobilia to invest significant time and resources in modifying its manufacturing and importation processes. Nobilia therefore requests that EPA respond to its petition promptly so that Nobilia has adequate time to develop a compliance strategy and is not prejudiced in meeting the December 12, 2017, compliance deadline established by the Rule. *See GTE Service Corp., v. FCC*, 782 F.2d 263 (D.C. Cir. 1986) ("An agency abuses [its] discretion when its manner of proceeding significantly prejudices a party or unreasonably delays a resolution."). In the interim, Nobilia requests that EPA stay the implementation of the Rule as it applies to Nobilia.

Respectfully Submitted,

Robert F. Lawrence
On behalf of Nobilia

CC: Christoph Mehringer, Nobilia
Erik Winchester, U.S. Environmental Protection Agency

Enclosures: Attachment A: Test Results for Coated Panel
Attachment B: Test Results for Fitted Kitchen Cabinet

orrick

March 23, 2017

By FedEx and Email

Robert F. Lawrence

E rlawrence@orrick.com
D +1 202 339 8430
F +1 202 339 8500

Scott Pruitt, Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460
Pruitt.Scott@epa.gov

Re: Petition to Amend or Repeal the Formaldehyde Emission Standards for Composite Wood Products

Dear Administrator Pruitt:

On December 12, 2016, the U.S. Environmental Protection Agency ("EPA" or "Agency") published the Formaldehyde Emission Standards for Composite Wood Products. 81 Fed. Reg. 89,674 (Dec. 12, 2016) ("Formaldehyde Rule" or "Rule").[1] On behalf of nobilia-Werke J. Stickling GmbH & Co. KG ("Nobilia") the undersigned respectfully requests that EPA (a) amend or, alternatively, repeal the Formaldehyde Rule, and (b) administratively stay the Formaldehyde Rule as it applies to Nobilia until EPA has resolved this petition.

As the Rule is presently written, finished wood products that comply with the Rule's emissions standards cannot be imported into or manufactured in the United States after December 2017 if they were manufactured abroad with non-compliant raw materials. Applying the emissions standard to the raw materials, instead of finished products, will unnecessarily impose costs on U.S. consumers and does not advance the purposes of the Rule. Given the short compliance timeline for the Rule, it is urgent that

[1] The Formaldehyde Rule was scheduled to go into effect on February 10, 2017. However, the effective date of the rule has been delayed until May 22, 2017. 82 Fed. Reg. 14,324, 14,325 (Mar. 20, 2017). However, the compliance deadlines remain the same (December 12, 2017 for the restrictions of greatest concern to Nobilia).

EPA take action on this petition in timely manner and avoid the adverse impacts of implementing the Rule in its current form.

I. Nobilia is an "interested person" entitled to petition the EPA to amend or to repeal the Formaldehyde Rule.

Pursuant to the Administrative Procedure Act ("APA") Section 553(e), Nobilia respectfully petitions EPA to repeal or amend the Formaldehyde Rule to allow finished products that meet the Rule's emissions standards to be imported into or manufactured in the United States. Nobilia is an "interested person" entitled to petition EPA to amend or repeal the Formaldehyde Rule under the APA because Nobilia is a "fabricator" subject to the requirements of the Formaldehyde Rule.

Nobilia is a German manufacturer of kitchen cabinets. Though Nobilia manufactures exclusively at its headquarters in Germany, its finished products are exported from Germany to customers in approximately 80 countries, including the United States. Nobilia's kitchen cabinets incorporate particleboard and some medium density fiberboard ("MDF") that will be subject to the Rule when it is fully effective.

Under the Formaldehyde Rule, Nobilia is required to use cores that are compliant with the Formaldehyde Rule's emissions standards and satisfy certification requirements for products it intends to import into the United States. Nobilia must keep records documenting that its products are compliant with the Rule and ensure its products are labeled with a statement indicating its products are compliant with Toxic Substances Control Act ("TSCA"). Nobilia also is required to provide import certification under Section 13 of the TSCA. Therefore, Nobilia is directly affected by the Formaldehyde Rule and its requirements.

II. Nobilia requests that EPA repeal or amend the Formaldehyde Rule to permit importation or sale of finished products that meet the emissions standards.

In this petition, Nobilia requests that EPA repeal the Formaldehyde Rule in its entirety. Alternatively, Nobilia requests that EPA amend the Formaldehyde Rule to allow importation and sale of products that comply with the Rule's emissions requirements in finished form, regardless of whether they are manufactured with a compliant core. Specifically, Nobilia requests that EPA amend the Formaldehyde Rule to create a variance allowing fabricators of finished products to demonstrate compliance based on emissions from the finished product rather than emissions from the raw core used to manufacture the wood product. Like many manufacturers, Nobilia's products encapsulate the core, and effectively prevent

or reduce formaldehyde emissions to compliant levels. Requiring the core to comply with the Rule's emissions standards in addition to requiring the finished product to comply, does not advance the purposes of the Rule or protect public health. Moreover, the strict mandate to use compliant cores imposes unnecessary costs on the wood product industry and erects market barriers, without furthering the Rule's goal of limiting consumers' exposure to formaldehyde emissions. Because the Rule unnecessarily reorganizes what is a large international marketplace, Nobilia requests that EPA reconsider the rule, and amend it or repeal it, to address the apparent overreach and overbroadness in regulatory restrictions.

III. EPA's mandate that wood products must meet emissions standards in unfinished form is unsupported by data and arbitrary and capricious.

As promulgated by EPA, the Rule requires that *all* composite wood products[2] comply with the emissions standards established by EPA. The Rule requires that manufacturers test the cores of wood products to certify compliance with the emissions standards. Nobilia does not agree with EPA that TSCA requires testing of all composite wood cores; the statute permits testing finished wood products. EPA's decision to limit testing of wood products to cores, effectively banning testing of finished products, is unreasonable because studies have shown that finishes on wood products can reduce emissions.[3] Moreover, the emissions from finished products more accurately represent emissions that affect end-use consumers—the underlying concern of the Rule. Finally, allowing voluntary testing of finished products does not undermine the efficiency of EPA's testing program.

A. EPA's interpretation that TSCA requires that wood products comply with formaldehyde emissions standards only in unfinished form is unreasonable.

EPA argues that the text of TSCA requires EPA to regulate wood products exclusively in unfinished form. According to EPA, TSCA section 601(b) (4)[4] clearly states that formaldehyde emissions standards

---

[2] "Composite wood products" means hardwood plywood made with a veneer or composite core, medium-density fiberboard, and particleboard. 40 C.F.R. § 770.3.

[3] *See* Composite Panel Association, Technical Bulletin: The Role of Laminates and Coatings as VOC Emission Barriers in Composite Wood Panels (2003); California Air Resources Board, Laminated Products Testing – Preliminary Results/Conclusion (2013); American Home Furnishing Association ("AHFA"), Composite Panel Deconstruction Experiment (2009); AHFA, UL Study: Decay Emissions Test for Furniture (2013).

[4] *See also* 111th Congress, 2d Session, 111-169, Committee on Environment and Public Works, Formaldehyde Standards for Composite Wood Products, April 19, 2010 ("The formaldehyde emissions standard shall apply regardless of whether an applicable hardwood plywood, medium-density fiberboard, or particleboard is in the form of an unfinished panel, or incorporated into a finished good.").

apply to composite wood products in the form of an unfinished core or incorporated into a finished good. That statutory provision states that "The formaldehyde emissions standard [ ] shall apply regardless of whether an applicable hardwood plywood, medium-density fiberboard, or particleboard is— (A) in the form of an unfinished panel; or (B) *incorporated into a finished good.*" (emphasis added) Under EPA's reading, Congress intended for formaldehyde emissions standards to apply to the unfinished core of wood products. EPA then concludes that all cores, including those incorporated into finished products, must meet the emissions standards at the point of origin. By extension, according to EPA, a stain or finish that reduces the formaldehyde emissions from an unfinished core cannot cure the failure of an unfinished core to comply with the emissions standard.

This conclusion is not required by TSCA. An equally valid interpretation of the statute is that the emissions standards apply to manufacture or importation of cores or finished products that, when used in a household, would exceed the emissions standards. If the finished product complies with the emissions standard, then both the core and finished product (in that use) would be compliant. If EPA's interpretation was correct (that only cores are covered), then there would be no need for the statute to refer to finished products. Only cores would need to meet the formaldehyde emissions standards. But the statute clearly requires cores *or* finished products must comply. In context, this means that the emissions from a finished product, if they were to meet the emissions standard, would comply with TSCA. Therefore, EPA's interpretation of TSCA is unreasonable because it is contrary to the plain text of the statute.

TSCA simply requires that all wood products are ultimately tested and comply with the emissions standard. Consequently, EPA has discretion to provide fabricators the option of demonstrating compliance with emissions standards with finished products rather than with cores. Because the finish of wood products may reduce the emissions of the core, it is logical to permit fabricators to test finished products to demonstrate compliance, and not to require that all cores, regardless of uses in finished products, must comply with the emissions standards.

B. EPA's decision to ignore the barrier effect of the finishing on wood products is unjustified and contrary to existing data.

EPA's decision to regulate cores instead of finished products is also inconsistent with the facts. As the Federal Wood Industries noted in a statement, "[m]ost finished goods have laminates, coatings or finishes that further reduce the emissions of residual formaldehyde in common use. The regulations do not consider these effects—they only regulate the unfinished panel substrates."[5] In comments on the

[5] Federal Wood Industries, Comments on the Formaldehyde Standards for Composite Wood Products, Docket No. EPA-HQ-OPPT-2012-0018-0623.

proposed rule, Ikea stated that the Rule's emissions limits "should apply solely to the products as sold to end user to avoid placing unreasonable burden on unfinished parts."[6] Northern Woodworks, Inc. also stated in comments that test results published in the 2003 Composite Panel Association technical bulletin indicate that laminates and coatings reduce emissions from unfinished wood products by 50 to 95%.[7] Another commenter raised the same issue: "Credit must [] be given to the value added process of finishing which acts as a barrier effectively preventing the off-gassing of any residual formaldehyde."[8] EPA has not provided an adequate explanation for why the Agency has not accounted for the barrier effect in finished wood products when formulating the Formaldehyde Rule.

In EPA's response to comments document, EPA concludes that wood products should only be tested in unfinished form despite the data showing that the finishing of many wood products reduces the emissions of the core. EPA admits that evidence in the record shows that, in most cases, finishing a wood product can result in reduced formaldehyde emissions from the finished product.[9] In addition, EPA acknowledges that the Agency reviewed the 2003 Composite Panel Association technical bulletin that documented that laminates and coatings reduce emissions by approximately 50% to 95% compared with unlaminated or uncoated products.[10] EPA also references a California Air Resource Board ("CARB") study that found that applying stain or finish to unfinished wood products reduced emissions from a core in 14 out of 16 samples.[11] Nevertheless EPA asserts that the Agency should never allow testing of wood composite products in their finished state.[12]

EPA justifies this universal prohibition on testing products in their final state on the grounds that the Agency lacks information on the long-term control of emissions by finishes or laminates. In particular, EPA is concerned that if the finish on a wood product becomes scratched or damaged or breaks down over time, the barrier to emissions could become less effective, and formaldehyde emissions could increase. While this concern may be theoretically legitimate, it is clear that the durability of finished products varies widely among types of finishes and the use of the product. Nobilia's products, for example, are used in kitchen cabinets, which do not generally experience destructive wear and tear. In

---

[6] Ikea, Comments on the Formaldehyde Standards for Composite Wood Products, Docket No. EPA-HQ-OPPT-2012-0018-0628.

[7] Northern Woodworks, Inc., Comments on the Formaldehyde Standards for Composite Wood Products, Docket No. EPA-HQ-OPPT-2012-0018-0542. *See also* Custom Wholesale Floors, Comments on the Formaldehyde Standards for Composite Wood Products, Docket No. EPA-HQ-OPPT-2012-0018-0541.

[8] Gregory Adams Comments on the Formaldehyde Standards for Composite Wood Products, Docket No. EPA-HQ-OPPT-2012-0018-0630.

[9] EPA, Formaldehyde Emission Standards for Composite Wood Products: Response to Public Comments, at 1713 – 1753 (May 2016).

[10] EPA, Formaldehyde Emission Standards for Composite Wood Products: Response to Public Comments, at 1637 – 1661 (May 2016).

[11] California Air Resources Board, Laminated Products Testing – Preliminary Results/Conclusion (2013)

[12] *Id.*

addition, Nobilia's finishes include highly-durable plastic or synthetic laminated materials, which could be expected to control formaldehyde emissions for decades.

EPA concludes that the lack of data justifies excessive regulation, but the real concern is why excessive regulation is justified without data indicating that the stated concern is realistic. EPA states that "[i]f the finish [on a wood product] becomes scratched or damaged or breaks down over time, EPA is concerned that its barrier effects could become ineffective, and formaldehyde emissions could increase."[13] The basic problem is that EPA does not provide any data supporting the Agency's theory that formaldehyde emissions from finished wood products will increase as the product is weathered over time. EPA's decision to regulate formaldehyde emissions from unfinished cores is therefore not supported by adequate data.

EPA's decision to universally require that all wood products be tested in unfinished form is arbitrary and capricious because (a) there is clear evidence in the record that some finished wood products do not emit formaldehyde emissions in excess of the Formaldehyde Rule's emissions standards, and (b) there is no evidence that controlling emissions from finished products would not effectively protect indoor air quality. The intent of EPA's rule is to protect end-use consumers from formaldehyde emissions from wood products in excess of the emissions standards set by Congress and incorporated in the Rule. In the case of some wood products, like Nobilia's, the finishing or lamination of the products would reduce emissions from the core sufficient to meet the emissions standards of the Rule. EPA does not dispute this fact. Instead, EPA argues that testing wood products in finished form should not be permitted because the finish on wood products may deteriorate—a claim that EPA has not substantiated with credible data and that is not applicable to many types of laminates or other containment.

Instead of imposing a blanket ban on fabricators demonstrating compliance with the Rule's emissions standards with finished wood products, EPA should have allowed a testing variance for finished products that comply with the Rule's emissions standards. Entities seeking to rely on this testing variance could test and certify that their products are compliant with the Rule's emissions standards in finished form. Such a testing variance would accommodate a range of manufacturing scenarios and provide cost savings that would be passed on to end-use customers—while complying with Rule's emissions standards.

C. A testing variance will not reduce the efficiency of EPA's program.

One argument that EPA has used to support testing wood products in unfinished form is that upstream regulation of the wood product sector is more efficient than downstream regulation because

---

[13] EPA, Formaldehyde Emission Standards for Composite Wood Products: Response to Public Comments, at 1637 – 1725-1727 (May 2016).

there are fewer manufacturers of composite wood products than there are producers of finished wood product. According to EPA's analysis, in the United States, there are approximately 54 manufacturers of cores, 66,000 to 73,000 fabricators of wood products, and 759,000 retailers of wood products.[14] EPA's argument was that requiring manufacturers of wood cores to conduct testing is more efficient than requiring all manufacturers of finished wood products to conduct testing. The flaw in EPA's reasoning is that testing need not be *required* for all participants in the market; it could be an *option* for manufacturers of finished products who desire to undertake the cost and risk of testing to demonstrate compliance.

A variance allowing wood fabricators to voluntarily comply with the Formaldehyde Rule's emissions standards for finished products would not require all producers of finished products to demonstrate compliance. It would simply allow fabricators to elect to test their products in finished form to demonstrate compliance with the emissions standards, rather than be limited to using cores that have been certified as complying with the Rule's emissions standards. That solution would not compromise the program's efficiency; the upstream regulation of the Rule would remain intact. As a practical matter, only a limited number of fabricators would voluntarily adopt the Rule's testing and certification requirements due to the costs and time associated with the requirements. Some fabricators may actually increase the efficiency of the Rule if they obtain cores from multiple manufacturers. Instead of multiple manufacturers testing and certifying their unfinished products that will later be incorporated into the fabricator's finished product, the fabricator could certify the finished product made from cores sourced from various suppliers. Therefore, a testing variance would complement rather than detract from the efficiency of the Formaldehyde Rule.

There is also precedent for EPA incorporating testing variances into its rules. The court held that variances are "substantive elements of regulation," not "regulatory gaps." *In re Surface Min. Regulation Litigation*, 627 F. 2d 1346, 1369 (D.C. Cir. 1980). For example, EPA has permitted alternative testing methods for testing drinking water. *See* 79 Fed. Reg. 35,081 (June 19, 2014). Testing variances are appropriate to incorporate into the Formaldehyde Rule because there is no evidence in the legislative record indicating that Congress intended to prohibit variances. *See El du Pont de Nemours & Co. v. Train,* 430 U.S 112, 138 (1977) (holding that variances in regulations are appropriate unless Congress prohibited variances).

IV. Nobilia should have the option of demonstrating compliance with the Rule's emissions standards based on the emissions from the finished product.

---

[14] Economic Analysis of the Formaldehyde Standards for Composite Wood Products Act Implementing Regulations Proposed Rule, at ES-3 (May 2013), EPA Docket No. EPA-HQ-OPPT-2012-0018-0484.

Based on existing test results, Nobilia believes that its finished products will comply with the Rule's emissions limitations. Two sample reports are attached that document results at levels indicating that compliance under the Rule is achievable.[15] Attachment A is a confidential report presenting test results for coated particleboard used by Nobilia in manufacturing its kitchen cabinet products (Test Report 368 Egger E1 (coated) QA-2017--368). This testing was conducted pursuant to ASTM D 6007 on February 6, 2017, with respect to samples produced on January 23, 2017. We know from other samples tested at the same time that underlying particleboard did not comply with the Rule's emissions standards. The results of this testing of the finished product made from non-compliant particleboard demonstrated formaldehyde emissions of 0.01 parts per million ("ppm") and 0.02 ppm, which is significantly below the Rule's particleboard standard of 0.09 ppm.

The second emissions test is a confidential report attached as Attachment B (Fitted Kitchen Cabinet #21250099 002). This test was conducted on finished panels used to manufacture cabinets, and commenced on February 26, 2016. The emissions test used the method outlined in the European Standard DIN EN 717-1:2005. The test result are emissions rates at three days of 0.015 ppm and, at 27 days, of 0.015 ppm. Both the three day and 27 day emissions rates are equivalent to approximately 16% of the particleboard emissions standard of 0.09 ppm established by the Rule.[16]

Nobilia should have the option of complying with the Rule's emissions standards based on the emissions from the finished product, not the uncoated core. Testing demonstrates that formaldehyde emissions from Nobilia's finished products are below the Rule's emissions standards. Nobilia should not be required to demonstrate that the uncoated cores of its products are compliant if the finished product is compliant. Nobilia is willing to test and certify its finished products in accordance with EPA-approved ASTM test methods, instead of European testing methods, to demonstrate that Nobilia's finished products comply with the emissions standards of the Formaldehyde Rule.

V. Conclusion.

---

[15] These sample results (from 2014 and 2017) were not available during the comment period on the proposed rule.

[16] The DIN EN 717-1:2005 standard is not an approved test methodology under the Rule. Nobilia understands that additional compliance testing, using ASTM approved methodologies would be required to document compliance, if such testing were permitted. The point of providing this data is that existing data indicate that formaldehyde emissions from finished products are likely to fall well below the established standards, based on testing of such finished products using methods that are similar to EPA's approved testing methodologies.

Nobilia believes that the Rule is unreasonable, arbitrary and capricious as promulgated and, therefore, requests that EPA repeal or amend the Formaldehyde Rule. There is no statutory deadline that requires EPA to respond to Nobilia's petition by a certain date. However, implementing the Formaldehyde Rule in its current state will require Nobilia to invest significant time and resources in modifying its manufacturing and importation processes. Nobilia therefore requests that EPA respond to its petition promptly so that Nobilia has adequate time to develop a compliance strategy and is not prejudiced in meeting the December 12, 2017, compliance deadline established by the Rule. *See GTE Service Corp., v. FCC*, 782 F.2d 263 (D.C. Cir. 1986) ("An agency abuses [its] discretion when its manner of proceeding significantly prejudices a party or unreasonably delays a resolution."). In the interim, Nobilia requests that EPA stay the implementation of the Rule as it applies to Nobilia.

Respectfully Submitted,

Robert F. Lawrence
On behalf of Nobilia

CC: Christoph Mehringer, Nobilia
Erik Winchester, U.S. Environmental Protection Agency

Enclosures: Attachment A: Test Results for Coated Panel
Attachment B: Test Results for Fitted Kitchen Cabinet

Attachment A

Fraunhofer WKI | Bienroder Weg 54 E | 38108 Braunschweig | Germany

Fraunhofer Institute for Wood Research
Wilhelm-Klauditz-Institut WKI

Director
Prof. Dr. Bohumil Kasal

Dipl.-Ing. Harald Schwab
Head of the Testing, Supervision and Certifying Body

Bienroder Weg 54 E
38108 Braunschweig

Bettina Meyer
Project manager formaldehyde analytics
Quality Assessment QA
Phone + 49 531 2155-375 | Fax + 49 531 2155-907
bettina.meyer@wki.fraunhofer.de
www.wki.fraunhofer.de

EGGER Holzwerkstoffe
Brilon GmbH & Co. KG
Im Kissen 19
59929 Brilon
Germany

Your reference	Your message dated	Our reference
		Mey

Braunschweig, 9 February 2017

Test report No. QA-2017-0368

Client: EGGER Holzwerkstoffe Brilon GmbH & Co. KG
Im Kissen 19
59929 Brilon
Germany

Receipt of samples: 26 January 2017

WKI-ID-No.: 0046_2017

Objective of the test: Determination of formaldehyde release

Content of the test report:

1. Task Page 2
2. Test material and data of receipt Page 2
3. Execution of the tests Page 2
4. Test results Page 3

The test report comprises 3 pages and 4 tables.

This test report is not permitted to be published incompletely.

A publication in extracts is in any case subject to the previous consent of Fraunhofer-Institut für Holzforschung, Wilhelm-Klauditz-Institut (WKI), Bienroder Weg 54E in Braunschweig (Germany).
The test results exclusively refer to the objects of the test. The test material was used up.

ilac-MRA

DAkkS
Deutsche Akkreditierungsstelle
D-PL-11140-14-00

CETPC
CARB notified TNOT
MENTIONED 4

Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e. V., München
Executive Board
Prof. Dr.-Ing. habil. Prof. E. h. Dr.-Ing. E. h. mult. Dr. h. c. mult. Reimund Neugebauer, President
Prof. (Univ. Stellenbosch) Dr. rer. pol. Alfred Gossner
Prof. Dr. rer. publ. ass. iur. Alexander Kurz
Prof. Dr. rer. nat. Georg Rosenfeld

Cheques and transfers payable to:
Deutsche Bank, München
Account 752193300 BLZ 700 700 10
IBAN DE86 7007 0010 0752 1933 00
BIC (SWIFT-Code) DEUTDEMM
V.A.T. Ident No. DE129515865
Tax Number 143/215/20392

Fraunhofer
WKI

1. Task

The Fraunhofer-Institut für Holzforschung, Wilhelm-Klauditz-Institut (WKI), was assigned by Messrs. EGGER Holzwerkstoffe Brilon GmbH & Co. KG in 59929 Brilon (Germany) to determine by measurements the formaldehyde emission potential of a wood-based panel (see table 1 enclosed).

2. Test material and data of receipt

The sample material was selected, marked by the customer and sent to the WKI for examination.
The samples arrived at WKI packed in polyethylene plastic foil on 26 January 2017, were marked with WKI-ID-No. "0046_2017" and stored under room conditions.

3. Execution of the tests

Determination of formaldehyde release according to ASTM D 6007

Referring to chamber test according to ASTM D 6007 three samples with a total surface area of 0.43 m^2 (for particleboard or plywood) or 0.26 m^2 (for MDF) capable of emission were positioned vertically standing with a minimum distance of 0.15 m between each specimen in a closed chamber with a volume of 1 m^3. The conditioning of the samples was done for seven days ± 3 h at a temperature of (24 ± 3) °C and a relative humidity of (50 ± 5) %. The air exchange rate was adjusted to 2 AC/h.

Subsequent to seven-day-conditioning period the 1 m^3 chamber was operated at 25 ± 1 °C, a relative humidity of (50 ± 4) % and an air exchange rate of (0.5 ± 0.05) AC/h.

The formaldehyde concentration in the chamber was measured by taking air samples at a test period of 19 and 20 hours. To this end a gas quantity of at least 0.12 m^3 at a rate of approximately 2 L/min was taken from the ambient air using gas sampling equipment and led through gas washing bottles filled with absorption liquid. The absorbed formaldehyde was determined photometrically and/or fluorimetrically according to the acetyl/acetone method described in EN 717-1:2005-01.

Fraunhofer
WKI

4. Test results

In the tables enclosed to the test report the sample identification data (table 1), test and conditioning parameter (table 2) and determined formaldehyde values (table 3) of the tested sample ordered by Messrs. EGGER Holzwerkstoffe Brilon GmbH & Co. KG in 59929 Brilon (Germany) are specified.

The limit values according to the requirements of the Final Regulation Order of "Airborne Toxic Control Measure to Reduce Formaldehyde Emission from Composite Wood Products", 93120-93120.12, title 17, California Code of Regulations, § 93120.2 (a) "Formaldehyde Emission Standards for Hardwood Plywood (HWPW), Particleboard (PB), and Medium Density Fiberboard (MDF)" are listed in Table 4.

We draw the attention to the fact that the effected test was made as a material parameter and not as a classifying test.

Bettina Meyer
Official in charge

Dipl.-Ing. Harald Schwab
Head of Testing, Supervision and Certifying Body

Fraunhofer
WKI

Table 1: Sample identification according to customer

WKI-ID-No.: 0046_2017

Sample ID	EURODEKOR E1
Product code	not mentioned
Customer | Manufacturer	EGGER Holzwerkstoffe Brilon GmbH & Co. KG in 59929 Brilon (Germany)
Material type	particleboard, **coated**
Thickness (mm)	15
Production date	23 January 2017

Fraunhofer
WKI

Table 2: Test parameter of ASTM D 6007: "Determining Formaldehyde Concentration in Air from Wood Products Using a Small Scale Chamber"

Conditioning data					
Temperature of conditioning:	(24 ± 3)	[°C]	Rel. Humidity of conditioning:	(50 ± 5)	[%]
Minimum distance between samples:	0.15	[m]	Formaldehyde background concentration:	0.01	[ppm]

Chamber data			
Chamber volume	1		[m³]
Temperature:	(25 ± 1)		[°C]
Rel. humidity:	(50 ± 4)		[%]
Type of wood-based material:	particleboard or plywood	MDF	
Loading ratio*:	0.43	0.26	[m²/ m³]
Air exchange rate:	0.5	0.5	[h⁻¹]
Sample size (length x width)*:	0.5 x 0.143	0.5 x 0.085	[m]
Number of panels per chamber:	3	3	
Number of exposed surfaces:	6	6	
Edges**	sealed gastight with aluminium tape		

* depending on the type of wood-based material tested

** egdes sealed gastight with aluminium tape if the ratio of the edge exposure is greater than 5 % of the surface area

Enclosure to test report No. QA-2017-0368
dated 9 February 2017

Fraunhofer
WKI

Table 3: Test results of ASTM D 6007 "Determining Formaldehyde Concentration in Air from Wood Products Using a Small Scale Chamber"

Receipt of samples: 26 January 2017
Test date: 6 February 2017

WKI-Sample-ID		**0046_2017**
Customer-ID	EURODEKOR E1 – Production date: 23 January 2017	
Customer | Manufacturer	EGGER Holzwerkstoffe Brilon GmbH & Co. KG in 59929 Brilon (Germany)	
Thickness (mm)	15	
Material type	particleboard, **coated**	

Sample set 1				**0046_2017-1**
Test period	19	20	[h]	Average sample set 1
Temperature test conditions	25.0	25.3	[°C]	
Rel. Humidity test conditions	51.3	50.9	[%]	
Determined Chamber value	0.02	0.02	[ppm]	
Reported Chamber value corrected to 25°C/50%RH	0.02	0.02	[ppm]	**0.02 ppm**

Sample set 2				**0046_2017-2**
Test period	19	20	[h]	Average sample set 2
Temperature test conditions	24.9	25.2	[°C]	
Rel. Humidity test conditions	50.7	50.4	[%]	
Determined Chamber value	0.02	0.02	[ppm]	
Reported Chamber value corrected to 25°C/50%RH	0.02	0.02	[ppm]	**0.02 ppm**

Sample set 3				**0046_2017-3**
Test period	19	20	[h]	Average sample set 3
Temperature test conditions	25.1	25.3	[°C]	
Rel. Humidity test conditions	49.8	48.6	[%]	
Determined Chamber value	0.01	0.01	[ppm]	
Reported Chamber value corrected to 25°C/50%RH	0.01	0.01	[ppm]	**0.01 ppm**

Sample set 1 WKI-ID-No.: 0046_2017-1	Sample set 2 WKI-ID-No.: 0046_2017-2	Sample set 3 WKI-ID-No.: 0046_2017-3	Average value WKI-ID-No.: **0046_2017**
0.02 ppm	0.02 ppm	0.01 ppm	**0.02 ppm**

Table 4: Requirements for uncoated wood-based panels in reference to the Final Regulation Order of "Airborne Toxic Control Measure to Reduce Formaldehyde Emission from Composite Wood Products", 93120-93120.12, title 17, California Code of Regulations, § 93120.2 (a), emission standards, according to table 1: "Phase 1 and Phase 2 formaldehyde emission standards for hardwood plywood (HWPW), particleboard (PB) and medium density fibreboard (MDF)[1]"

- Phase 1 (P1) and Phase 2 (P2) Emission Standards (ppm) –					
Effective Date	**HWPW-VC**	**HWPW-CC**	**PB**	**MDF**	**Thin MDF**
1 January 2009	P1: 0.08	-	P1: 0.18	P1: 0.21	P1: 0.21
1 July 2009	-	P1: 0.08	-	-	-
1 January 2010	P2: 0.05	-	-	-	-
1 January 2011	-	-	P2: 0.09	P2: 0.11	-
1 January 2012	-	-	-	-	P2: 0.13
1 July 2012	-	P2: 0.05	-	-	-

(1) Based on the primary test method ASTM E 1333 in parts per million (ppm)

HWPW-VC: veneer core; HWPW-CC: composite core

Attachment B

Products [Logo] **TÜV**[1] Rheinland®

Test Report No.:	**21250099 002**	**Order No.:**	3170531_A30	Page 1 of 8
Client Reference No.	-	**Order Date:**	11 February 2016 (Mr. Daniel Breitenbach)	
Client:	nobilia-Werke, J. Stickling GmbH & Co. KG, Waldstr. 53-57 33415 Verl			
Test item:	Fitted kitchen cabinet			
Identification / Type No.:	Article APN60 Product range 615 Laser, front 428 slate grey			
Order content:	Emission examination			
Test specification:	RAL-UZ 38 (Blue Angel eco-label f. furniture), RAL-GZ 430			
Date of receipt:	18 February 2016		[Photo]	
Test sample No.:	A000121138-001			
Testing period:	19 Februrary 2016 – 15 April 2016			
Place of testing:	Nuremberg			
Testing laboratory:	TÜV[1] Rheinland LGA Products GmbH			
Test result *:	Pass		In the test chamber	

tested by:			**reviewed by:**		
	[<signed>			***[<signed>***	
15/04/2016	by order of Konrad Hübschmann, expert		15/04/2016	by order of Verena Roth, expert	
Date	**Name/Position**	**Signature**	**Date**	**Name/Position**	**Signature**

Other:
The emission requirements "Indoor room air quality" according to the awarding basis for the environmental label RAL-UZ 38 and according to RAL-GZ 430 (DGM) are met.

Condition of the test item at delivery: Test sample complete and undamaged

*** Legend:**	1=very good	2=good	3=satisfactory	4=sufficient	5=poor
	P(ass)=passed a.m. test specification(s)		F(ail)=failed a.m. test specifications	N/A= not applicable	N/T=not tested

This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.

V04

TÜV Rheinland LGA Products GmbH • Tillystraße 2 • D - 90431 Nuremberg • Phone: +49 911 655 5225 • Fax: +49 911 655 5226
Mail: service@de.tuv.com • Web: www.tuv.com

Translator's note:
[1] Technical Supervisory Authority

Test Report No.: **21250099 002**

List of used test equipment

Test equipment	Equipment No. / ID-No.	Next calibration
Test chamber No. 200	06811	12/2016
Sampling pump SKC No. 13	06721	12/2016
Sampling pump GSA No. 10	06966	12/2016
Sampling pump GSA No. 4	06820	12/2016
Sampling pump Desaga No. 11	06814	01/2018
Sampling pump Desaga No. 14	09337	03/2018
Sampling pump Desaga No. 15	06338	01/2018
Gilibrator No. 5	06713	09/2016
Gilibrator No. 6	07676	09/2016
Thermal hygrometer Lufft -2	07888	08/2016
Spectral photometer (UV-VIS) Perkin-Elmer, Lambda 2	06911	02/2017
GC - Agilent 7980A MS - Agilent 5975C, thermal desorber - Turbo Matrix 650	06666 /06667	12/2016

Test Report No.:	21250099 002	Page 3 of 8

Product description

1	**Product details**	Fitted kitchen cabinet Item: APN60 Item text: Worktop with N-edge, T 600 mm Product range: 615 Laser Front: 428 slate grey Body: 194 slate grey APL-pattern: 347 Taxus
2	**Dimensions / Weight**	–
3	**Operating elements**	–
4	**Equipment / Accessories**	–
5	**Used materials**	Coated wood materials
6	**Other**	–

[Photo]	[Photo]
Goods receipt label	Test sample packed

Test Report No.: 21250099 002			Page 4 of 8
Clause	RAL-UZ 38 (Blue Angel eco-label f. furniture), RAL-GZ 430	Measuring results - Remarks	Evaluation
	Requirements - Tests		

1. Definition of task

TÜV Rheinland LGA Products GmbH was charged with conducting emission measurements on a fitted cabinet according to the requirements of RAL-UZ 38 (indoor room air quality, as of January 2013) and according to RAL-GZ 430 (as of January 2016).

2. Test sample

The test sample was delivered on 18 February 2016, packed in carton and PE-film.

3. Examination methods

The sample was examined for 27 days in a test chamber as of 19 February 2016, as described in DIN EN ISO 16000-9: Indoor air pollutions - Part 9:2008: Determination of the emission of volatile organic compounds from building products and furnishing - Emission test chamber method (ISO 16000-9:2006); German version EN ISO 16000-9:2006.

Test Report No.:	21250099 002		Page 5 of 8
Clause	RAL-UZ 38 (Blue Angel eco-label f. furniture), RAL-GZ 430	Measuring results - Remarks	Evaluation
	Requirements - Tests		

The examinations were conducted under the following climate conditions in the test chamber:

Temperature:	23 °C ± 1 °C
Humidity:	50 % RH ± 5 % RH
Area-specific air flow rate:	1 m^3/m^2h ± 0.1 m^3/m^2h
Test chamber volume:	1.0 m^3

Sampling for determination of the hazardous substance concentrations and emission rates of **volatile organic compounds (VOC)** took place after a conditioning phase, after 3 days and after 27 days.

Duration of sampling:	45 min ± 2 min each
Volume flow at air sampling:	70 ml/min ± 5 ml/min each
Volume of the air sample:	3 l ± 0.1 l

Evaluation took place by thermal desorption and subsequent GC/MS-quantification.

DNPH sampling was conducted additionally to determine the **aldehydes**.

Between 26 February 2016 and 24 March 2016, 120 l of test chamber air each at a volume flow of 2 l/min were routed through gas washer bottles with 25 ml water each and the **formaldehyde content** was subsequently determined photometrically according to the acetyl acetone procedure.

The **odour assessments** according to RAL-GZ 430 were conducted by a collective of test persons at the end of the test duration.

4. Examination Results

Test parameters	Requirements	Test result	Note
Formaldehyde emission after 3 days	No requirements	0.015 ppm	–
Formaldehyde emission after 27 days	≤ 0.05 ppm	0.015 ppm	met
Emissions of volatile organic compounds (VOC)[1]			
C-substances[2] after3 days:	≤ 10 µg/m^3 (total)	unverifiable [5]	met
C-substances[2] after 27 days:	≤ 1 µ/m^3 each	unverifiable [5]	met
Volatile organic compounds after 3 days			
Total of volatile organic compounds in the retention range C_6-C_{16} (TVOC)[3]	≤ 3.0 mg/m^3	0.078 mg/m^3 [6]	met
Volatile organic compounds after 27 days			
Total of volatile organic compounds in the retention range C_6-C_{16} (TVOC)[3]	≤ 0.4 mg/m^3	0.046 mg/m^3 [6]	met
Total of volatile organic compounds in the retention range > C_{16} - C_{22} (TSVOC)[4]	≤ 0.1 mg/m^3	< 0.001 mg/m^3	met
Total of all VOC without NIK	≤ 0.1 mg/m^3	< 0.001 mg/m^3	met
R-Value [7]	≤ 1	< 1	met

Indices to 1st emission examination

1 VOC = volatile organic compounds

2 C = carcinogen, carcinogenic of categories 1 or 2 acc. to table 3.2 or categories category 1A and 1B acc. to table 3.1 resp. of the annex VI of the regulation (EC) No. 1272/2008 (GHS)

3 TVOC: total volatile organic compounds

4 TSVOC: total semi volatile organic compounds

5 Unverifiable: no compound from the respective group was documented; determination limit 1 µg /m3

6 For individual values, see table: Test chamber concentrations of all detected individual components

7 R-values = total of all R_i -values ($R = \Sigma C_i / NIK_i$, lowest concentration of interest).

Test Report No.:	21250099 002		Page 7 of 8
Clause	RAL-UZ 38 (Blue Angel eco-label f. furniture), RAL-GZ 430	Measuring results - Remarks	Evaluation
	Requirements - Tests		

Test chamber concentrations of all detected individual components

Individual components	CAS-No.	Concentration [µg/m³] after 3 days	Concentration [µg/m³] after 27 days	NIK-values [µg/m³]
C-substances	--	< 1	< 1	–
CMR-substances (additional requirement acc. to RAL-GZ 430)	--	< 1	< 1	–
VOC G_6 – C_{16}				
Styrene	100-42-5	< 1	1	250
Alpha-pinene	80-56-8	21	7	2500
Beta-pinene	127-91-3	5	2	1400
3-carene	13466-78-9	3	2	1500
Limonene	138-86-3	1	< 1	5000
Iso-butanol	78-83-1	3	< 1	3100
n-pentanal	110-62-3	4	2	800
n-hexanal	66-25-1	18	16	900
n-nonanal	124-19-6	1	< 1	900
n-decanal	112-31-2	1	< 1	900
Cyclohexanone	108-94-1	3	2	410
n-butylacetate	123-86-4	3	< 1	4800
Acetic acid	64-19-7	11	12	1250
Benzaldehyde	100-52-7	4	2	90
C_6-C_{16} (TVOC)	--	78	46	--
TSVOC > C_{16}	--	< 1	< 1	--
VVOC < C_6: *	--			
Acetone	67-64-1	11	7	1200
Ethanal	75-07-0	not taken into account	6	1200
Propanal	123-38-6	not taken into account	2	--

* VVOC are not taken into account in the evaluation.

Test Report No.: 21250099 002			Page 8 of 8
Clause	RAL-UZ 38 (Blue Angel eco-label f. furniture), RAL-GZ 430	Measuring results - Remarks	Evaluation
	Requirements - Tests		

5. Assessment

The emission requirements "Indoor air quality" acc.to the awarding basis for the environmental label RAL-UZ 38 and acc. to RAL-GZ 430 are met by the fitted cabinet.

6. Supplementary Examinations

6.1 Odour level acc. to RAL-GZ 430 (DGM, 5-level scale): 2.3

Requirement: max. level 3 (average)

Evaluation levels:

Level 1 = no odour

Level 2 = weak odour

Level 3 = clear, non-annoying odour

Level 4 = annoying odour

Level 5 = intolerable odour

Parameter	Examination procedure
Test chamber examinations:	
DIN EN ISO 16000-9:2008: Indoor air pollutions - Part 9: Determination of the emission of volatile organic compounds from building products and furnishing - Emission - test chamber method (ISO 16000-9:2006); German version EN ISO 16000-9:2006; The test chamber examination took place under the following climate conditions: • area-specific air flow rate 1.0 m^3/m^2h • rel. humidity 50 % ± 5 % • temperature 23 °C ± 1 °C	
Emission of formaldehyde	Test chamber procedure: DIN EN 717-1:2005
Emissions of volatile organic compounds (VOC)1	Test chamber procedure: DIN ISO 16000-6:2012
Odour emission	RAL-GZ 430:2016 (corresponding to a 5-level scale)

Fri Mar 24 15:29:40 EDT 2017
Hope.Brian@epamail.epa.gov
FW: Thank you from ECOS
To: CMS.OEX@epamail.epa.gov

DRF

From: Alexandra Dapolito Dunn [mailto:adunn@ecos.org]
Sent: Friday, March 24, 2017 2:00 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Cc: Barbery, Andrea <Barbery.Andrea@epa.gov>; Bangerter, Layne <bangerter.layne@epa.gov>; Wagner, Kenneth <wagner.kenneth@epa.gov>; Bennett, Tate <Bennett.Tate@epa.gov>; Stine, John (MPCA) <john.stine@state.mn.us>; Rudolph, Martha <martha.rudolph@state.co.us>; Todd Parfitt <todd.parfitt@wyo.gov>; keogh@adeq.state.ar.us
Subject: Thank you from ECOS

Dear Administrator Pruitt,

On behalf of the Environmental Council of the States, please find attached a letter of our gratitude.

Regards,

Alexandra Dapolito Dunn, Esq.

Executive Director & General Counsel

Environmental Council of the States

50 F Street, NW, Suite 350

Washington, DC 20001

202-266-4929 (T); 202-230-4247 (C);202-266-4937 (F)

adunn@ecos.org; Twitter @ECOStates

See my research: http://ssrn.com/author=1356207

Save the Date! ECOS' Spring Meeting, April 6-8, 2017, Washington, DC, www.ecos.org

ECOS

THE
ENVIRONMENTAL
COUNCIL OF
THE STATES

50 F Street, N.W.
Suite 350
Washington, D.C. 20001

Tel: (202) 266-4920
Email: ecos@ecos.org
Web: www.ecos.org

John Linc Stine
Commissioner, Minnesota Pollution Control Agency
PRESIDENT

Todd Parfitt
Director, Wyoming Department of Environmental Quality
VICE PRESIDENT

Becky Keogh
Director, Arkansas Department of Environmental Quality
SECRETARY-TREASURER

Martha Rudolph
Director of Environmental Programs, Colorado Department of Public Health and Environment
PAST PRESIDENT

Alexandra Dapolito Dunn
Executive Director & General Counsel

March 24, 2017

The Honorable Scott Pruitt
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Via Electronic and Regular U.S. Mail

Dear Administrator Pruitt:

On behalf of the leadership and members of the Environmental Council of the States (ECOS), we extend our gratitude to you and your colleagues for taking the time to meet with us on March 14. We found the dialogue with you productive and engaging, and an excellent opportunity to discuss the very important cooperative federalism relationship between states and the U.S. Environmental Protection Agency (EPA). We are pleased that you saw value in the data visualization used in the Minnesota Pollution Control Agency's environmental and performance measures dashboard. ECOS is well into a similar project to identify common environmental metrics in air, land, and water, and accompanying display tools, that we will make available to states to use and will be accessible this fall via ECOS' website. We look forward to this meaningful step forward to communicate environmental results across the nation – and appreciate EPA's continued support of this project.

We also thank you for participating on the March 21 ECOS All Member call. State environmental commissioners from over 35 states participated and welcomed your remarks on the state-EPA relationship, water infrastructure investment, Superfund cleanups and brownfields, and advancing consistency across EPA regions.

While each state has its own unique issues and priorities, we hope these early interactions with ECOS show that the organization is a fair and impartial representative of what the states care about as a collective. ECOS looks forward to you delivering a Keynote Address at our Spring Meeting at 10:00 am on Friday, April 7 at the Mayflower Hotel and at the state-EPA closed discussion from 3:30-4:30 pm that afternoon. We are working with your team to ensure you have all the needed information related to these events.

Again, we thank you for your desire to work closely with the states, and for your strong and early support of ECOS.

Sincerely,

John Linc Stine
President
Environmental Council of the States

Alexandra Dapolito Dunn
Executive Director & General Counsel
Environmental Council of the States

Cc: Layne Bangerter (Deputy Associate Administrator, Office of Congressional and Intergovernmental Relations (OCIR)), Tate Bennett (Senior Adviser, OCIR), Ken Wagner (Senior Adviser to the Administrator on Regional and State Affairs)

Mon Mar 27 10:39:41 EDT 2017
Hope.Brian@epamail.epa.gov
FW: Important job seeker
To: CMS.OEX@epamail.epa.gov

FYI to OARM

From: Reis Fitzsimmons [mailto: (b) (6)
Sent: Friday, March 24, 2017 6:06 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: Important job seeker

Dear Mr. Pruitt,

(b) (6)

Sincerely,

Reis A. Fitzsimmons

(b) (6)

(b) (6)

Mon Mar 27 10:41:22 EDT 2017
Hope.Brian@epamail.epa.gov
FW: Keystone Pipeline
To: CMS.OEX@epamail.epa.gov

Assign FYI

From: Greg Foster [mailto: (b) (6)
Sent: Friday, March 24, 2017 8:44 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: Keystone Pipeline

Greg Foster, MPH, MA

(b) (6)

(b) (6)

(b) (6)

Dear EPA director Scott Pruitt,

I believe that the Keystone XL pipeline should never be built.

I stand united with people across America and around the world in total opposition to the climate-wrecking Keystone XL tar sands pipeline.

The Keystone XL will be a disaster for people who live along the pipeline's route through America's heartland.

The pipeline will be a catastrophe for our environment and our climate.

The pipeline's promises of energy security, jobs and economic growth are a fantasy.

Therefore I will stand with the Natural Resource Defense Counsel -- in court, in the halls of Washington, and in the streets -- until we stop the Keystone XL pipeline.

Sincerely,

Greg Foster

Mon Mar 27 10:47:27 EDT 2017
Hope.Brian@epamail.epa.gov
FW: Project Breeze
To: CMS.OEX@epamail.epa.gov

From: bryan eldredge [mailto: (b) (6)
Sent: Sunday, March 26, 2017 12:03 PM
To: Pruitt, Scott <Pruitt.Scott@epa.gov>
Subject: Project Breeze

A simple program, that combats gobal warning from the ground up, a easy new way to recycle

With the help of the EPA.

Bryan Eldredge

(b) (6)

Thank you

DEAR Scott Pruitt:

I am writing to ask you to oppose the HR 637 + any other bill that moves us backward in the fight against climate change. We cannot continue to ignore the clear science that climate change is a real + dangerous.

thank you for your time.

Sincerely,

BETTY VILLANO

(b) (6) (b) (6) (b) (6)