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SPECIAL INSTITUTE ON

Air Quality Issues Affecting Oil, Gas, and Mining Development and Operations

Mineral Law Series
Volume 2018, Number 1

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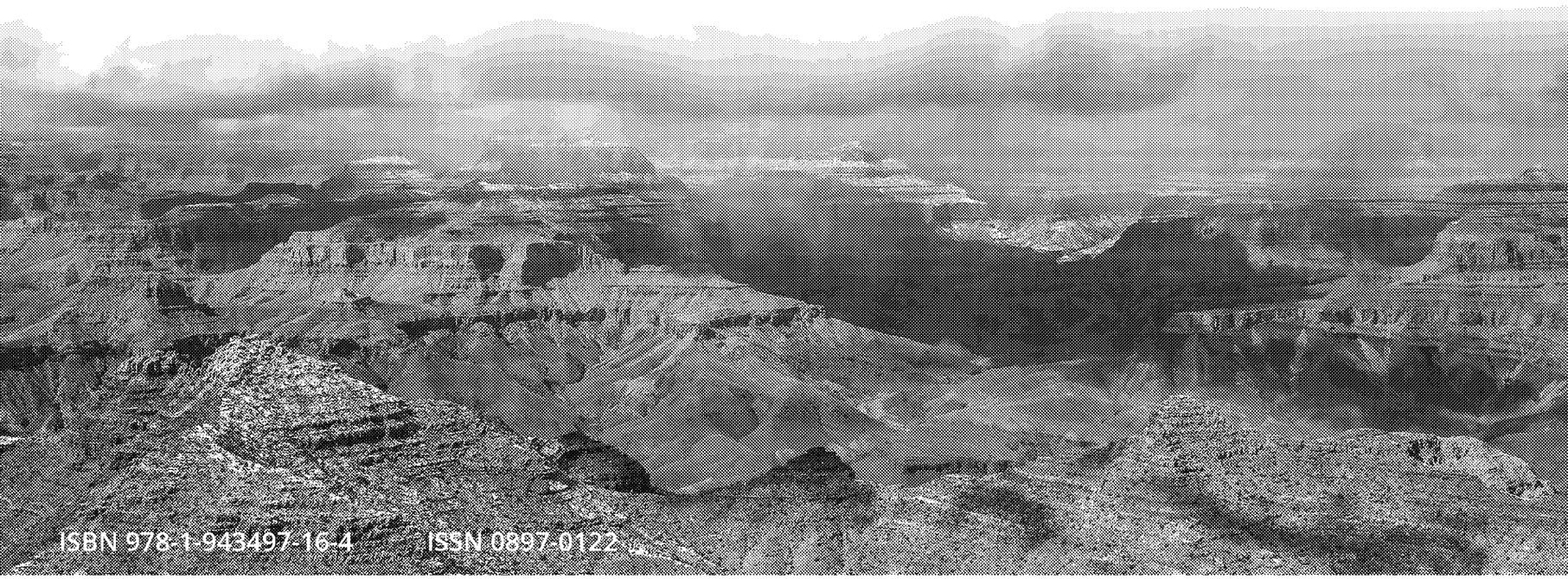

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Air Quality Issues Affecting Oil, Gas, and Mining Development and Operations

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IVAN L. LONDON, Program Co-Chair; Associate, Bryan Cave LLP, Denver, CO

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Program

DAY 1: Tuesday, February 6, 2018

Registration

Introduction and Opening Remarks

ALEX RITCHIE, Executive Director, Rocky Mountain Mineral Law Foundation, Westminster, CO

RANDY DANN, Program Co-Chair; Partner, Davis Graham & Stubbs LLP, Denver, CO

Keynote Address: Updates from the EPA Office of Air and Radiation

MANDY GUNASEKARA, PrIncipal Deputy Assistant Administrator, EPA Office of Air and Radiation, Washington, DC

The Changing Regulatory and Legal Landscape of Air Quality and Climate Change Law Under the Trump Administration ..... Paper 1

CYNTHIA GILES, former Director, EPA's Office of Enforcement and Compliance Assurance, Washington, DC; Director of Strategic Initiatives, Energy & Environment Lab, University of Chicago, Chicago, IL

CLAY TAYLOR, Attorney, Whiting Petroleum Corporation, Denver, CO

PETER ZALZAL, Special Projects Director and Lead Attorney, Environmental Defense Fund, Boulder, CO

Legal Impacts of Increased Public Availability of Air Quality Data ..... Paper 2

ADAM BABICH, Professor of Law, Tulane University School of Law, New Orleans, LA

Hosted Refreshment Break

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Ozone in the West: Do We Have the Right Tools in Our Toolbox?..... Paper 3

COURTNEY TAYLOR, Air Quality Scientist and Project Manager, AECOM Environment, Fort Collins, CO

NANCY VEHR, Administrator, Air Quality Division, Wyoming Department of Environmental Quality, Cheyenne, WY

ROBYN L. WILLE, Assistant Attorney General, Air Quality Unit, Colorado Attorney General's Office, Denver, CO

New Source Performance Standard OOOOa:
Legal and Technical Implementation Issues and Lessons Learned..... Paper 4

SHANNON S. BROOME, Partner, Hunton & Williams, San Francisco, CA & Washington, DC

JOEL MINOR, ASSOCIATE Attorney, Earthjustice, Rocky Mountain Office, Denver, CO

Lunch – On Your Own

EPA's Authority to Delay/Postpone Enforcement of Its Regulations..... Paper 5

WHIT SWIFT, Partner, Bracewell LLP, Austin, TX

Recent Events and Trends from the State Perspective..... Paper 6

CHRIS COLCLASURE, Deputy Director, Air Pollution Control Division, Colorado Department of Public Health and Environment, Denver, CO

Hosted Refreshment Break

Addressing Ethical Issues in Transactional Due Diligence..... Paper 7

RONALD R. LEVINE II, Partner, Arnold Porter Kaye Scholer LLP, Denver, CO

LUCY STARK, Partner, Holland and Hart LLP, Denver, CO

The Upstream Oil and Gas Storage Tank Enforcement Initiative:
New Design, Maintenance, and Operational Issues..... Paper 8

SARAH BARTLETT, SR., EHS Manager, PDC Energy, Inc., Denver, CO

CHELSEA GROSSI, Associate, Davis Graham & Stubbs LLP, Denver, CO

ADAM MEYER, Engineer, ZAP Engineering Services, Lakewood, CO

Hosted Reception for Registrants, Speakers & Guests

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DAY 2: Wednesday, February 7, 2018

Introduction to Day 2

IVAN L. LONDON, Program Co-Chair; Associate, Bryan Cave LLP, Denver, CO

Preparing for Regional Haze Phase II:
Nuts and Bolts for Mining, Oil and Gas, and Other Non-EGU Emission Sources ..... Paper 9

MARIE B. DURRANT, Of Counsel, Ray Quinney & Nebeker, Salt Lake City, UT

E. BLAINE RAWSON, Shareholder, Ray Quinney & Nebeker, Salt Lake City, UT

Analyzing Climate Change Impacts in the NEPA Process:
What Impact Will Executive Order 13783 Have on Federal Agencies' NEPA Reviews?.. Paper 10

ANDREW EMRICH, Partner, Holland and Hart LLP, Denver, CO

ERIK PETERSEN, Supervising Attorney General, Water and Natural Resources Division—Natural Resources Section, Wyoming Attorney General's Office, Cheyenne, WY

Hosted Refreshment Break

Litigation Update:
Highlights of 2017 Litigation Related to Air Quality Regulations and Enforcement Impacting the Oil, Gas, and Mining Sectors ..... Paper 11

OLIVIA D. LUCAS, Counsel, Faegre Baker Daniels LLP, Denver, CO

JILL VAN NOORD, Of Counsel, Holland & Hart LLP, Denver, CO

Lunch – On Your Own

Clean Air Risk Management Plan Issues and Enforcement ..... Paper 12

BRIAN NELSON, Manager, Environmental Health & Safety Commerce City, Suncor Energy Services Inc., Denver, CO

JACY T. ROCK, Legal Counsel—R&M U.S.A., Suncor Energy Services Inc., Denver, CO

Hosted Refreshment Break

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Cooperative Federalism Under the Clean Air Act:
New Horizons in State Regulatory and Enforcement Primacy Under a Trump EPA ..... Paper 13

COLIN G. HARRIS, Partner, Faegre Baker Daniels LLP, Boulder, CO

ALAN LINDSEY, Senior Legal Counsel, Hess Corporation, Houston, TX

MAGGIE OLSON, Assistant Attorney General, North Dakota Attorney General's Office, Bismarck, ND

Complying with the Clean Air Act in Indian Country..... Paper 14

Developing a Sustainable, Diverse Air Quality Program in Indian Country ....Paper 14A

MARK A. HUTSON, Southern Ute Indian Tribe Air Quality Program Manager Durango, CO

Complying with the CAA in Indian Country .....Paper 14B

CLARA POFFENBERGER, Attorney, Clara Poffenberger Environmental Law and Policy LLC, Washington, DC

Federal and Tribal Implementation of the Clean Air Act in Indian Country ...Paper 14C

K.C. SCHEFSKI, Regional Counsel, EPA Region 8, Denver, CO

Course Adjournment

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Biographical Sketches

Program Co-Chairs

RANDY DANN is a partner in the Environmental Group of Davis Graham & Stubbs LLP, in Denver, where his practice focuses on complex environmental litigation and enforcement, transactions, permitting and regulatory compliance, and site remediation. Mr. Dann has experience in a wide variety of matters governed by the Clean Air Act, CERCLA, the Clean Water Act, RCRA, and similar state environmental laws. In particular, Mr. Dann is a leader in the field of air quality and climate change regulation and enforcement issues facing the energy and other natural resource industries in Colorado and across the country. Mr. Dann routinely represents clients in air quality enforcement actions brought by EPA and various state agencies, and has significant experience representing energy clients before the Colorado Air Quality Control Commission and in other federal and state rulemaking proceedings. Additionally, Mr. Dann plays a prominent role in developing air quality and climate change policy for various oil and gas trade associations.

IVAN L. LONDON is an associate in the Denver office of Bryan Cave LLP, where he primarily represents energy/natural resources and manufacturing clients – particularly in the oil and gas industry – in dealing with complex environmental and litigation matters. He assists clients in the administrative rule-making process, interacting with regulatory agencies during enforcement proceedings, litigating disputes in both administrative and civil settings, conducting compliance audits and defending government investigations.

Speakers and Program Committee

ADAM BABICH teaches environmental law, administrative law, and civil procedure at Tulane Law School, in New Orleans. From 2000-2017, he directed the Tulane Environmental Law Clinic. Before joining Tulane, Adam practiced with private law firms, as a government enforcement lawyer, and as adjunct attorney for the Environmental Defense Fund. He was a trial lawyer on the nation's first remedy trial under the Superfund law and has litigated high profile cases that resulted in, inter alia, shut-down of a plutonium-contaminated incinerator at the Rocky Flats nuclear weapons plant near Denver, an injunction to abate Clean Air Act violations at an ExxonMobil-operated oil refinery near New Orleans, cleanup of mercury contamination in Louisiana's Monroe Gas Field, and relocation of residents exposed to unsanitary conditions near a Baton Rouge sewage treatment plant. Adam has taught at Georgetown University Law Center, American University, and the University of Denver. He has also served as a judicial law clerk for the Colorado Supreme Court and as the Environmental Law Reporter's editor-in-chief.

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More than 325 publications and five court opinions cite his articles. Under his leadership, the Tulane Environmental Law Clinic raised more than $3.8 million in foundation grants, contributions, and attorney-fee awards. In 2010, the Clinic received the Federal Bar Association's (New Orleans Chapter) Camille F. Gravel, Jr. Pro Bono Award.

SARAH BARTLETT is a Sr. EHS Manager at PDC Energy, in Denver. Sarah has spent her career working in various aspects of air quality and environmental compliance in the oil and gas industry, first in a consultant role and then for oil and natural gas exploration and production operators. At PDC, Sarah has been charged with developing and managing air quality compliance and environmental data management programs. She graduated from the Colorado School of Mines with a BS in Chemical Engineering and an MS in Engineering Technology Management. Sarah is currently a co-chair for the Air Quality Subcommittee for the Colorado Oil and Gas Association and serves on the advisory committee for COGA's Energy Generation Leadership Program (EnGen). Sarah was named one of the Denver Business Journal's 2016 Top Women in Energy.

SHANNON S. BROOME is the managing partner of Hunton & Williams' San Francisco office and also practices in its Washington, DC office. Splitting her time between the San Francisco and Washington offices allows her to serve clients nationally, and with a focus on California, a jurisdiction frequently at the forefront of environmental regulation. She counsels, advocates, and represents clients on a range of environmental statutes before state and federal courts and administrative agencies. Her practice has a particular emphasis on the Clean Air Act and climate change, and corresponding state and local statutes and regulations. Shannon is a nationally recognized authority on Clean Air Act matters, with more than 25 years of experience addressing all aspects of the act, representing clients in a variety of manufacturing and energy sectors. Chambers USA describes Shannon as "a veritable Clean Air Act encyclopedia," stating that "her strong technical engineering background has been an invaluable asset" and noting that her "record of success speaks for itself." Of particular relevance to today's topic, Shannon is representing the Texas Oil & Gas Association in challenges to EPA's oil and gas emission regulations (Quad 0 and Quad Oa). From 1994 to 2000, Shannon was counsel and manager of Clean Air Act programs for the General Electric Company, where she was responsible for CAA advocacy, compliance, and training for more than 200 manufacturing facilities. Previously, she was an environmental and construction engineer for Chevron, USA. Ms. Broome earned her B.S. in Chemical Engineering from UCLA and J.D. from UC Berkeley, where she is a member of the Order of the Coif (top 10%). Shannon is the immediate past Co-Chair of the American Bar Association's Climate Change, Sustainable Development, and Ecosystems Committee and currently serves as a Vice-Chair on the Air Quality Committee and the Climate Change, Sustainable Development, and Ecosystems Committee. In 2017, she was named to the California Daily Journal's list of the Top 100 Women Attorneys in the state.

CHRIS COLCLASURE is the Deputy Director of the Colorado Department of Public Health and Environment, Air Pollution Control Division. Chris leads a team that develops statewide policies for reducing emissions and improving air quality in a cost-effective manner through a combination of regulatory and non-regulatory measures. Chris manages initiatives to attain federal ozone standards in the Denver Metro/North Front Range nonattainment area, improve visibility in federal Class I areas, decrease nitrogen deposition in Rocky Mountain National Park,

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and reduce emissions of greenhouse gases and other pollutants. He directs Colorado's implementation of the Volkswagen emissions settlement and recently published the state's plan to spend $68 million of environmental mitigation trust funds to lower emissions of nitrogen oxides while promoting the adoption of alternative fuel and zero emission vehicles. Chris oversaw the 2017 revisions to Colorado's leak detection rules for oil and natural gas facilities and is leading a stakeholder process to evaluate potential statewide hydrocarbon emission reduction strategies. Before moving to his current position, Chris practiced air quality and environmental law at a Denver-based law firm. He continues to practice law as a member of the United States Air Force Reserves.

MARIE BRADSHAW DURRANT is Of Counsel, with the law firm of Ray Quinney & Nebeker, in Salt Lake City, UT. She assists clients with environmental compliance and litigation involving the Clean Air Act and other environmental statutes, including issues involving Indian tribes and tribal lands. She has represented energy and natural resource clients in legal challenges to rulemakings, permitting, and enforcement actions at the local, regional and national levels. She also has extensive experience helping clients respond to information requests and investigations by the EPA and other administrative agencies, negotiating settlements for potential violations, and developing administrative and legislative strategies to address broad legal environmental concerns. Ms. Durrant worked as a Legal Fellow at the Institute for Clean and Secure Energy, where she conducted policy research for the Department of Energy on the Clean Air Act, climate change legislation, unconventional fossil fuels, and carbon capture and sequestration. During law school she worked with a large energy law firm in Kazakhstan, and before becoming an attorney she served as a research fellow at Brigham Young University in the Women's Research Institute and the Kennedy Center for International Studies. She was also adjunct faculty in the departments of Geography, Anthropology, and Social Work. Years ago, she served in the U.S. Peace Corps in Chad, Africa, and she maintains her African and university connections through an annual student study abroad trip to climb Mount Kilimanjaro in Tanzania.

ANDREW EMRICH is a Partner with the law firm of Holland and Hart LLP, in Denver, CO. He has represented clients in significant litigation in the areas of mining, oil and gas, and renewable energy projects. On the permitting side, Andrew advances his clients' projects through focused strategies to obtain expeditious and defensible permitting and regulatory approvals. He helps clients challenge and reverse agency regulations and permitting decisions that obstruct energy development. Before joining Holland & Hart, Andrew served in the Bush Administration as Counsel to the Assistant Attorney General at the Environment and Natural Resources Division of the U.S. Department of Justice, where he both litigated significant environmental and natural resources cases and developed and helped develop and implement national litigation positions for federal agencies involving environmental, energy, Native American, and public lands legal positions taken by the United States in courts throughout the country.Before joining Holland & Hart, Andrew served in the Bush Administration as Counsel to the Assistant Attorney General at the Environment and Natural Resources Division of the U.S. Department of Justice, where he both litigated significant environmental and natural resources cases and developed and helped develop and implement national litigation positions for federal agencies involving environmental, energy, Native American, and public lands legal positions taken by the United States in courts throughout the country. Andrew has extensive knowledge of federal

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environmental and natural resources litigation and federal agencies' administrative and regulatory processes. He effectively advances his clients' interests in litigation and guides clients through the labyrinth of regulatory compliance necessary to authorize their energy and natural resources projects on state, federal, or private lands.

CYNTHIA GILES is Director of Strategic Initiatives, Energy & Environment Lab, at the University of Chicago. Giles has joined forces with the Energy & Environment Lab to help develop and test pioneering environmental strategies that are effective in the real world, doing cutting edge work at the intersection of research and environmental policy. She was the Assistant Administrator for the U.S. Environmental Protection Agency's (EPA) Office of Enforcement and Compliance Assurance for all eight years of the Obama Administration. In that role she led civil and criminal enforcement of the nation's environmental laws, and implemented an innovative strategy for improving compliance and reducing pollution called Next Generation Compliance. Cynthia Giles has more than 30 years of service in the public, private and non-profit sectors. She prosecuted civil violators of environmental laws as an Assistant United States Attorney in Philadelphia, led the water protection program for the Commonwealth of Massachusetts, served as the Director of Enforcement Coordination for EPA Region 3, and before returning to EPA, was the Director of the Conservation Law Foundation's Advocacy Center in Rhode Island, where she advocated for laws and policies to combat climate change and promote clean energy. Giles has a BA from Cornell University, a JD from the University of California at Berkeley and an MPA from the Harvard University Kennedy School of Government.

CHELSEA GROSSI is an associate in the environmental group at Davis Graham & Stubbs LLP in Denver, Colorado. She works with oil and gas, mining, aerospace, and manufacturing clients. Chelsea's experience includes representing clients in environmental administrative and civil litigation matters, negotiating settlements with enforcement agencies, and leading clients through privileged environmental audits. Chelsea has experience counseling clients to compliance under the CAA, CERCLA, CWA, among other environmental and safety statutes, including corresponding state statutory counterparts. Chelsea received her J.D. from the University of Denver Sturm College of Law and received a B.A. in Political Science from The Ohio State University, where she graduated with distinction. Chelsea is passionate about serving the Colorado community, and serves on the Young Professionals Council for the Rose Andom Center; an organization that co-locates services for domestic violence survivors.

MANDY GUNASEKARA is Principal Deputy Assistant Administrator for EPA's Office of Air and Radiation. As Principal Deputy Assistant Administrator, Ms. Gunasekara plays a key role in overseeing the numerous ongoing EPA initiatives related to the mission and purpose of the Office of Air and Radiation. She previously served as a Senior Policy Advisor to Administrator Pruitt, being one of the first officials on the ground at EPA in the early days of the administration. Prior to her role at EPA, Ms. Gunasekara was Majority Counsel to the U.S. Senate Committee on Environment and Public Works, where she addressed a range of environmental issues

COLIN G. HARRIS has proudly served the energy and natural resources industries in environmental, litigation, and pipeline safety matters for over 25 years. His deep air-quality experience includes compliance, permitting, policy, enforcement, and litigation. Colin's

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upstream and midstream experience includes complex and novel matters in North Dakota, Colorado, Utah, New Mexico and other states. His clients also operate in the refining and utility sectors. Colin is a recognized leader in the pipeline industry, which faces strong headwinds associated with new regulations and public opposition. He currently represents over six pipeline operators in various matters ranging from PHMSA counseling and administrative evidentiary hearings, to emergency response and litigation defense associated with major spill incidents to waters. Colin was co-appellate counsel in a 2017 precedent-setting case where the Fifth Circuit vacated much of a PHMSA order and penalty, disagreeing with the agency's interpretation of its own regulations, and ruling that it had failed to provide due process. *ExxonMobil Pipeline Co. v. Department of Transportation*, 867 F.3d 564 (5th Cir. 2017). Colin combines his energy industry expertise and regulatory knowledge with a strong litigation background. He has aggressively defended high-profile enforcement cases in pre-trial phases to achieve favorable consent decree terms. He has tried hearings and cases for energy industry clients involving pipeline safety and environmental issues, including a recent arbitration resulting in a significant settlement.

MARK A. HUTSON is the Environmental Programs Division Head, Southern Ute Indian Tribe. Mr. Hutson is an Environmental Scientist specializing in the field of air quality. After serving with the United States Marine Corps through Desert Storm in 1991, Mr. Hutson went to work with Radian Corporation as a Process and Atmospheric Chemist, providing technical support for source sampling events at hazardous waste incinerators, cement kilns, oil refineries, coal gasification units, and synthetic organic chemical manufacturing plants. He continued his career with the Texas Commission on Environmental Quality (TCEQ) as an Engineering Specialist, first working to develop air quality regulations for the state's mobile source emissions reduction program, then moving to work with TCEQ Region 5. As a Senior Air Quality Inspector at Region 5, Mr. Hutson conducted detailed air quality compliance investigations at major industrial sources and he coordinated the excess emission event program. In 2003, Mr. Hutson initiated an air quality investigation at Tyler Pipe, a division of McWane Corporation, resulting in a US Department of Justice criminal case against the company that was resolved in 2005. He served as team leader for the leak detection and repair (LDAR) monitoring program. Mr. Hutson started work as an environmental consultant as an Air Permitting Specialist in 2005, preparing Title V Operating Permit, New Source Review, and Prevention of Significant Deterioration permit applications for a wide variety of industrial sources. In this role he also provided technical and management support for remediation projects such as spills and site decontamination. Mr. Hutson began working with the Southern Ute Indian Tribe to develop their Air Quality Program resources in 2013. The Southern Ute Indian Tribe is a leader in air quality program development within Indian Country and the only Tribe to have full delegation of a Part 70 Title V Operating Permit Program. Mr. Hutson helped lead the permitting team of the Air Quality Program in the transition of 37 Title V permits from the EPA over to Tribal jurisdiction and went on to develop the compliance, enforcement, and financial resource aspects of the program. The Tribe has assumed full permitting, compliance and enforcement responsibility for Title V sources located within the exterior boundaries of the Reservation. The Tribe also operates a robust ambient monitoring program with two continuous monitoring stations reporting ambient air quality information to the EPA's Air Quality System.

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RONALD R. LEVINE II is a partner in the Denver office of Arnold & Porter Kaye Scholer LLP and has 30 years of experience in corporate finance, private equity and merger and acquisition transactions. Mr. Levine's clients include public and private companies across a range of industries, including energy, private equity, technology, business services, restaurant/retail, food, and manufacturing. His practice focuses on public and private M&A transactions, private equity, securities and capital markets, and corporate governance matters. Mr. Levine also represents public companies and their boards of directors on securities disclosure and compliance issues, takeover defense and shareholder activism, and executive compensation. Mr. Levine received his J.D., cum laude, from Harvard University and a B.A. from Cornell University. He has been ranked in Chambers USA for Corporate/M&A (Colorado) every year for the last 14 years and has received recognition for his work in numerous other publications and directories, including 5280 Magazine (Denver's Mile High Magazine), Colorado Super Lawyers, and Best Lawyers. He is also active in community affairs and serves on several not-for-profit boards.

ALAN LINDSEY is Senior Legal Counsel at Hess Corporation, where he practices environmental and regulatory law, with a particular focus on Clean Air Act, remediation, and DOT issues. His practice includes representing Hess in connection with regulatory compliance and enforcement, energy transactions, permitting, and policy and rulemaking related to environmental, health and safety, and transportation matters. He is involved in all aspects of production, transportation, and processing of oil and gas in both state and federal jurisdictions. He received his undergraduate degrees (B.J., Journalism; B.A., Political Science; both 1999) from the University of Missouri and his law degree (J.D. 2004) from the University of Houston. Mr. Lindsey served as the chair of the Legal Subcommittee of the Bakken Upstream Air Task Force, which engaged with the North Dakota Department of Health to develop a plan for addressing fugitive emissions at upstream oil and gas sites in North Dakota.

OLIVIA LUCAS helps businesses solve environmental regulatory and compliance challenges. As Counsel in the Denver, Colorado office of Faegre Baker Daniels, Olivia represents industrial, oil and gas, and other energy clients in state and federal Clean Air Act permitting, enforcement and rulemaking matters. She also counsels clients on Clean Water Act and CERCLA issues, and represents clients in administrative appeals and environmental litigation before state and federal agencies and courts. Olivia graduated cum laude from Harvard University. A few years later, she moved to Colorado to attend the University of Colorado School of Law. A Texas native, Olivia briefly returned to the South after graduating from CU Law to serve as a clerk for the Honorable Rhesa H. Barksdale on the Fifth Circuit Court of Appeals in Jackson, MS, before officially making Colorado her home.

ADAM MEYER is a senior mechanical engineer and analyst with ZAP Engineering and Construction Services based out of Lakewood, CO. He has over 15 years of experience in the design and analysis of fluid, cryogenic, and heat transfer systems. Adam started his career as an engineer with General Dynamics Electric Boat building submarines for the US Navy before migrating south to work as an engineer at NASA's Kennedy Space Center (KSC) on the space shuttle program. There he performed analysis and design for various Ground Support Equipment (GSE) including liquid hydrogen and liquid oxygen systems, hypergolic systems, and gaseous systems. Adam became the Subject Matter Expert in Pressure Vessel / System

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Certifications – an effort to ensure pressure vessel and pressure system compliance with federal, NASA, state, and industry codes and standards. Adam went to work for Siemens as a mechanical engineer after the end of the shuttle program to design auxiliary systems and equipment supporting gas turbines, before being called back to KSC to join NASA in designing the GSE for the next generation of space flight – the Space Launch System (SLS). Exhausted from the Florida heat, Adam and his wife Natalie moved to Denver in 2014 where Adam began work for ZAP Engineering and Construction Services. Since joining ZAP, Adam has engineered equipment and piping systems for LNG plants, processing plants, material handling plants, midstream compression plants, and well pad facilities. Adam became involved with the analysis of storage tank vapor control systems behind the scenes and has developed modeling guidelines and design standards to reduce emissions at existing sites and new facilities. He has inspected and test over +200 well production facilities and analyzed and re-engineered over +1000 sites in Colorado, Ohio, North Dakota, Utah, and Texas. Adam received his Bachelors of Science in Mechanical Engineering from Pennsylvania State University in 2002 and his Masters of Science in Mechanical Engineering Thermal Fluids Transport from University of Florida in 2010.

JOEL MINOR is an Associate Attorney with Earthjustice's Rocky Mountain Office in Denver, where he works to protect communities and ecosystems from the harmful impacts of energy development. His work focuses on reducing air pollution from the oil and gas sector. Prior to Earthjustice, Joel served as a law clerk for Hon. Carlos F. Lucero of the Tenth Circuit Court of Appeals. Joel earned a J.D. and an M.S. in Environment and Resources with an emphasis in Atmospheric Science from Stanford. He graduated from Colorado College with a B.A. in Environmental Policy and a minor in Southwest Studies.

BRIAN NELSON is currently Environmental Health and Safety ("EHS") Manager with Suncor Energy Services Inc., where he manages a team of EHS professionals that serve as both the corporate EHS center for Suncor Energy (U.S.A) Inc. as well as the daily EHS support staff Suncor's Commerce City Refinery. Prior to becoming the EHS Manager, Brian was the Manager of Process Safety and Operational Excellence at Suncor's Commerce City Refinery. At the Commerce City Refinery, Brian has done significant work on the Refinery's OSHA Process Safety Management ("PSM") and Risk Management Plan ("RMP") programs and has played an integral role in developing corporate process safety standards for Suncor, helping implement a similar set of process safety programs in Suncor's Canadian business units. Prior to joining Suncor, Brian worked for ExxonMobil Corporation at their Chalmette, LA refinery where he held a variety of safety and fire protection engineering roles. Brian began his career with Phillips 66 Chemical Company and later ChevronPhillips Chemical LLC in Pasadena, TX. It was there that Brian gained the deep appreciation for the importance of process safety in the petrochemical industry that guides him in his work today. Brian is a graduate of Oklahoma State University with a degree in Fire Protection and Safety Engineering Technology (Summa Cum Laude). Brian lives with his wife and two boys in Thornton, CO.

MAGGIE OLSON is an Assistant Attorney General in the North Dakota Attorney General's Office, in Bismarck. She is a North Dakota native and graduate of the University of Denver's Sturm College of Law. Since 2008, Maggie has been general counsel for the North Dakota Department of Health's Environmental Health Section.

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ERIK PETERSEN is a Supervising Attorney General in the Natural Resources Section within the Water and Natural Resources Division of the Wyoming Attorney General's Office. Erik received his Juris Doctorate degree from the George Washington University Law School in 2003. Later that same year, Erik began his legal career as an associate in the Washington D.C. office of Bracewell LLP, a full-service law firm that specializes in assisting clients with energy and natural resource issues. Erik eventually left private practice in order to accept a position in the Environmental and Natural Resources Division of the United States Department of Justice. While there, Erik served as lead defense counsel in a number of cases involving wildlife and marine resource issues. At the same time, Erik taught administrative law at the George Washington University. Erik joined the Wyoming Attorney General's office in 2015, where he represents Wyoming in federal litigation that the Governor determines necessary to protect the State's natural resource interests. The subject matter of these cases is diverse and includes litigation arising under statutes such as the Clean Air Act, the Clean Water Act, the Endangered Species Act, the National Environmental Policy Act, and the Federal Land Policy and Management Act. Examples of Erik's work include representing Wyoming in: (1) a challenge to EPA's "Clean Power Plan" rule; (2) a challenge to EPA's "Waters of the United States" rule; and (3) defending the Fish and Wildlife Service's decision to remove the Greater Yellowstone Ecosystem grizzly bear from the Endangered Species list.

CLARA POFFENBERGER is an environmental attorney with over 26 years of experience with air pollution laws and regulations. She began her career at the U.S. Environmental Protection Agency, first in the Office of Air and Radiation in Washington D.C. and then in the Air Enforcement Division of the Office of Enforcement and Compliance Assurance ("OECA"). Having become nationally recognized for proficiency with various Clean Air Act programs, Clara joined private practice to work with companies on Clean Air Act compliance and enforcement matters as well as regulatory advocacy. Clara worked with companies with facilities all over the United States on air pollution regulation, permitting and enforcement matters. In addition, Clara created and developed Baker Botts' Latin America Environmental Law Practice that included managing a client group with interests in Latin America as well as a network of environmental lawyers in the Americas. From 2006 to 2012, as ExxonMobil's lead attorney on New Source Review matters, the New Source Review Consent Decree, fuel regulatory matters, and climate change regulatory matters, Clara worked with all segments of the oil and gas industry, working on pipeline issues as well as with XTO on air regulatory and permitting issues. Returning to private practice in 2012, Clara continues to represent the oil and gas industry and chemical manufacturers on air regulatory issues. Clara is licensed in Virginia and Washington D.C. but provides compliance guidance and strategy support at the national level and state level, including state air regulations that are based on federal rules. Clara graduated from the Washington College of Law at the American University in Washington D.C. with a Master in International Law and Affairs as well as a J.D. Clara graduated from Virginia Tech in Blacksburg, Virginia with a Bachelors of Art in International Studies and International Development.

E. BLAINE RAWSON, a shareholder at Ray Quinney & Nebeker in Salt Lake City, Utah, is a member of the Firm's Litigation Section and the Chair of the Environmental and Natural Resources Section. Mr. Rawson has practiced environmental law, natural resources law, and commercial litigation since graduating from the University of Utah in 1995. His expertise covers Clean Air Act, CERCLA, RCRA, and Clean Water Act litigation and counseling, as well as related

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The Changing Regulatory and Legal Landscape of Air Quality and Climate Change Law Under the Trump Administration

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Paper 1

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§ 1.Introduction

Since President Trump took office on January 20, 2017, his administration's impacts on air quality and climate change regulation, enforcement and litigation have already been substantial, especially as those impacts relate to the oil and natural gas and mining industries. This paper summarizes and discusses how the Trump administration, including new leadership at the Environmental Protection Agency (EPA), and the 115th Congress have approached several

[1] Mr. London and Ms. Kwak are the authors of § 2, and thank their co-authors for their comments and revisions to that section of this paper. Mr. Taylor is the author of § 3[1]. Mr. Zalzal is the author of § 3[2]. And, Ms. Giles is the author of § 3[3].

The views expressed in this paper are solely those of the author (or authors).

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air quality and climate change topics. Afterward, the paper will provide illustrative perspectives on the changing landscape from industry, the non-governmental organization (NGO) community and regulatory-enforcement community.

§ 2.Air Quality and Climate Change Topics

[1] "Energy Independence"

In early 2017, the Trump administration quickly took several controversial steps regarding air quality and climate change regulation. In March 2017, President Trump signed an executive order calling for, among other things, a review of all existing regulations that potentially burden the development or use of domestically produced oil, natural gas and coal.[2] This "Energy Independence" order also revoked several Obama administration actions pertaining to greenhouse gases, and withdrew documents associated with the "social cost of carbon."[3] It further directed agencies to rescind guidance on greenhouse gas issues in the National Environmental Policy Act (NEPA) process, and reconsider greenhouse gas rules applicable to mining and oil and natural gas.[4]

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[2] Exec. Order No. 13,783, at §§ 1(c) & 2, 82 Fed. Reg. 16093 (Mar. 31, 2017).

[3] *Id.* at 16096-97, §§ 3(a)-(b) & 5 (rescinding greenhouse gas actions and withdrawing social cost of carbon guidance).

[4] *Id.*, at §§ 3(c) (rescinding NEPA greenhouse gas guidance), 4 & 7(a) (EPA actions), 6 & 7(b)-(c) (DOI actions). *See* § 24.02 for further analysis of these developments associated with air regulations.

[2] Changing Course

The practice of a new administration changing a prior administration's actions dates back to the early days of America.[5] However, in modern America, an agency cannot discard prior policies without explaining how the new action is consistent with the agency's statutory mandate, and providing a reasoned explanation grounded in the factual record.[6] Accordingly, the agencies' statutory authorizations, the Administrative Procedure Act (APA) and the courts' interpretations of those laws will limit the extent to which President Trump and his agencies can rescind or revise air quality and climate change regulations.[7] When changing course, the agency must explain why its new policy is justified.[8] Its reasons for the new policy do not have to be *objectively better* than the reasons for the old.[9] Instead, the new policy must be permissible

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[5] *See, e.g.*, Marbury v. Madison, 5 U.S. 137, 137 (1803) (in its final hours, the John Adams Administration appointed a justice of the peace, but James Madison, Thomas Jefferson's secretary of state, refused to deliver the commission).

[6] Organized Vill. of Kake v. U.S. Dep't of Agric., 795 F.3d 956, 968 (9th Cir. 2015), *cert. denied sub nom.* Alaska v. Organized Vill. of Kake, Alaska, 136 S. Ct. 1509 (2016).

[7] *See* 5 U.S.C. § 706(2)(A). An action is "arbitrary and capricious" if the agency's explanation runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view. Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983).

[8] Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs., 545 U.S. 967, 981 (2005).

[9] F.C.C. v. Fox Television Stations, Inc., 556 U.S. 502, 515 (2009).

under the statute, there must be *some* good reasons for it and the agency must explain why *it believes* the new approach is better.[10]

In furtherance of the "Energy Independence" order, EPA and other agencies are undertaking a potentially wide-ranging review of existing air quality and climate change regulations pursuant to President Trump's order that they "alleviate unnecessary regulatory burdens placed on the American people."[11] In the context of President Trump's demand for reconsideration of air-emission issues related to fossil fuel development, the potential wholesale change in course by the Trump administration, EPA and other agencies portends significant efforts to change environmental regulations that could affect mining and oil and natural gas operations for many years to come. Meanwhile, potential challengers are scrutinizing every rulemaking that eases or removes climate and air quality requirements and standards for consistency with the APA and the agencies' statutory duties.

[3] Congressional Review Act

In 1996, as part of the "Contract with America," Congress enacted the Congressional Review Act to police the executive branch's use of rulemaking to execute Congress' laws.[12] Congress often gives broad and generalized grants of authority to executive-branch agencies, and some members of Congress have long worried that its delegations of authority would give agencies too much power; however, the only way for Congress to check administrative authority

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[10] *Id.*

[11] 82 Fed. Reg. at 17793 (quoting Exec. Order No. 13,777, at § 1).

[12] *See generally* Small Business Regulatory Enforcement Fairness Act of 1996, Pub. L. No. 104-121, § 251, 110 Stat. 847, 868-874 (1996) (codified as 5 U.S.C. §§ 801-808).

once given is by legislative act.[13] In a sense, the Act just reiterates that Congress can use legislation when it wants to disapprove of an agency action.[14] Congress always had this power, but the Act gained attention with government transition because, in the past, it has seemed unlikely that a president would sign a law disavowing a regulation that the president's *own agency* had just enacted.[15]

Moreover, the Congressional Review Act streamlines Congress' ability to nullify regulations. First, the Act shortens the time needed to nullify an agency rule by shortening the congressional procedure and avoiding the need for time-consuming executive-branch rulemaking.[16] Second, the Act prohibits the repudiated agency from reissuing "a new rule that is substantially the same" as the repudiated rule unless Congress specifically authorizes such a rule.[17] The Act does not define the meaning or scope of "substantially the same," nor does it provide any criteria for assessing similarity or designate who should make a "substantially the same" determination. Similarly, courts have also yet to interpret the meaning of "substantially the same."

While Congress nullified two environmental rules that are relevant to mining and oil and natural gas operations, it notably failed to nullify a third rule with air quality and climate change

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[13] I.N.S. v. Chadha, 462 U.S. 919, 951-52 (1983) (citing U.S. Const. art. I, § 7).

[14] *Compare* 5 U.S.C. § 802 *with Chadha*, 462 U.S. at 951-52.

[15] "The Mysteries of the Congressional Review Act," 122 Harv. L. Rev. 2162, 2167 (2009); Tim Devaney, "GOP Finds Its Secret Weapon," The Hill (Jan. 19, 2015), http://thehill.com/regulation/legislation/229936-gop-finds-its-secret-weapon.

[16] *See* "The Mysteries of the Congressional Review Act," 122 Harv. L. Rev. at 2168.

[17] 5 U.S.C. § 801(b)(5).

consequences. Congress nullified the Department of the Interior's (DOI) Stream Protection Rule, which addressed the impacts of surface coal mining operations on surface water and groundwater,[18] and Congress nullified the DOI's "Planning 2.0" procedures for preparing, revising and amending land-use plans pursuant to the Federal Land Policy and Management Act of 1976.[19] However, the Senate voted *not* to consider nullifying the Bureau of Land Management's (BLM) Venting and Flaring Rule,[20] which presented a notable setback to the Trump administration's push to reduce regulation of the oil and natural gas industry.[21]

[4] Chevron Deference

As demonstrated by Congress's policing of regulation under the Congressional Review Act, the separation of power and respect different governmental branches accord each other informs many issues in air quality and climate change regulation, enforcement and litigation. Turning to the judiciary's role, the fundamental principle that courts apply when reviewing such issues arises from a Supreme Court case in which the Court interpreted EPA's authority to

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[18] Joint Resolution, Pub. L. No. 115-5, 131 Stat. 10 (Feb. 16, 2017).

[19] Joint Resolution, H.J. Res. 44 (Mar. 27, 2017) (to be enacted as Pub. L. No. 115-12). BLM 2.0 was an attempt by BLM to modernize how the public and stakeholders are engaged in order to improve management decisions that could affect lands all across the western United States.

[20] U.S. Senate, Roll Call Vote 115th Congress – 1st Session, Vote Number 125, https://www.senate.gov/legislative/LIS/roll_call_lists/roll_call_vote_cfm.cfm?congress=115&session=1&vote=00125. *See* § 2[8] for discussion of BLM's Venting and Flaring Rule.

[21] Valeri Volcovici, REUTERS, *Bid to revoke Obama methane rule fails in surprise U.S. Senate vote*, available at https://www.reuters.com/article/us-usa-congress/bid-to-revoke-obama-methane-rule-fails-in-surprise-u-s-senate-vote-idUSKBN18620F (May 10, 2017).

implement the Clean Air Act. In several sections of the Act, Congress authorized and ordered EPA to regulate emissions from "sources" and "stationary sources" but left some ambiguity about what constitutes such a source.[22] EPA has grappled with the ambiguity for decades and in several different rulemaking proceedings.[23] After one such rulemaking proceeding, environmental petitioners challenged one of EPA's early interpretations of the term "stationary source," but the Supreme Court held that EPA's interpretation was a "permissible" construction of the statute.[24] In doing so, the Supreme Court created what courts call "*Chevron* deference."[25]

Chevron deference requires a court reviewing an agency's construction of a statute to take two steps. First, if Congress has directly spoken to the precise question at issue, then the court (and the agency) must give effect to Congress' unambiguously expressed intent.[26] Second, if the court determines Congress has not addressed the precise question at issue, then the court must determine whether the agency's construction of the statute is "permissible."[27] Courts rarely find that an agency's interpretation of an ambiguous statute is *not* permissible.[28]

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[22] *E.g.*, 42 U.S.C. §§ 7410(a)(2)(L) & 7503.

[23] *See, e.g.*, 81 Fed. Reg. 35622 (June 3, 2016) (promulgating a unique interpretation of the term "stationary source" as is used in the Clean Air Act's major-facility permitting requirements for application specifically to upstream and midstream oil and natural gas operations).

[24] Chevron, U.S.A., Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837, 866 (1984)

[25] *E.g.*, Michigan v. EPA, 135 S. Ct. 2699, 2712 (2015) (Thomas, J., concurring).

[26] *Chevron*, 467 U.S. at 842-43.

[27] *Id.* at 843.

[28] Jason J. Czarnezki, An Empirical Investigation of Judicial Decisionmaking, Statutory Interpretation, and the Chevron Doctrine in Environmental Law, 79 U. Colo. L. Rev. 767, 775

The environmental aspects of mining and oil and natural gas operations are often subject to regulation. Environmental statutes, like the statute at issue in the *Chevron* case, tend to grant broad authority to agencies like EPA to address the environmental consequences of these operations, and courts tend to uphold agency construction of ambiguous statutes. Accordingly, *Chevron* deference has become a fundamental, powerful tool for environmental regulation of mining and oil and natural gas operations.[29] However, some judges and justices (including the newest Supreme Court Justice[30]) have expressed doubts about *Chevron* deference because of their views that it affords agencies greater powers than what Congress intended.[31]

(2008) ("Due to the difficulty in defining step two, courts rarely strike down agency action ...."); *but see Michigan*, 135 S. Ct. at 2707 ("Even under this deferential standard, however, 'agencies must operate within the bounds of reasonable interpretation.' EPA strayed far beyond those bounds when it read § 7412(n)(1) to mean that it could ignore cost when deciding whether to regulate power plants." (citation omitted)).

[29] *See* City of Arlington, Tex. v. F.C.C., 133 S. Ct. 1863, 1879 (2013) (Roberts, C.J., dissenting) ("When it applies, Chevron is a powerful weapon in an agency's regulatory arsenal."); *see also Chevron*, 467 U.S. at 842-43.

[30] Gutierrez-Brizuela v. Lynch, 834 F.3d 1142, 1149 (10th Cir. 2016) (Gorsuch, C.J., concurring) ("There's an elephant in the room with us today. We have studiously attempted to work our way around it .... But the fact is *Chevron* and *Brand X* permit executive bureaucracies to swallow huge amounts of core judicial and legislative power and concentrate federal power in a way that seems more than a little difficult to square with the Constitution of the framers' design.").

[31] *E.g.*, *Michigan*, 135 S. Ct. at 2712 (Thomas, J., concurring) ("I write separately to note that [EPA's] request for deference raises serious questions about the constitutionality of our broader

The 115th Congress has also considered legislation related to *Chevron* deference. In January 2017, federal representatives introduced the Separation of Powers Restoration Act of 2017, which would prohibit courts from applying *Chevron* deference and require courts to review all agency action *de novo*.[32] The Senate has not passed the Act, and the bill is pending review before the Subcommittee on Regulatory Reform, Commercial and Antitrust Law.[33]

[5] New Source Performance Standards

In 1970, Congress authorized EPA to set performance standards limiting emissions from newly built or modified air-pollution sources that would endanger public health or welfare.[34] Congress designed these "New Source Performance Standards" to ensure that new sources apply the best-demonstrated systems of emission reduction.[35] For example, soon after receiving authority to set performance standards limiting emissions from new and modified sources, EPA

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practice of deferring to agency interpretations of federal statutes."); *City of Arlington, Tex.*, 133 S. Ct. at 1886 (Roberts, C.J., dissenting); *see also* King v. Burwell, 135 S. Ct. 2480, 2488–89, 2495-96 (2015) (cautioning against reflexive application of *Chevron* deference).

[32] H.R. 76, 115th Cong. § 2 (2017); H.R. 5, 115th Cong. § 202 (2017).

[33] "H.R.76 - Separation of Powers Restoration Act of 2017" (2017), https://www.congress.gov/bill/115th-congress/house-bill/76/all-actions?q=%7B%22search%22%3A%5B%22Separation+of+Powers+Restoration+Act+of+2017%22%5D%7D&r=1; "H.R.5 – Regulatory Accountability Act of 2017" (2017), https://www.congress.gov/bill/115th-congress/house-bill/5/all-actions.

[34] Pub. L. No. 91-604, § 4(a), 84 Stat. 1676, 1683-84 (1970); 42 U.S.C. § 7411(b); Sierra Club v. Costle, 657 F.2d 298, 315 (D.C. Cir. 1981).

[35] 84 Stat. at 1683; 42 U.S.C. § 7411(a)(1).

found that large coal-fired power plants emitted pollution contributing substantially to the endangerment of the public health or welfare, and issued performance standards to reduce certain types of pollution from them.[36]

In 2015, EPA established performance standards for emissions of carbon dioxide for new and modified fossil fuel-fired power plants.[37] EPA set the standards based on technologies including carbon capture and sequestration and combined-cycle natural gas-fired generation.[38] In response, many States and other entities sought judicial review of the new standards.[39] The challengers alleged, among other things, that the new standards would harm development of coal resources by effectively prohibiting the construction of new coal-fired power plants.[40] On the other side, many States and stakeholders intervened to defend the standards, alleging, among other things, that EPA has a legal duty to regulate carbon emissions from the power sector and that extensive factual support underpinned the performance standards.

The parties have fully briefed these issues, and the court set the matter for oral argument on April 17, 2017.[41] However, President Trump's "Energy Independence" order specifically

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[36] *Sierra Club*, 657 F.2d at 315; 36 Fed. Reg. 24876 (Dec. 23, 1971).

[37] 80 Fed. Reg. 64510 (Oct. 23, 2015).

[38] *Id.* at 64548.

[39] *See generally* State of North Dakota v. EPA, Case No. 15-1381 (D.C. Cir.).

[40] *See* Proposed Briefing Format and Schedule of North Dakota, *North Dakota*, Case No. 15-1381 (Feb. 22, 2016); Addendum to Agency Docketing Statement, Luminant Generation Company, LLC v. EPA, Case No. 15-1482 (D.C. Cir. Jan. 22, 2016).

[41] 82 Fed. Reg. at 16331.

directed EPA to review the new standards.[42] EPA immediately asked the court to hold the legal challenges in abeyance, announced its review and provided notice of forthcoming rulemaking.[43] As such, the court removed the case from its oral argument calendar.[44] However, neither the executive order nor EPA's response changed the legal status of the standards.[45] Accordingly, the new standards apply to construction of new power plants and modification or reconstruction of existing power plants. Currently, EPA is continuing to review the rule and has requested that the court continue to hold the cases in abeyance.[46]

At the same time in 2015, EPA promulgated the Clean Power Plan.[47] Unlike the *new source* performance standards, the Clean Power Plan established emission guidelines under which each State must submit a plan to set standards for the much broader universe of *existing* power plants, which, under the Clean Air Act, is something that the States must do under certain circumstances.[48] The Obama administration made the Clean Power Plan, *i.e.*, its plan for

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[42] Exec. Order No. 13,783, at § 4(b)(ii), 82 Fed. Reg. at 16095.

[43] 82 Fed. Reg. at 16331; Notice of Exec. Order, EPA Review of Rule and Forthcoming Rulemaking, and Mot. to Hold Cases in Abeyance, *North Dakota*, Case No. 15-1381 (Mar. 28, 2017).

[44] Order, *North Dakota*, Case No. 15-1381 (Apr. 28, 2017); Order, *North Dakota*, Case No. 15-1381 (Mar. 30, 2017).

[45] Opp'n of State Intervenors to EPA's Mot. to Hold Cases in Abeyance, *North Dakota*, Case No. 15-1381, at 5-6 (Apr. 5, 2017).

[46] EPA's Status Report, *North Dakota*, Case No. 15-1381 (Oct. 27, 2017).

[47] 80 Fed. Reg. 64662 (Oct. 23, 2015).

[48] 42 U.S.C. § 7411(d)(1).

regulating greenhouse gas emissions from existing power plants, the cornerstone of its efforts to combat climate change. However, challengers sought judicial review claiming, among other things, that EPA lacked legal authority to adopt the standards, and challenging various parts of the administrative record.[49] Similar to the litigation over the new source standards, many States and interested stakeholders (including power-sector interests) intervened in defense of the standards. These groups pointed to, *e.g.*, the Supreme Court's prior explanation that the Clean Air Act and the EPA action to set limits on greenhouse gas emissions from new, modified and existing fossil-fuel fired power plants displaced any federal common-law right to seek abatement of carbon dioxide emissions from fossil-fuel fired power plants,[50] and to the potential flexibility of EPA's approach to regulating in the Plan.

In 2016, the Supreme Court ordered a stay of the regulations until the judicial proceedings end.[51] Meanwhile, President Trump's "Energy Independence" order also directed EPA to review the Clean Power Plan.[52] EPA requested, and the court granted, that the court hold the cases in abeyance while EPA reconsiders the Plan.[53] On October 16, 2017, EPA published a

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[49] *See generally* State of West Virginia v. EPA, Case No. 15-1363 (D.C. Cir.).

[50] Am. Elec. Power v. Connecticut, 564 U.S. 410, 424-25 (2011).

[51] Order, State of West Virginia v. EPA, Case No. 15A773 (U.S. Feb. 9, 2016).

[52] Exec. Order No. 13,783, at § 4(b)(i), 82 Fed. Reg. at 16095.

[53] Order, *West Virginia*, Case No. 15-1363 (Apr. 28, 2017); Notice of Exec. Order, EPA Review of Clean Power Plan and Forthcoming Rulemaking, and Mot. to Hold Cases in Abeyance, *West Virginia*, Case No. 15-1363 (Mar. 28, 2017); *see* 82 Fed. Reg. 16329 (Apr. 4, 2017).

proposal to repeal the Clean Power Plan in the *Federal Register*,[54] which was a move that EPA Administrator Pruitt announced at an event with coal miners in eastern Kentucky.[55]

As with power plants, EPA has regulated air emissions from oil and natural gas operations for decades, originally focusing on sulfur dioxide and volatile organic compound emissions from natural gas processing plants.[56] In 2012, partly in response to the rapid growth of unconventional oil and gas development, EPA greatly expanded its performance standards by promulgating new standards to regulate volatile organic compounds from a vastly larger set of equipment and upstream oil and gas operations, which EPA had not previously regulated under its new source performance standards authority.[57] In 2016, EPA expanded its standards to address greenhouse gases directly by requiring methane reductions from this larger set of equipment and operations and adopting additional requirements, including added requirements to find and fix leaks at facilities.[58]

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[54] 82 Fed. Reg. 48035 (Oct. 16, 2017).

[55] Lisa Friedman and Brad Plumer, THE NEW YORK TIMES, *E.P.A. Announces Repeal of Major Obama-Era Carbon Emissions Rule*, https://www.nytimes.com/2017/10/09/climate/clean-power-plan.html (Oct. 9, 2017); U.S. EPA, *EPA Takes Another Step to Advance President Trump's America First Strategy, Proposes Repeal Of "Clean Power Plan"* (Oct. 10, 2017) *https://www.epa.gov/newsreleases/epa-takes-another-step-advance-president-trumps-america-first-strategy-proposes-repeal*.

[56] *See generally* 40 C.F.R. part 60 subparts LLL and KKK.

[57] *See generally id.* subpart OOOO.

[58] 81 Fed. Reg. 35898 (June 3, 2016); *see also* 82 Fed. Reg. 16331, 16332 (Apr. 4, 2017).

Many challengers sought judicial review of the 2012 and 2016 standards.[59] And as with the litigation challenging the power sector standards, there were States and other interested stakeholders who likewise sought to defend the standards. The reviewing court has generally consolidated the challenges to the separate standards.[60] Petitioners in the case have brought statutory and record-based challenges, including: whether EPA can directly regulate methane emissions pursuant to Clean Air Act section 111; and whether EPA lawfully expanded the scope of oil and natural gas sources subject to the standards.[61] Defenders of the standards have argued that EPA has duty to regulate harmful emissions—which include methane— from oil and natural gas operations, and that the standards fall squarely within the types of standards courts have long upheld under section 111 (and are based on measures that have been in place and working in Colorado and Wyoming).

President Trump's "Energy Independence" order also specifically directed EPA to review the 2016 expansion of standards applicable to oil and natural gas operations.[62] EPA again asked the court to hold the consolidated legal challenges to both sets of rules in abeyance, and

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[59] *See generally* State of West Virginia v. EPA, Case No. 16-1264 (D.C. Cir.) (2016 standards); American Petroleum Inst. v. EPA, Case No. 13-1108 (D.C. Cir.) (2012 standards).

[60] Order, *American Petroleum Inst.*, Case No. 13-1108 (Jan. 4, 2017).

[61] Pet'rs' Mot. to Govern Further Proceedings, State of North Dakota v. EPA, Case No. 16-1242 (D.C. Cir. Oct. 21, 2016); Pet'r State of North Dakota's Statement of Issues to be Raised, *North Dakota*, Case No. 16-1242 (Aug. 22, 2016).

[62] Exec. Order No. 13,783, at § 7, 82 Fed. Reg. at 16096.

announced its review.[63] The court granted EPA's motion to hold the cases in abeyance.[64] The cases are still on hold, and EPA continues to review the 2016 standards as required under the "Energy Independence" order and in response to the administrative reconsideration petitions.[65]

Although the cases are on hold, the regulations remain effective. For example, the effective date of the 2016 standards was August 2, 2016, and the compliance deadline for regulated entities to conduct an initial monitoring survey to identify leaks by June 3, 2017.[66] Two days after that deadline, EPA published a notice of reconsideration and a partial, 90-day stay of (among other requirements) the initial monitoring survey requirement in the *Federal Register*.[67] In response to legal challenges filed by environmental organizations and a coalition of States, a month later, the United States Court of Appeals for the District of Columbia Circuit held that the 90-day stay was unauthorized under the Clean Air Act and was thus unreasonable, and summarily vacated it.[68] Separately, EPA has published a notice of proposed rulemaking announcing its intention to extend the stay of the compliance dates for two years and to "look

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[63] 82 Fed. Reg. at 16332, Notice of Exec. Order and Mot. to Hold Cases in Abeyance, *American Petroleum Inst.*, Case No. 13-1108 (Apr. 7, 2017).

[64] Order, *American Petroleum Inst.*, Case No. 13-1108 (May 18, 2017).

[65] EPA's Status Report, *American Petroleum Inst.*, Case No. 13-1108 (Nov. 21, 2017).

[66] 40 C.F.R. § 60.5397a(f).

[67] 82 Fed. Reg. 25730 (June 5, 2017). EPA also issued the stay for standards of performance for pneumatic pumps at well sites, and the requirements for certification by a professional engineer. *Id.* at 25732.

[68] Clean Air Council v. Pruitt, 862 F.3d 1, 8 (D.C. Cir. 2017).

broadly" at the 2016 standards during the reconsideration proceeding.[69] Recently, EPA issued a "notice of data availability" that introduced supplemental legal theories that EPA claims as support for the two-year stay of the compliance dates.[70]

In 2016, EPA also began the process of promulgating existing-sources standards for oil and natural gas operations. At the outset, EPA issued a two-part information collection request to more than 15,000 owners and operators of all oil and natural gas facilities.[71] After receiving numerous requests for extensions and under the new administration, EPA withdrew the information collection request in early 2017 and absolved request-recipients from any obligation to respond.[72]

Whether EPA can take up this issue again may turn on the courts' resolution, if any, of one of the questions presented in the Clean Power Plan litigation. Specifically, the courts may consider whether to uphold EPA's interpretation that it can regulate pollutants from a source

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[69] 82 Fed. Reg. 27645 (June 16, 2017).

[70] 82 Fed. Reg. 51788 (Nov. 8, 2017).

[71] 81 Fed. Reg. 35763, 35764 (June 3, 2016); *see also* "Information Collection Request Supporting Statement," (Nov. 9, 2016), https://www.epa.gov/sites/production/files/2016-11/documents/oil-natural-gas-icr-supporting-statement-epa-icr-2548-01.pdf.

[72] "Background on the Information Request for the Oil and Natural Gas Industry" (2017), https://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-industry/background-information-request-oil-and.

category under Clean Air Act section 111(d) when it already regulates that same source category under Act section 112.[73] Section 111(d) says:

> [EPA] shall prescribe regulations … under which each State shall submit to [EPA] a plan which … establishes standards of performance for any *existing source* for any air pollutant … which is *not … emitted from a source category* which is regulated under [42 U.S.C. §] 7412 ….[74]

There is a dispute regarding whether section 111(d) prohibits EPA from regulating the same *categories of sources* regulated in the hazardous air pollutant standards program in section 112,[75] or only prohibits EPA from regulating the same *pollutants* under section 111(d) as are regulated under section 112.[76] EPA has argued that the "pollutant-specific" interpretation of 111(d) is a reasonable construction of the statute, and that Congress originally intended to enact this latter interpretation of section 111(d), but just made a mistake when it actually codified the law.[77]

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[73] *See* State and Mun. Resp't-Intervenors' Opp'n to Mot. to Hold Proceeding in Abeyance, *West Virginia*, Case No. 15-1363, at 13 (Apr. 5, 2017).

[74] 42 U.S.C. § 7411(d)(1)(A) (emphasis added).

[75] *See* Am. Elec. Power Co. v. Connecticut, 564 U.S. 410, 424 n.7 (2011); Appl. by 29 States and State Agencies for Immediate Stay of Final Agency Action during Pendency of Pets. for Review, *West Virginia*, Case No. 15A773, 7-8 (Jan. 26, 2016).

[76] *See, e.g.*, Appl. by 29 States and State Agencies for Immediate Stay of Final Agency Action during Pendency of Pets. for Review, *West Virginia*, Case No. 15A773, 33-36 (Jan. 26, 2016).

[77] *See id.* at 35-36.

[6] Ozone Levels in the West

In 1970, Congress amended the Clean Air Act to centralize the process for setting nationally applicable air-quality standards.[78] In furtherance of that goal, Congress directed EPA to establish national ambient air quality standards (NAAQS) for various "criteria" pollutants.[79] EPA must establish "primary" NAAQS at a level "requisite to protect the public health" with "an adequate margin of safety."[80] Congress then required EPA to review those NAAQS every five years.[81] Pursuant to the five-year review, EPA must make such revisions to the NAAQS as it determines may be appropriate to accurately reflect the latest scientific knowledge and protect the public health with an adequate margin of safety.[82]

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[78] Clean Air Act Amendments of 1970, Pub. L. No. 91-604, § 4(a), 84 Stat. 1676, 1678-80 (1970).

[79] 42 U.S.C. § 7409. With respect to the "criteria" pollutants, Congress directed the EPA Administrator to identify and list "air pollutants" that "in his judgment, may reasonably be anticipated to endanger public health and welfare" and whose "presence … in the ambient air results from numerous or diverse mobile or stationary sources" and to issue air quality criteria for those pollutants. 42 U.S.C. § 7408(a)-(b). The air quality "criteria" for each pollutant must "accurately reflect the latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on public health or welfare which may be expected from the presence of such pollutant in the ambient air, in varying quantities." *Id.* § 7408(a)(2).

[80] *Id.* § 7409(b)(1).

[81] *Id.* § 7409(d)(1).

[82] *Id.*

Ozone is one of the criteria pollutants. According to an EPA science assessment from 2013, a causal relationship exists between short-term ozone exposure and respiratory-system effects, and a causal relationship likely exists between long-term ozone exposure and a broad range of respiratory effects; moreover, causal relationships likely exist between short-term ozone exposures and both total mortality and cardiovascular effects.[83] In the western United States, there are oil and gas and mining operations located or potentially located in areas that fail to attain the ozone NAAQS and stakeholders in those locations must come up with corrective plans to reduce emissions and help to restore air quality. These plans can include, for example, imposing stringent permitting requirements. Moreover, some studies have found that ozone levels in the western United States are sensitive to both transported ozone from the eastern Pacific and naturally occurring background levels.[84] EPA has acknowledged the potential for transport-related issues for western States, and EPA believes that there may be geographically specific factors to consider in evaluating interstate ozone pollution transport in those States.[85]

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[83] 80 Fed. Reg. 65292, 65302 (Oct. 26, 2015).

[84] *E.g.*, Huang, M., K. W. Bowman, G. R. Carmichael, M. Lee, T. Chai, S. N. Spak, D. K. Henze, A. S. Darmenov, and A. M. da Silva (2015), Improved western U.S. background ozone estimates via constraining nonlocal and local source contributions using Aura TES and OMI observations, J. Geophys. Res. Atmos., 120, doi:10.1002/2014JD022993.

[85] 81 Fed. Reg. 74504, 74523 (Oct. 26, 2016).

In 1997, EPA set the NAAQS for ozone at 80 parts per billion (ppb).[86] EPA lowered the standard from 80 ppb to 75 ppb in 2008, and began its Clean Air Act-required review shortly thereafter. Many parties challenged the 75 ppb standard and, after the Obama administration took office, EPA asked for and received an abeyance so that the Obama administration could review the 75 ppb standard.[87] Eighteen months later, EPA decided it could wrap its reconsideration into the ongoing statutory review, and the court proceeded to address the legal challenges. The court ultimately upheld the 75 ppb standard in 2013.[88]

EPA completed its Clean Air Act-required review and reconsideration of the 75 ppb standard in 2015, and decided to lower the ozone NAAQS farther from 75 ppb to 70 ppb.[89] EPA's decision to establish a standard of 70 ppb fell at the upper (least protective) end recommended by the agency's independent scientific advisors, the Clean Air Scientific Advisory Council, which had recommended that the agency establish standards between 60 and 70 ppb.[90] Numerous parties challenged the 70 ppb standard, and the merits briefing ended in the fall of 2016. Petitioners have questioned whether EPA had a sufficient administrative record to lower

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[86] 62 Fed. Reg. 38856, 38894-95 (July 18, 1997) (setting the 80-ppb NAAQS) (to be codified as 40 C.F.R. § 50.10(a)); 44 Fed. Reg. 8202, 8220 (Feb. 8, 1979) (changing "photochemical oxidants" to "ozone") (to be codified as 40 C.F.R. § 50.9(a)).

[87] Order, Mississippi v. EPA, Case No. 08-1200 (D.C. Cir. Mar. 19, 2009).

[88] Mississippi v. EPA, 744 F.3d 1334 (D.C. Cir. 2013). The court upheld the "primary standard," which is the 75 ppb standard that protects public health, but remanded the "secondary standard," which protects public welfare.

[89] 80 Fed. Reg. 65292 (Oct. 26, 2015).

[90] *E.g.*, 80 Fed. Reg. at 65321-22 (describing CASAC Ozone Review Panel letter to EPA).

the NAAQS from 75 ppb to 70 ppb and whether EPA's determination that a revision is "appropriate" must include a feasibility assessment.[91] The court set oral argument for April 19, 2017.

During that time, EPA officials under the Trump administration began reviewing the 70 ppb standard.[92] Pursuant to an EPA request, the court has since removed the litigation from its oral-argument schedule and is holding it in abeyance.[93] Moreover, EPA has decided to extend the amount of time it will take to make area designations. The designation process, which reflects a colloquy between the States and EPA to determine which areas across the country meet or exceed the new standards, provides the public with air quality information and allows state-level air-quality officials to begin planning for any potentially necessary measures to restore health air quality. EPA's reason for extending the deadline was so that it could reevaluate "complex issues" including "the role of background ozone levels [and] appropriately accounting

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[91] Pet'rs' Non-Binding Statement of Issues, State of Texas v. EPA, Case No. 15-1494 (D.C. Cir. Feb. 3, 2016); Pub. Health and Envtl. Pet'rs' Non-Binding Statement of Issues, Murray Energy Corp. v. EPA, Case No. 15-1385 (D.C. Cir. Jan. 27, 2016); Pet'rs' Non-Binding Statement of Issues to be Raised, *Chambers of Commerce of the United States of America v. EPA*, Case No. 15-1491 (D.C. Cir. Jan. 22, 2016); Statement of Issues to be Raised, *Murray Energy Corp.*, Case No. 15-1385 (Nov. 30, 2015).

[92] Resp't EPA's Mot. to Continue Oral Arg., *Murray Energy Corp.*, Case No. 15-1385 (Apr. 7, 2017).

[93] Order, *Murray Energy Corp.*, Case No. 15-1385 (Apr. 11, 2017).

for international transport."[94] However, the Clean Air Act allows for such extensions only where "the Administrator has insufficient information to promulgate the designations."[95] On August 1, 2017, environmental groups and fifteen States filed a lawsuit against EPA, alleging that the delay in implementing ozone pollution standards finalized in 2015 was illegal and inconsistent with the statutory basis the Administrator cited for his action.[96] On August 10, 2017, EPA issued a withdrawal of the extension of deadline for promulgating designations.[97] However, in October 2017, EPA missed the deadline for making the designations and subsequently promulgated designations for only those areas around the country that meet the 2015 standard. That partial action, however, left as "undesignated" all areas that exceed the 2015 standard. Numerous States and health and environmental organizations have challenged the Administrator's failure to satisfy the statutory duty to designate the undesignated areas. In the meantime, EPA has stated that it continues to "work closely with the [S]tates to work through the designation process for

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[94] Letter from Adm'r Scott Pruitt (EPA) to The Hon. Doug Ducey, Governor of Arizona, at 1 (June 6, 2017). EPA cites 42 U.S.C. § 7407(d)(1)(B)(i) in support of the extension of time, which says that although EPA must make "attainment" designations within two years of promulgating a new NAAQS, it may extend the deadline "for up to one year in the event the Administrator has insufficient information to promulgate the designations." Here, EPA would extend the deadline from October 2017 to October 2018.

[95] 42 U.S.C. § 7407(d)(1)(B)(i).

[96] *State of New York et al. v. United States Environmental Protection Agency and Scott Pruitt*, Case No. 17-1185 (D.C. Cir. Aug. 1, 2017).

[97] EPA, 40 CFR § 81, *Withdrawal of Extension of Deadline for Promulgating Designations for the 2015 Ozone National Ambient Air Quality Standards* (Aug. 10, 2017).

the 2015 ozone standard."[98] On December 20, 2017, EPA transmitted 120-day letters to several States, notifying them of intended designations for the remaining areas.[99]

[7] BLM Venting and Flaring Rule

During oil production, operators sometimes vent or flare associated gas if they cannot capture the gas for sale or use on-site. Under the Obama administration, EPA was not alone in targeting air emissions from oil and natural gas operations. In 2016, BLM also promulgated a "Venting and Flaring Rule" to reduce the "waste" of natural gas and limit methane emissions at production facilities.[100]

EPA typically is the federal agency that regulates air emissions, and EPA generally has congressional authority to regulate air emissions under the Clean Air Act. However, BLM has regulated venting and flaring to prevent the waste of federal and Indian natural gas and, therefore, to increase royalties to the government since 1979.[101] Measures that reduce the waste

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[98] John Siciliano, WASHINGTON EXAMINER, *EPA says it's working with states after missing deadline for ozone rule*, http://www.washingtonexaminer.com/epa-says-its-working-with-states-after-missing-deadline-for-ozone-rule/article/2636427 (Oct. 3, 2017).

[99] EPA, EPA Responses to Certain State Designation Recommendations for the 2015 Ozone National Ambient Air Quality Standards: Notice of Availability and Public Comment Period (Dec. 21, 2017), https://www.epa.gov/sites/production/files/2017-12/documents/120-day_ozone_frn_noa.pdf (pre-publication version submitted for publication in the *Federal Register*).

[100] 81 Fed. Reg. 83008 (Nov. 18, 2016).

[101] *See* Order on Mots. for Prelim. Inj., Western Energy Alliance v. Jewell, Case No. 16-280, at 3-5 (D. Wyo. Jan. 16, 2017).

of natural gas, *e.g.*, by capturing the gas, would necessarily also reduce air pollution. In 2016, in response to several governmental oversight reports suggesting BLM's existing regulations were not effective and needed to be modernized, BLM determined that it could use its authority to prevent waste per the Mineral Leasing Act (MLA) and its authorities under several other statutes, including the Federal Lands Policy and Management Act, to promulgate the Venting and Flaring Rule.[102] The Rule prohibits venting on onshore federal and Indian oil and natural gas leases except in certain limited situations such as emergencies or when flaring the gas is technically infeasible.[103] The Rule also requires operators to measure and to report the amount of gas vented or flared above 50 million cubic feet per day, and inspect equipment for leaks twice a year and timely repair any leaks found.[104] It also requires that operators update equipment and minimize gas lost from storage vessels.[105] Although the Rule went into effect on January 17, 2017, many of the Rule's requirements, including those related to gas capture, reporting on vented and flared gas volumes, pneumatic controller equipment, pneumatic diaphragm pumps, storage vessels, and leak detection and repair, were to be phased in over time to allow operators time to come into compliance.[106] These phased-in requirements would not become operative until January 17, 2018.

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[102] 81 Fed. Reg. at 83019; *see also* 30 U.S.C. § 225.

[103] 43 C.F.R. § 3179.6.

[104] *Id.* §§ 3179.9 & 3179.301-304.

[105] *Id.* §§ 3179.201-204.

[106] 81 Fed. Reg. at 83023-24, 83033; *see also* 43 C.F.R. §§ 3179.7, 3179.9, 3179.201-.203, 3179.301-.305.

States and industry groups challenged the Venting and Flaring Rule in 2016.[107] Other States and stakeholder groups likewise intervened in defense of the Rule. The question at issue is whether BLM promulgated the Rule, or at least certain provisions of the Rule, to prevent waste, which is within BLM's authority, or to protect air quality, which is within EPA's and the States' authority.[108] In 2017, a court denied the challengers' request to enjoin the Rule preliminarily, and Congress voted not to consider nullifying the Rule under the Congressional Review Act.[109] On January 17, 2017, the Rule went into effect. However, President Trump's "Energy Independence" order required the Secretary of the Interior to review the Rule, and, based on that review, the DOI stated that it would suspend, revise or rescind the Rule.[110]

On June 15, 2017, BLM issued a notice in the *Federal Register* that it would postpone the compliance dates for certain sections of the Rule pursuant to section 705 of the APA, which provides, among other things, that when an agency finds that justice so requires, it may postpone

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[107] *See, e.g.*, Pet for Review of Final Agency Action, *Western Energy Alliance*, Case No. 16-280 (Nov. 15, 2016).

[108] Order on Mots. for Prelim. Inj., *Western Energy Alliance*, Case No. 16-280, at 15-17 (Jan. 16, 2017).

[109] "U.S. Senate, Roll Call Vote 115th Congress – 1st Session, Vote Number 125" (2017), https://www.senate.gov/legislative/LIS/roll_call_lists/roll_call_vote_cfm.cfm?congress=115&session=1&vote=00125; Order on Mots. for Prelim. Inj., *Western Energy Alliance*, Case No. 16-280 (Jan. 16, 2017).

[110] Exec. Order No. 13,783, at § 7(b)(iv), 82 Fed. Reg. at 16097; "Interior Statement on Venting and Flaring Rule Vote" (May 10, 2017), https://www.doi.gov/pressreleases/interior-statement-venting-and-flaring-rule-vote.

the effective date of action taken by it, pending judicial review.[111] BLM sought to postpone those sections of the Rule with compliance dates of January 17, 2018.[112] However, in October, a court vacated the postponement notice as unauthorized an arbitrary because section 705 does not permit suspension of already-effective standards, and faulting the Secretary for failing to conduct a notice and comment rulemaking and assess the impacts of the suspension.[113] The decision put the provisions requiring compliance in January 2018 back on track, including existing-source leak detection and repair, existing storage-tank control requirements, pneumatic controller retrofits, pneumatic pump controls and gas capture limits. The court's ruling was nearly simultaneous with a new BLM proposal to suspend or delay the forthcoming requirements contained in the Venting and Flaring Rule until January 17, 2019, which the agency finalized on December 8, 2017.[114]

As of late December 2017, BLM has drafted, but not published, a proposed "revised" rule that would rescind certain provisions of Venting and Flaring Rule and substantially revise others.[115] Meanwhile, the States of California and New Mexico and numerous citizen and Tribal

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[111] 5 U.S.C. § 705.

[112] *Id.*

[113] California v. United States Bureau of Land Mgmt., No. 17-CV-03804-EDL, 2017 WL 4416409, at *14 (N.D. Cal. Oct. 4, 2017).

[114] 82 Fed. Reg. 46458 (Oct. 5, 2017); 82 Fed. Reg. 585050 (Dec. 8, 2017).

[115] Joint Motion to Stay, *Western Energy Alliance*, Case No. 16-280, at 2 (Dec. 26, 2017).

groups have challenged the December 8, 2017 "suspension rule" in litigation filed in the United States District Court for the Northern District of California.[116]

[8] NEPA and Greenhouse Gases

A decade ago, the Supreme Court issued the landmark *Massachusetts v. EPA* decision, which has served as the foundation for modern regulatory battles over greenhouse gases.[117] Since then, the federal regulation of air emissions associated with climate change and bigger-picture climate-change concerns have pervaded planning and review of mining and oil and natural gas projects in the western United States through NEPA.

Congress enacted NEPA in 1970 to require federal agencies to prepare detailed statements showing that they had reviewed the environmental impacts of and alternatives to "major Federal actions significantly affecting the quality of the human environment."[118] The Council on Environmental Quality helps agencies implement their NEPA duties, and the Council has considered issuing guidance to federal agencies regarding how to address greenhouse gases since around the time of the *Massachusetts v. EPA* decision. In 2016, the Council finally issued official guidance regarding *how* to consider greenhouse gas emissions and climate change in NEPA review.[119] The guidance was not a regulation, and did not carry force of law.[120]

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[116] *See* Complaint for Dec. & Inj. Relief, California v. U.S. Bureau of Land Mgmt., No. 3:17-cv-07186 (N.D. Cal. Dec. 19, 2017); Sierra Club v. Zinke, No. 3:17-cv-07187 (N.D. Cal. Dec. 19, 2017).

[117] *See* Massachusetts v. EPA, 549 U.S. 497 (2007).

[118] 42 U.S.C. § 4332(C).

[119] Council on Environmental Quality, Memorandum for Heads of Federal Departments and Agencies, "Final Guidance for Federal Departments and Agencies on Consideration of

However, some stakeholders expressed concerns that the guidance would add another layer of complex analysis and cause project delays.[121] Against this backdrop, President Trump's "Energy Independence" order revoked the Council's guidance, and the Council promptly withdrew it.[122] Nevertheless, several court opinions post-dating the withdrawal demonstrate that issues associated with greenhouse gases and climate change could—and, on a case-by-case basis, *will*—continue to play important roles in matters governed by NEPA.[123]

Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews" (Aug. 1, 2016); 81 Fed. Reg. 51866 (Aug. 5, 2016).

[120] 81 Fed. Reg. at 51866.

[121] *See, e.g.*, Pet'r's Opening Br., WildEarth Guardians v. Zinke, Case No. 16-167 (D. Wyo. Apr. 21, 2017) (alleging that federal agencies had violated NEPA by authorizing mining without assessing greenhouse gas impacts and citing the Council guidance in support); Am. Compl., WildEarth Guardians v. Jewell, Case No. 16-605 (D.N.M. July 8, 2016) (suing DOI for "chronic failure" to address greenhouse gas impacts of coal mining "throughout the Rocky Mountain West"); Western Energy Alliance, Executive Summary, "Economic Impacts of Oil & Gas Development on Federal lands in the West" (Apr. 2012), https://www.westernenergyalliance.org/wp-content/uploads/2012/05/Final-Combined-ES-Econ-Impacts-of-OG-Dev-on-Fed-Lands-in-the-West.pdf.

[122] Exec. Order No. 13,783, at § 3(c), 82 Fed. Reg. at 16094; 82 Fed. Reg. 16576 (Apr. 5, 2017).

[123] *See* WildEarth Guardians v. United States Bureau of Land Mgmt., 870 F.3d 1222 (10th Cir. 2017) (holding that BLM engaged in arbitrary and capricious action during its alternatives analysis under NEPA when it issued coal leases on the unsupported assumption that there would be no consequential reduction in coal use, and thus environmental impacts from greenhouse gas

§ 3.Perspectives on the Changing Landscape

[1] An Industry Perspective

The summary above highlights the regulatory uncertainty the regulated oil and gas community faces during the early days of the Trump administration. For Industry, this uncertainty is problematic. On the one hand, reduced regulatory burden potentially benefits a company's bottom-line. On the other hand, uncertainties created by litigation may necessitate conservative advice. The Trump administration's aggressive agency actions, driven by policies

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emissions, if it took no action to issue such leases); Sierra Club v. Fed. Energy Regulatory Comm'n, 867 F.3d 1357 (D.C. Cir. 2017) (holding that FERC's environmental impact statement for three pipelines did not contain enough information on the greenhouse-gas emissions that would result as reasonably foreseeable indirect effects from burning the gas that the pipelines would carry); Sierra Club v. United States Dep't of Energy, 867 F.3d 189 (D.C. Cir. 2017) (holding that the Department of Energy sufficiently examined the reasonably foreseeable indirect effects of LNG exports, including increased greenhouse gas emissions resulting from greater natural gas production for export, in approving an LNG-export application); Montana Envtl. Info. Ctr. v. U.S. Office of Surface Mining, No. CV 15-106-M-DWM, 2017 WL 3480262 (D. Mont. Aug. 14, 2017), *amended in part, adhered to in part sub nom.* Montana Envtl. Info. Ctr. v. United States Office of Surface Mining, No. CV 15-106-M-DWM, 2017 WL 5047901 (D. Mont. Nov. 3, 2017) (holding that Office of Surface Mining and Enforcement's environmental assessment in support of approving a lessor's application for a mining-plan modification to expand a federal coal lease at an underground coal mine violated NEPA by quantifying socioeconomic *benefits* of mine expansion while failing to quantify greenhouse-gas related costs when a tool was available to do so).

in stark contrast to the previous administration's policies with respect to oil and gas operations, may be overturned, and the original rule revived. What then?

President Trump's "Energy Independence" Executive Order directs agencies to review arguably any regulation, order, guidance document or policy applicable to industries developing or using domestic energy resources.[124] In response and as detailed above, EPA has begun its process of reviewing, rescinding and amending regulations in furtherance of the order. Quite expectedly, EPA's actions have been met by litigation. To expand on one such example raised above, EPA attempted to provide Industry relief via an interim delay as it more broadly reconsiders New Source Performance Standard, Subpart OOOOa.[125] This "fix" delayed a facility monitoring compliance date by ninety days, and a court shortly thereafter overturned EPA's delay.[126] The result – those companies delaying compliance program implementation are now out of compliance, and the untimely date of monitoring must be included in the following annual report.[127] For compliance date delays, the best advice may be to comply with the more stringent date rather than to rely on the action surviving certain litigation.

Time is early in the Trump administration. When agency actions go beyond delaying compliance dates to more substantive amendments or even wholesale revocation, litigation is a certainty. As legal battles play out, Industry must evaluate independently the basis and support for each agency action. Where agencies push the limits of legal authority, companies face tough

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[124] *See* Exec. Order No. 13,783, at §§ 1(c) & 2, 82 Fed. Reg. 16093 (Mar. 31, 2017).

[125] 82 Fed. Reg. 25730 (June 5, 2017). In § 2[5], the authors refer to Subpart OOOOa as the "2016 standards."

[126] Clean Air Council v. Pruitt, 862 F.3d 1, 8 (D.C. Cir. 2017).

[127] *See* 40 C.F.R. § 60.5420a(b)(7)(i).

decisions. Fewer compliance obligations drive down operational costs and potential enforcement risk and are, for obvious reasons, viewed favorably by company management. A subsequently court-reversed agency action, however, may result in retroactive compliance obligations and potential noncompliance for a company following the agency's lead.

Notwithstanding the current climate in the federal government, state governments will continue to impact company operations much as before the 2016 election. For example, Colorado recently promulgated rules to implement EPA's oil and gas control technique guidelines (CTGs) despite rumors of EPA's intent to revoke the CTGs. Colorado Department of Public Health and Environment representatives made clear in stakeholder meetings that the Department intended to promulgate rules similar to the CTGs regardless of EPA's ultimate action, citing the need for more emissions reductions in the State's ozone nonattainment area. Following the Colorado Air Quality Control Commission's rule adoption in November 2017, EPA provided notice of, and requested comment on, potentially withdrawing the CTGs *in toto*.[128] This example demonstrates that local concerns will be addressed by state-level regulatory efforts during the Trump administration, independent of federal action.

In addition to governmental impacts to company operations, shareholders and voluntary company efforts will continue to drive more environmentally friendly operations. In recent years, shareholders have increasingly valued environmental stewardship. In response, many companies have implemented voluntary emissions reduction measures. For example, in

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[128] *Notice of Proposed Withdrawal of the Final Control Techniques Guidelines for the Oil and Natural Gas Industry*, OFFICE OF MGMT. & BUDGET, https://www.reginfo.gov/public/jsp/EO/eoDashboard.jsp (select "RIN: 2060-AT76" hyperlink) (last visited Jan. 2, 2018).

December 2017, 26 companies announced the beginning of an Environmental Partnership focused on methane and volatile organic compound emissions reductions through voluntary measures.[129] The market's demand for environmentally friendly practices is likely to result in more such partnerships as companies respond to market forces.

The Trump administration is likely to significantly impact the federal landscape, at least in the near-term. The courts, however, will ultimately limit the scope of the impact, and almost one year into the Trump administration, the 2020 landscape is obscured by legal uncertainty. Whatever happens with this Administration, I believe one thing is certain, the oil and gas industry will continue developing more environmentally friendly operations in response to market demands and state governmental action.

[2] An NGO Perspective

Changes in administration are normally accompanied by policy changes. In the past, those policy shifts have certainly reflected different administrations' priorities—with varying outcomes and approaches to protecting public health and the environment. While the relative merits of those approaches can be debated, they have largely adhered to the same basic norms. In many ways, the current administration's approach to environmental issues has diverged sharply from these past practices. And so, while it is important to consider how administrative-

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[129] AMERICAN PETROLEUM INSTITUTE, http://www.api.org/ (under "News" select "Natural Gas, Oil Industry Launch Environmental Partnership to Accelerate Reductions in Methane, VOCs," which is also located at http://www.api.org/news-policy-and-issues/news/2017/12/04/natural-gas-oil-environmental-partnership-accelerate-reductions-methane-vocs (last visited Jan. 3, 2018); the webpage for The Environmental Partnership homepage is located at https://theenvironmentalpartnership.org/ (last visited Jan. 3, 2018).

law principles may constrain the Trump administration's efforts to weaken or rescind core environmental safeguards, it is equally—if not more—important to recognize the ways in which these efforts challenge the fundamental and bipartisan underpinnings of environmental protection.

For example, EPA has almost exclusively focused its efforts on removing health and environmental protections.[130] Often, these deregulatory measures have been taken after closed meetings with the affected industries, with no or minimal public notice and comment, and with no consideration given to the impacts these actions will have for human health. These actions have been the subject of litigation, and court decisions have underscored both the importance of public input and the importance that agency actions be grounded in the administrative record and consistent with their statutory mandates.

Prominent examples include the administration's efforts to suspend standards related to the oil and natural gas sector—encompassing EPA standards for new and modified sources and BLM standards to prevent the waste of natural gas, both discussed earlier in this paper. Both of these actions were taken without notice or public input, and in both, the courts found fault in the agencies' decision to circumvent these legally required procedures.[131] Similarly, both actions

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[130] Coral Davenport, THE NEW YORK TIMES, *Counseled by Industry, Not Staff, EPA Chief Is Off to a Blazing Start* (July 1, 2017).

[131] *See* California v. United States Bureau of Land Mgmt., No. 17-CV-03804-EDL, 2017 WL 4416409, at *10 (N.D. Cal. Oct. 4, 2017) ("The value of notice and comment prior to repeal of a final rule is that it ensures that an agency will not undo all that it accomplished through its rulemaking without giving all parties an opportunity to comment on the wisdom of repeal.") (quoting Consumer Energy Council of Am. v. Fed. Energy Regulatory Comm'n, 673 F.2d 425,

entirely subordinated interests related to public health and the environment to those of regulated industry. Indeed, neither EPA nor BLM even considered the impacts their reversals would have on the public—both of which would have allowed substantial emissions to persist. For example, EPA's suspension would have allowed 18,000 new or modified wells to avoid taking steps to detect and repair potentially leaking equipment. And these features have been replicated across numerous other EPA actions, from the agency's decision to delay ozone designations[132] to EPA's action to delay critical updates to accident prevention and chemical safety standards.[133]

In addition to these specific actions, the agency has also taken deeply concerning steps to undermine scientific integrity. These include actions to remove qualified scientists from serving on the agency's Scientific Advisory Board and efforts to undermine the scientifically documented harms associated with pollutants, including both climate-destabilizing pollution and health-harming pollution. The Administrator has likewise sought to undermine EPA's institutional capacity, including proposed budget cuts that would reduce EPA funding by 31 percent and eliminate nearly 50 percent of the agency's programs.[134] Taken together, these

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446 (D.C. Cir. 1982), *aff'd sub nom.* Process Gas Consumers Grp. v. Consumer Energy Council of Am., 463 U.S. 1216 (1983); Clean Air Council v. Pruitt, 862 F.3d 1 (D.C. Cir. 2017).

[132] Extension of Deadline for Promulgating Designations for the 2017 Ozone National Ambient Air Quality Standards, 82 Fed. Reg. 29246 (June 28, 2017).

[133] EPA, Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act; Further Delay of Effective Date, 82 Fed. Reg. 27133 (June 14, 2017).

[134] FY 2018: EPA Budget in Brief, EPA, Publication Number: EPA-190-K-17-001 (May 2017) (available at https://www.epa.gov/sites/production/files/2017-05/documents/fy-2018-budget-in-brief.pdf).

actions represent an attack on EPA's time-tested and bipartisan approach to protecting public health and the environment, and it is critical that EPA return to the core values that have guided the agency to ensure that it can effectively address the serious threats to human health and the environment that we face going forward.

While actions at the federal level have been deeply concerning, state and local governments have taken steps to protect the health of their citizens. Colorado's recent updates to strengthen methane and VOC requirements for the oil and gas sector serve as a great example of collaborative work across diverse stakeholders—including industry and environmental interests—resulting in standards that effectively minimize pollution.[135] Those standards also include explicit pathways to incentive innovation in monitoring technologies—technologies that could deliver even greater pollution reductions at lower costs. These smart policy approaches to integrating advanced pollution control technologies create potential win-win solutions, and my hope is that these innovative approaches can serve as models for action at the federal level.

[3] A Regulator's Perspective

There are many changes both announced and expected that may affect the near term regulatory landscape for the oil and natural gas industry. These will be contentious and the subject of protracted court actions. This debate is important, but it is less central to the long term than may immediately be evident.

During the course of a long career in environmental regulation, I have talked with many representatives of a wide variety of industries. Substantial companies that have existed for years and decades, and expect to prosper for decades more, do not plan on three-year horizons. They look ahead 10 years or 20 years or more, because they know that their business success depends

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[135] 5 Colo. Code Regs. § 1000, *et seq.*

on such long-term outlooks. Most of the industry leaders I have talked to, including in oil and gas, want their government to be fair and reasonable, but above all business leaders value certainty and a level playing field. Abrupt changes in any direction are disruptive of thought out business plans. Even mid-course shifts to de-regulate are challenging for forward looking businesses, because they create uncertainty, favor the companies that cut corners and disadvantage the companies that have invested in sensible long term measures.

Oil and gas companies that look ahead understand that their business could be dramatically affected if it turns out that less responsible actions by some producers are shown to have significant public health impacts. And they know that even the perception that such impacts occur could cause legislative bodies to impose severe restrictions; the so-called "social license to operate" is every bit as necessary as the legally grounded actual license. At the same time, any company that operates in the global market—as oil and gas producers do—knows that the world is focused on reducing climate forcing pollution, and that excess methane emissions could ultimately make their business plan unsustainable.

One does not have to look far to find evidence of this business reality. ExxonMobil and its subsidiary XTO Energy recently announced a methane reduction program from unconventional oil and gas.[136] API and The Environmental Partnership have launched an initiative to reduce volatile organic compound emissions and methane that includes 26 natural gas and oil producers.[137]

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[136] EXXONMOBIL, http://corporate.exxonmobil.com/ (select "More topics" hyperlink, then select "Methane emissions reduction program") (last visited Dec. 11, 2017).

[137] *See* https://theenvironmentalpartnership.org/, discussed in § 3[1].

Regulators also operate in both worlds. They recognize that the surge in domestic energy production has brought the country many economic, security and pollution reduction advantages. At the same time, it is ultimately government's responsibility to ensure that these advantages not come at the cost of clean air and water for the many communities that host energy production and transport facilities.

So while there is certainly much to disagree about, as the plethora of litigation so clearly shows, the area of agreement is broader than is commonly believed. And just as a technological revolution has increased business opportunity in oil and gas, so can innovations in regulatory strategies advance the mutual interest in allowing responsible operations while protecting the health of affected communities. Monitoring and control technologies have advanced at a fantastic rate in recent years and show tremendous promise for solutions that are cost effective. Gigantic leaps in information technology also make possible new strategies that would have seemed impossible just 10 years ago. That's just what we already know; there is also hope for disruptive technologies yet to come that will make it easier and cheaper to control the undesirable effects of energy production.

Here's an example. The FLIR camera, which has gained such widespread use in recent years, allows for ready visual identification of leaks that previously were very hard to detect.[138] This technology has made it possible to easily identify leaks of volatile organic compounds that might otherwise have gone unnoticed. Work is being done in multiple places to develop lower cost methods to readily spot leaks, such as the Methane Detectors Challenge, a partnership between oil and gas companies, U.S.-based technology developers, the Environmental Defense

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[138] *See, e.g.*, YOUTUBE, https://www.youtube.com/watch?v=YZlnV3o4TRk (last visited Dec. 11, 2017).

Fund and other experts that aims to develop and test affordable methane monitoring technologies that would help oil and gas companies to detect and fix methane leaks in real time.[139] As monitoring technologies get more accurate, smaller, more mobile and lower cost, new strategies for reducing pollution will become possible.

Information technologies are also developing at an astonishing pace. It is now commonplace for monitoring results to be transmitted in real time to a central location via cell phone technology, making quick detection and response possible. Data analytics tools can also be brought to bear on spotting, and predicting, which facilities are likely to experience the most serious problems. Such predictive analytics, which today can be applied to huge amounts of information, show promise both for industry and for government as a means of effectively—and cost-effectively—anticipating problems and solving them before the pollution is serious.

An essential element of figuring out which new approaches work best, and are most cost-effective, will be rigorous field testing. Government will need to know if the new strategies actually do cut pollution, and will need hard evidence about costs and effectiveness to decide what approaches make the most sense. Industry wants to know what really works too; if there are costs associated with new strategies, companies want to be sure that the investments are worth it. Field verification isn't just important to inform regulatory work; it is also an essential part of information for the public whose lives are affected. Rigorous, independent testing of the new strategies is indispensable in a dialog with citizens, who are rightly concerned with the health of their families and communities and are understandably suspicious of information that comes from people with an economic interest.

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[139] ENVIRONMENTAL DEFENSE FUND, https://www.edf.org/methane-detectors-challenge (last visited Dec. 11, 2017).

While the disputes that are currently raging about regulation in the oil and gas industry continue, progress can be made by greater attention to the overlap of interests among industry, government and the public, and the promise of better answers that new technologies make possible. Industry leaders, NGOs and government have already embarked on the search for these innovative solutions. Despite what may be said in litigation and in political debate, as domestic energy development grows, we all have a stake in making sure it's done responsibly.

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ROCKY MOUNTAIN
MINERAL LAW FOUNDATION

The Changing Regulatory and Legal Landscape of Air Quality and Climate Change Under the Trump Administration

Clay Taylor, Whiting Petroleum Corporation
Peter Zalzal, Environmental Defense Fund
Cynthia Giles, University of Chicago Energy & Environment Lab
Ivan London, Bryan Cave LLP

February 6, 2018

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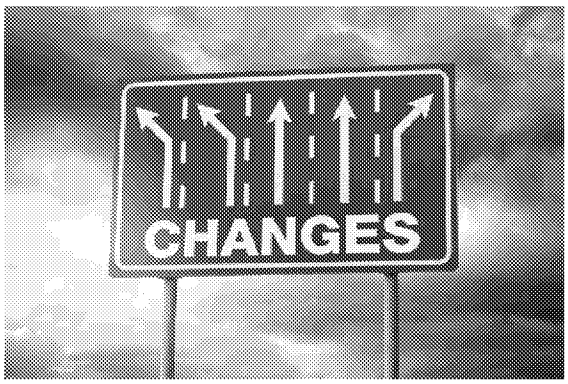
WHITING

RMMLF Air Quality Institute

February 6, 2018

Summary

- The Changing Landscape
- Perspectives



Congressional Review Act

- Congressional review of recently promulgated rules
- Venting and Flaring rule not considered

Energy Independence Order

- Executive Order on Promoting Energy Independence and Economic Growth
- Review of all existing regulations
- Revoked Obama era GHG actions
- Directed EPA review of Clean Power Plan and other GHG rules
- Withdrew social cost of carbon documents and Disbanded IWG
- EPA review of NSPS OOOOa
- BLM review of oil and gas regulations

Power Plant GHG Regulations

- Clean Power Plan
  - 2016 SCOTUS stay
  - October 2017 EPA proposal to repeal
- New Source Performance Standards
  - Under EPA review

New Source Performance Standards

- NSPS TTTT (GHG for Electric Generating Units)
- NSPS OOOO/OOOOa (upstream oil and gas sources)

Oil and Gas Information Collection Request

- Supportive of 111(d) existing sources proposal
- Two parts
- Withdrawn in early 2017

Ozone NAAQS

- 2015 Ozone NAAQS – 75 to 70 ppb
- October 2017 designations

BLM Venting and Flaring

- Waste prevention
- Implementation delays

Once In, Always In Policy

- Section 112 Major Source
- 1995 Seitz Memorandum
- January 2018 Wehrum Memorandum
- Foreshadows rulemaking

Industry Perspective

Source: https://www.ishn.com

NYSE: WLL

Thank You

Clay Taylor
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303-390-4900

NYSE: WLL

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U.S. Climate and Air Quality Policy Under the Trump Administration

RMMLF Air Quality Institute

Peter Zalzal
February 6, 2018

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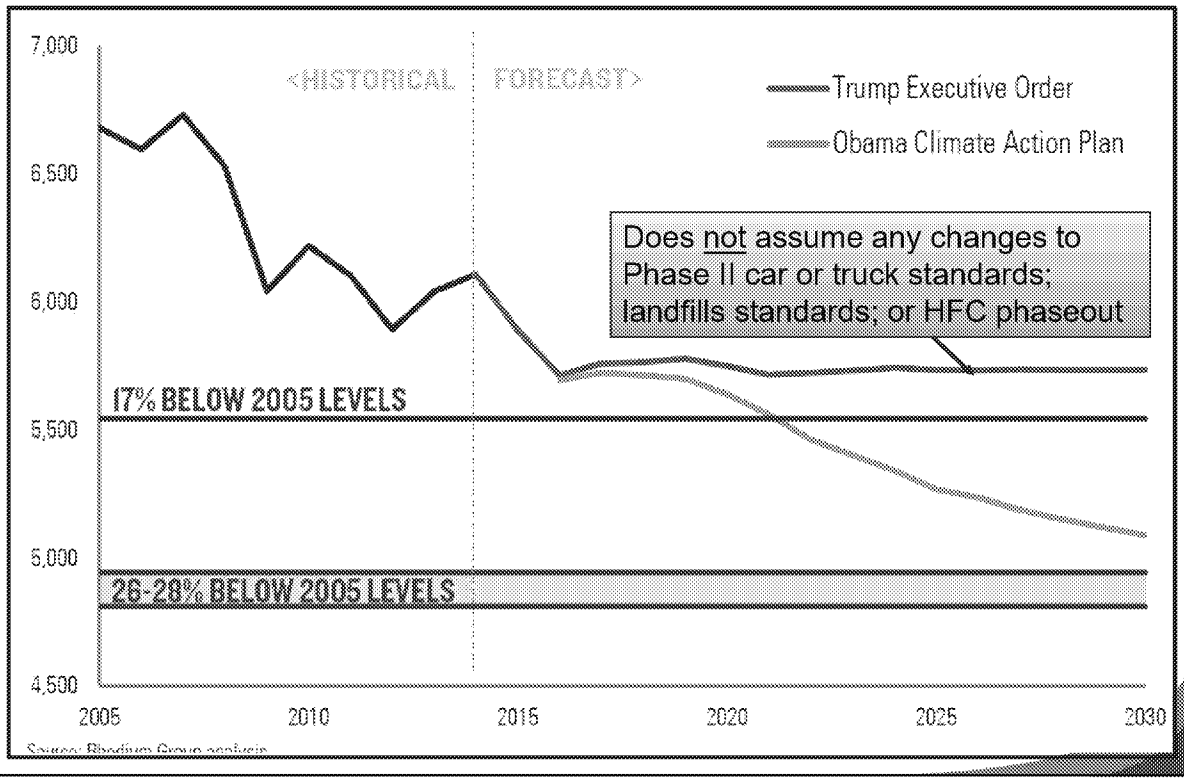
Finding the ways that work

Overview

- Impacts of Trump Administration policies
- Foundations for continued progress at a time of federal retrenchment

Climate and health protections at stake



Climate and health protections at stake

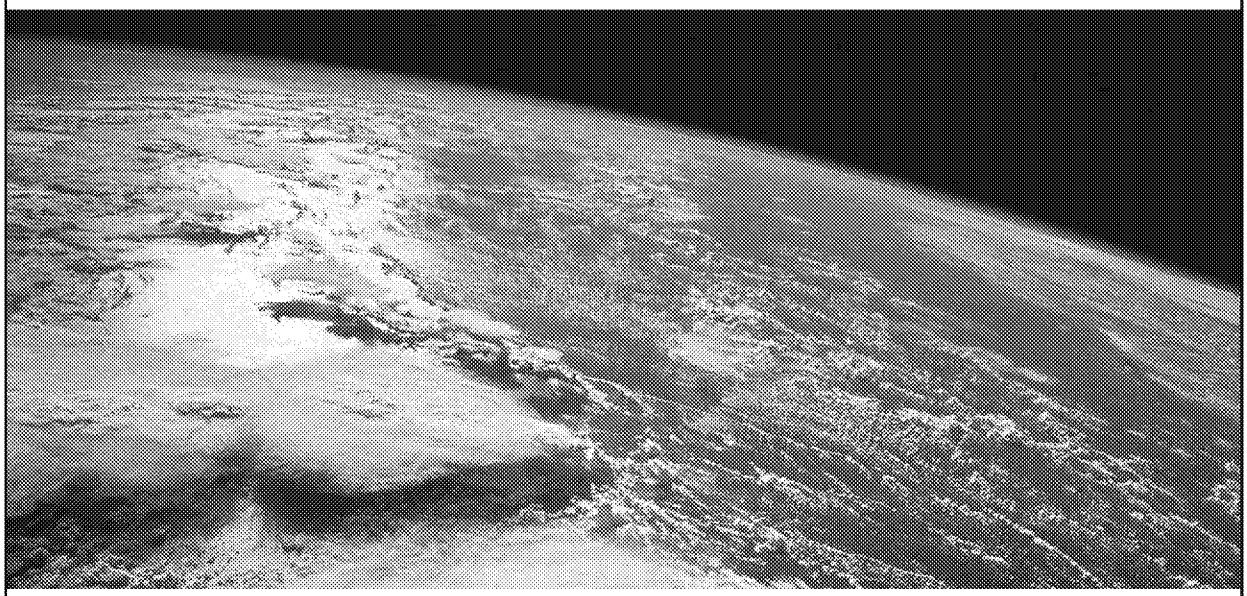
Protection	Date	Expected Reductions	Status
Clean Cars II	2012	271 MMT in 2030	EPA reconsidering standards for MY2021-2025
Clean Trucks II	2015	127 MMT by 2035	EPA reconsidering trailer and glider kit standards
HFC Phase Down	2015	54-65 MMT in 2025	Vacated in *Mexichem Fluor v. EPA*, No. 15-1328 (D.C. Cir. 2017)
Clean Power Plan	2015	376 MMT in 2030	EPA proposal to repeal
CO2 NSPS	2015	Uncertain	Under review
Oil & Gas NSPS	2016	16-40 MMT in 2025*	90-day stay vacated; EPA finalizing further two-year stay
Landfill NSPS & EG	2016	11-29 MMT in 2025*	90-day stay elapsed; proposed stay pending
Venting & Flaring Rule (BLM)	2016	6-15 MMT per year*	Section 705 stay vacated; one-year stay finalized, subject to legal challenge.

* Range reflects 20-yr and 100-yr GWP for methane from Fifth Assessment Report of IPCC

Foundations for Continued Progress

- ✓Development of advanced technologies
  - ✓ Methane Detectors Challenge
  - ✓ Stanford / EDF Mobile Monitoring Challenge
- ✓Subnational actions
- ✓Market forces and corporate commitments

Thank you



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Making Progress on O&G Air Emissions

20

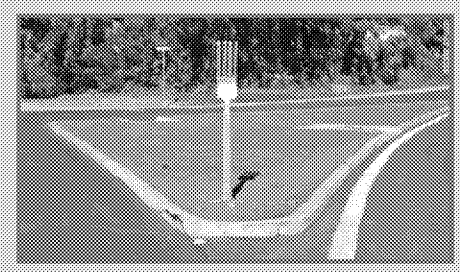
RMMLF Air Quality Institute
Cynthia Giles
February 6, 2018

What O&G companies tell regulators

21

What they need:

- Long planning horizon
- Certainty
- Level playing field
- Social license to operate



What they don't want:

- Abrupt changes
  - Disruptive for planning
  - Favor less responsible companies
- Bad actors that damage industry's reputation

What's ahead?

22

Pollution reduction

Concern about health impacts is driving demand for better pollution controls.

Climate change

Businesses and governments around the globe are pushing for energy sources with lower climate forcing pollution.

Big overlap of interests

23

Government, industry, NGOs all want to

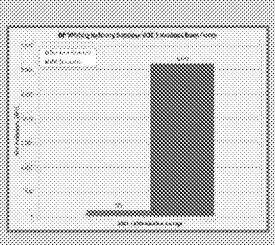
- Protect public health and reduce pollution
- Plan for longer term
- Achieve a level playing field, so that
  - Firms that cut corners don't give the industry a bad name
  - Responsible companies not at a competitive disadvantage

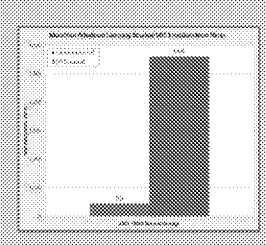
Three encouraging trends....

First: Advanced monitoring technologies

24

- Real-time monitoring
- Fence line monitoring
- Remote sensing
- Community monitoring



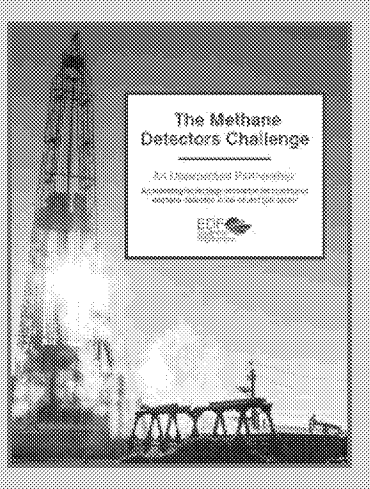


Monitoring better, cheaper, more mobile

25

FLIR cameras

Rapid innovation



Second: Advances in IT

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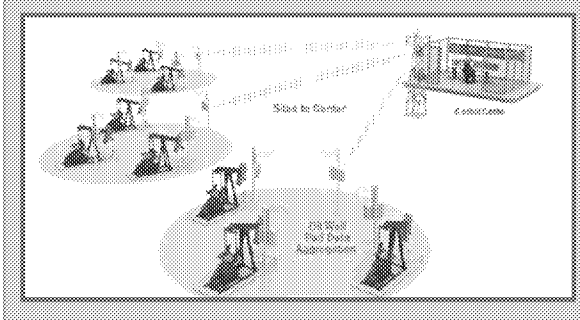
Real time continuous data



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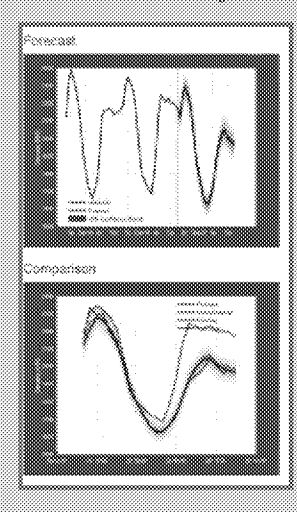
Data analytics

- Data mining
- Predictive analytics



Third: Industry leaders being proactive

27

WASHINGTON, December 5, 2017 – America's natural gas and oil industry today announced a landmark partnership to accelerate improvements to environmental performance in operations across the country. Focused initially on reducing methane and volatile organic compound (VOC) emissions, the Environmental Partnership includes 26 natural gas and oil producers, who produce a significant portion of American energy resources. Participating companies will begin implementing the voluntary program starting January 1, 2018.

Independent evaluation essential

28

Field experiments to test new approaches

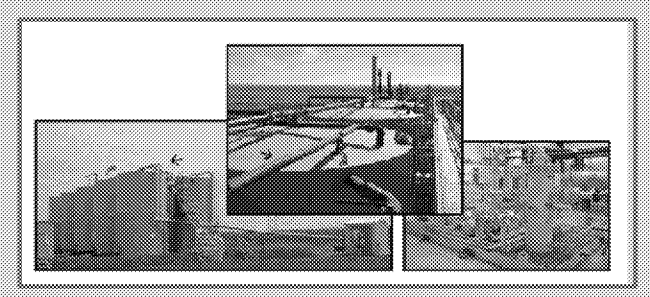
- Try innovation in the field
- Rigorous evidence about what works
- Valid research design
- Financial independence of researchers

Citizens demand independent analysis

Progress is possible

29

- Big overlap of interests: government, industry, NGOs, academics and the public
- New technologies make new, cost effective solutions possible
- Develop innovative strategies, test in the field



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Legal Impacts of Increased Public Availability of Air Quality Data

Adam Babich, Professor of Law
Tulane University School of Law
New Orleans, LA

Paper 2

Legal Impacts of Increased Public Availability of Air Quality Data

Adam Babich*

Introduction

Before the 1990 Amendments kicked in, the Clean Air Act was notoriously difficult for citizens to enforce.[1] Emission monitoring was sporadic and—at least from an ordinary person's perspective—expensive.[2] Monitoring technology is advancing, however, providing opportunities for more extensive and accurate self-monitoring and self-reporting, and also for monitoring by individuals and non-governmental organizations.[3] Thus, for example, a focus on monitoring and publicly accessible

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* Professor of Law, Tulane Law School

[1] *See* Randy E. Brogdon, Mack McGuffey, *Recent Trends in CAA Citizen Suits: Managing Risk in the Serengeti*, NAT. RESOURCES & ENV'T, Winter 2006, at 17 ("Before the CAA Amendments, citizen suits could only be brought for ongoing violations, could only achieve injunctive relief, and could only be proved through expensive, fairly infrequent stack tests or other U.S. Environmental Protection Agency (EPA) reference methods. These barriers seemed to persuade most environmental groups to stalk other game, namely those sources regulated by the Clean Water Act (CWA), under which self-monitoring and reporting requirements provided readily available evidence of violations.").

[2] *See* Emily G. Snyder *et al.*, *The Changing Paradigm of Air Pollution Monitoring*, ENVIRON. SCI. TECHNOL. 11369, 11369 (2013) ("Historically, approaches for monitoring air pollution generally use expensive, complex, stationary equipment, which limits who collects data, why data are collected, and how data are accessed. This paradigm is changing with the materialization of lower-cost, easy-to-use, portable air pollution monitors (sensors) that provide high-time resolution data in near real-time.") (footnotes omitted); Cynthia Giles, *Next Generation Compliance*, THE ENVTL. FORUM, Sept-Oct. 2013, at 24 ("It used to be hard to figure out how much pollution was coming from a stack or a pipe. Expensive tests done once a year or less often created huge uncertainty about how much pollution there really was, and whether that amount varied much from day to day."); Ricardo Piedrahita *et al.*, *The Next Generation of Low-Cost Personal Air Quality Sensors*, 7 ATMOS. MEAS. TECH. 3325, 3334 (2014) ("With help from monitoring agencies and citizen scientists, detailed ground-level pollutant maps will one day help track sources, reduce the population's exposure, and improve our knowledge of emissions as well as fate for each species.").

[3] Cynthia Giles, *supra* note 2 at 24:

> Monitoring devices are becoming more accurate, more mobile, and cheaper, all of which are contributing to a revolution in how we find and fix pollution problems. Through the use of these technologies, some companies have discovered that they greatly underestimated their

The views expressed in this paper are solely those of the author (or authors).

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electronic reporting is part of EPA's "Next Generation Compliance" initiative.[4] EPA initiatives are subject to change, of course. But regardless of whether the agency sticks with the "Next Gen" approach, it is safe to predict that environmental quality monitoring data will continue to become less expensive to generate and, on balance, easier to obtain.[5] Over the long term, the result will be an increased need for consistent compliance to avoid government and citizen enforcement.[6] Advances in

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> pollution, sometimes by an order of magnitude. Actual measurements, as opposed to estimates, often show far higher emissions than we [*i.e.*, EPA], or the company, thought.

See also Lucas Satterlee, *Climate Drones: A New Tool for Oil and Gas Air Emission Monitoring*, 46 Envtl. L. Rep. News & Analysis 11069, 11079 (2016) ("Using drones to collect images, measurements, and other resource data offers immense opportunities for environmental groups to learn more about the extent of environmental problems and submit incriminating evidence to government officials.").

[4] *See* EPA Assistant Administrator Cynthia Giles, Memorandum, *Use of Next Generation Compliance Tools in Civil Enforcement Settlements* at 2 (Jan. 7, 2015) (stating that Next Gen compliance tools include "Advanced monitoring, including both point source emission/discharge monitoring and ambient monitoring (*e.g.*, fence-line monitoring of air pollution at the border of a facility) .... Electronic reporting, and Public accountability through increased transparency of compliance data"); *see also* EPA, *Next Generation Compliance: Strategic Plan 2014-2017* at 4 (Oct. 2014) (Advanced emissions/pollutant detection technology can help regulated entities, the government, and the public more easily find pollutant discharges, environmental conditions, and noncompliance."); Madison Condon, *Citizen Scientists, Data Transparency, and the Mining Industry*, NAT. RESOURCES & ENV'T, Fall 2017, at 24, 27 ("Two of the pillars of [EPA's] "Next Gen" compliance are (1) a shift toward electronic reporting, and (2) an increase in public access to monitoring data.").

[5] *See* Emily G. Snyder *et al.*, *supra* note 2 at 11373 ("Lower-cost and easy-to-use air pollution sensors provide citizens and communities with opportunities to monitor the local air quality that can directly impact their daily lives ....").

[6] The term "citizen" in this context is not completely accurate. *See* M. Isabel Medina, *Exploring the Use of the Word "Citizen" in Writings on the Fourth Amendment*, 83 IND. L.J. 1557, 1567 (2008) ("Substitution of the word 'citizen' for the word 'person' or 'individual' erects a barrier between classes of persons ...."). Environmental protection benefits not only citizens, but anyone who happens to reside in, or visit, the United States, as well as corporate, governmental and other interests. Antipollution laws' "citizen suit" provisions are not limited to citizens but generally authorize suits by any "person" with legal standing. *See* 42 U.S.C. § 7604(a). The term "citizen" or "American," however, can pack a rhetorical punch that the phrase "person having an interest" seems to lack. *See, e.g.*, 116 CONG. REC. 32,900, 32,901 (1970)

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technology will also present an opportunity to strengthen relationships with community members by backing up assertions of compliance with verifiable data.

Historically, Clean Air Act implementation has rested in part on the (often unspoken) assumption that extensive, direct monitoring of industrial emissions is too expensive to be practical. Thus, when responding to Congress' 1990 mandate for "enhanced monitoring,"[7] EPA explained that—although it "agree[d] with incorporating direct emissions and compliance monitoring where the technology is available and feasible, and promoting public disclosure of air pollution emissions information"—EPA believed it to be "technically unrealistic" to "impose such monitoring requirements across the board in the short term."[8] The agency did not think "such a broad, expensive, and technically complex objective" could "be accomplished through a single rulemaking at this time."[9] Thus, for example, EPA backed away from establishing "enhanced monitoring protocol requirements" for fugitive emissions,[10] and adopted an approach that "cost significantly less than" an earlier proposal.[11] Accordingly, emission data is still often based on estimates, or a combination of estimating methodology and parametric monitoring.[12]

To illustrate: In *St. Bernard Citizens for Environmental Quality v. Chalmette Refining, L.L.C.*, the permitting authority had based the defendant's permit limits for tank emissions on "a mathematical formula, known as the AP42 factors."[13] When EPA modified its AP-42 guidance to include consideration of the "temperature of the liquid in [those] tanks," the calculations showed exceedance of the permit limits.[14] Ultimately, a permit was issued, compliance documentation was submitted, and a court held a defendant liable for violations—all based on shifting estimates, without consideration of *any* direct measurements of emissions from the tanks at issue.[15] In

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(statement of Sen. Edward Muskie) ("This bill states that all Americans in all parts of the Nation should have clean air to breathe ....").

[7] 42 U.S.C. § 7414(a)(3).

[8] EPA, *Compliance Assurance Monitoring*, 62 Fed. Reg. 54,900, 54,904 (Oct. 22, 1997).

[9] *Id.*

[10] *Id.* at 54,920.

[11] *Id.* at 54,900.

[12] *See, e.g.*, EPA, *Emissions Estimation Protocol for Petroleum Refineries, Version 3* (April 2015)

[13] 399 F. Supp. 2d 726, 732 (E.D. La. 2005).

[14] *Id.*

[15] The Court noted:

> Defendant argues that these violations are ... an anomaly that has resulted from a clarification in the AP42 factors used to calculate benzene emissions. In essence, defendant argues that the clarified

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this example, the use of estimates cut against the refinery's operator.[16] More broadly, however, the example illustrates the circular logic involved when permit limits are calculated based on emission estimates, and compliance is determined based on the same estimating methodology. Too often, estimated emissions fail to explain ambient concentrations.[17] As technology for direct measurement of emissions and ambient

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> formula caused its emission numbers to go over permit limits even though the actual amount of benzene emitted would have satisfied its permit requirements under the old formula. Defendant has cited no authority for the proposition that plaintiffs may not sue under the Clean Air Act for permit violations that are reported because the method of calculating emissions has changed. Rather, the import of the relevant authority appears to be to the contrary, as courts regularly reject efforts by defendants to rationalize permit violations under federal environmental laws.

Id. at 735.

[16] In defense of the result in this case: When the permitting authority proposed to issue the permit for public comment, it presumably proposed an emission limit—not a list of parameters. Community members therefore had an opportunity to object to the permit based on that emission limit. These circumstances illustrate that a permit limit is a three-way commitment, between the regulator, the permittee, and the public. *See, e.g.,* Proffitt v. Lower Bucks County Joint Mun. Auth., No. 86-7220, 1987 WL 28350 (E.D. Pa. Dec. 16, 1987), *rev'd on other grounds*, 877 F.2d 57 (3d Cir. 1989) (A consent order could not lawfully modify Clean Water Act permit limits when "the proper regulatory steps were not taken to effectuate the modification. This determination recognizes the value of public participation in the NPDES permit program. The Court will not permit the [enforcement authority] and [the defendant] to contract that public participation away.").

[17] At least in some locations, the "SIP [i.e., state implementation plan] process has repeatedly failed to achieve attainment. Howard Latin, *Regulatory Failure, Administrative Incentives, and the New Clean Air Act*, 21 ENVTL. L. 1647, 1687 (1991). One explanation is that these plans are based on unreliable estimates of current emissions. For example, the U.S. Department of Commerce explained:

> During the 2000 Texas air quality field study (TexAQS2000), NOAA scientists discovered a major and previously unexpected factor that causes the Houston area to experience the highest ozone levels in the United States. Based on NOAA's discovery that leaks of reactive gases from the many petrochemical refineries in the area are a much larger factor in Houston's poor air quality than was previously expected, revisions were made to the state's air quality management plan.

https://www.esrl.noaa.gov/news/2006/texaqs/ (last visited January 28, 2017).

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concentrations of pollutants advances, such circular reasoning should become harder to maintain.

This paper reviews legal impacts of the increase in publicly available data about environmental quality. It focuses on (I) citizen enforcement authority, (II) the principle that any credible evidence may support enforcement, (III) citizen monitoring, (IV) aerial surveillance options available to citizen enforcers, (V) the requirement for monitoring sufficient to assure compliance, (VI) reporting obligations, (VII) monitoring pursuant to facility specific orders or agreements, and (VIII) emerging fenceline and ambient monitoring obligations. The bottom line? Be careful out there!

I. Congress granted ordinary citizens broad Clean Air Act enforcement authority.

Beginning with the Clean Air Act Amendments of 1970,[18] the Clean Air Act has provided for citizen enforcement.[19] The Act authorizes "any person" to file suit in federal court "against any person" who is violating or has repeatedly violated the Act.[20] This provision essentially allows ordinary citizens to step into the shoes of government enforcers—acting as "private attorneys general."[21] The Act's citizen suit provision reflects a congressional concern that governmental "initiative in seeking enforcement under the Clean Air Act has been restrained."[22] Congress thus offered citizens an opportunity "to participate in the effort to prevent and abate air pollution."[23] The D.C. Circuit held that the Act's legislative history reveals "a deliberate choice by Congress to widen citizen access to the courts, as a supplemental

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[18] Pub. L. No. 91-604, 84 Stat. 1676 (1970).

[19] 42 U.S.C. § 7604(a)

[20] Among other things, the provision allows lawsuits "against any person who proposes to construct or constructs any new or modified major emitting facility without a [required] permit 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." 42 U.S.C. § 7604(a).

[21] *See Bennett v. Spear*, 520 U.S. 154, 165 (1997) (discussing analogous citizen enforcement authority in the Endangered Species Act, 16 U.S.C. § 1540(g)(1)). In a dissenting opinion, Justice Scalia objected to "plac[ing] the immense power of suing to enforce the public laws in private hands." *Friends of the Earth, Inc. v. Laidlaw Envtl. Servs. (TOC), Inc.*, 528 U.S. 167, 215 (2000) (Scalia, J., dissenting).

[22] *See* Pennsylvania v. Del. Valley Citizens' Council for Clean Air, 478 U.S. 546, 560 (1986) (citations and internal quotation marks omitted).

[23] *Id.*

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and effective assurance that the Act would be implemented and enforced."[24] The federal appellate court for the Second Circuit held, "In enacting [the Clean Air Act's citizen enforcement provision], Congress made clear that citizen groups are not to be treated as nuisances or troublemakers but rather as welcomed participants in the vindication of environmental interests."[25]

Potentially available remedies include mandatory court orders,[26] civil penalties of up to $95,284 per day per violation,[27] and an award of attorney and expert witness fees.[28] Violators must pay civil penalties to the U.S. Treasury,[29] except that the court has discretion apply up to $100,000 in civil penalties to "beneficial mitigation projects which ... enhance the public health or the environment."[30]

There are, of course, limitations. Citizen enforcers must prove their "standing to sue."[31] Diligent state or federal prosecution in court precludes citizen enforcement

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[24] Natural Res. Def. Council, Inc. v. Train, 510 F.2d 692, 700 (D.C. Cir. 1974, as modified 1975).

[25] Friends of the Earth v. Carey, 535 F.2d 165, 172 (2d Cir. 1976); *see also Delaware Valley Citizens' Council for Clean Air*, 478 U.S. at 560 ("Congress ... urged the courts to 'recognize that in bringing legitimate actions under this section citizens would be performing a public service ....'") (citation omitted).

[26] 42 U.S.C. § 7604(a).

[27] *Id.* 42 U.S.C. § 7413(b) provides for maximum penalties of "$25,000 per day for each violation," but EPA adjusts this amount for inflation under amendments to the Federal Civil Penalties Inflation Adjustment Act of 1990. Pub. L. 114-74 (2015) (set out as a note under 28 U.S.C. § 2461). The current amount ($95,284) is set forth in 40 C.F.R. § 19.4. *See also* EPA, Civil Monetary Penalty Inflation Adjustment Rule, 82 Fed. Reg. 3633 (Jan. 12, 2017).

[28] 42 U.S.C. § 7604(d).

[29] *Id.* at § 7604(g)(1).

[30] *Id.* at § 7604(g)(2).

[31] An organization has "standing" to bring an environmental citizen suit "on behalf of its members when [the] members would otherwise have standing to sue in their own right, the interests at stake are germane to the organization's purpose, and neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit." Friends of the Earth, Inc. v. Laidlaw Envtl. Services (TOC), Inc., 528 U.S. 167, 181 (2000). Individual members have standing to sue when (1) threatened with "injury in fact" that is (2) "fairly traceable to the challenged action," and (3) "it is likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision." *Id.* at 180-81. In general, individuals prove injury by showing that "they use the affected area and are persons for whom the aesthetic and recreational values of the area will be lessened by the challenged activity." 528 U.S. at 183 (internal quotation marks and citation omitted).

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suits.[32] Government settlements may moot such suits.[33] The Clean Air Act provides for a "permit shield" which allows states to issue permits that, under appropriate circumstances, "provide that compliance with the permit shall be deemed compliance with other applicable provisions of [the Act] that relate to the permittee."[34] Citizen enforcement, however, remains a powerful tool.[35]

II. Publicly available air quality data may be "credible evidence" of permit or regulatory violations.

Before the 1990 Clean Air Act Amendments, defendants in Clean Air Act citizen suits had a fighting chance to limit evidence of violations to data from "reference test methods" that their permits or state regulations specified.[36] State-issued Clean Air Act regulations and permits often specified a particular method of determining compliance.[37] And, for example, in *United States v. Kaiser Steel Corp.*,

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[32] 42 U.S.C. § 7604(b)(1)(B).

[33] *See* Envtl. Conservation Org. v. City of Dallas, 529 F.3d 519, 531 (5th Cir. 2008) (holding that an EPA consent decree mooted a citizen suit); *but see* Louisiana Envtl. Action Network v. City of Baton Rouge, 677 F.3d 737, 745 (5th Cir. 2012) (holding that an EPA consent decree did not moot a *subsequently filed* citizen suit); *see also* Texans United for a Safe Econ. Educ. Fund v. Crown Cent. Petroleum Corp., 207 F.3d 789, 794 (5th Cir. 2000) (allowing a citizen suit to continue after a violator signed an Agreed Order with the state enforcement authority when summary judgment evidence supported the premise that the order "does not go far enough to ensure that Crown will not violate federal emissions standards in the future.")

[34] 42 U.S.C. § 7661c(f).

[35] *See, e.g.*, Env't Texas Citizen Lobby, Inc. v. ExxonMobil Corp., No. CV H-10-4969, 2017 WL 2331679, at 31 (S.D. Tex. Apr. 26, 2017) (awarding $19,951,278 in civil penalties after a remand in *Env't Texas Citizen Lobby, Inc. v. ExxonMobil Corp.*, 824 F.3d 507 (5th Cir. 2016).

[36] *See generally* Clean Air Implementation Project v. EPA, 150 F.3d 1200, 1205 (D.C. Cir. 1998).

[37] *See* Sierra Club v. Tennessee Valley Auth., 430 F.3d 1337, 1351 (11th Cir. 2005) ("The command is that only Method 9 data may be used to determine opacity violations, and that command governed until Alabama's credible evidence rule."); *see also*, Appalachian Power Co. v. EPA, 208 F.3d 1015, 1023 (D.C. Cir. 2000) (noting that for many petitioners "the applicable standard specifies EPA Method 9 (a visual observation method) as the compliance method." (internal quotation marks and citation omitted).

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the district court limited evidence for proving an opacity violation to such a method.[38] Rejecting this approach, U.S. District Court Judge Lewis T. Babcock explained:

> I am concerned that the owner or operator of the stationary source has no duty to permit the representative of the citizen group onto its premises. If I accept defendants' argument that only Method 9 observations may be used to prove violations of the Clean Air Act, it follows that the alleged violator is afforded a large measure of control over enforcement of the Act by citizens groups. The alleged violator can either deny access to the citizen group or it can permit the Method 9 inspection at a time when it can meet the emission standard. Such a result would be contrary to the Act's purpose and undermine congressional intent.[39]

In the 1990 Clean Air Act Amendments, Congress specified that a violation's duration could be "established by any credible evidence (including evidence other than the applicable test method)."[40] In 1997, EPA followed up with the "credible evidence rule" to remove "what some have construed to be a regulatory bar to the admission of non-reference test data to prove a violation of an emission standard."[41] EPA has explained, "a title V permit[42] may not preclude any entity, including the EPA, citizens or the state, from using any credible evidence to enforce emissions standards, limitations, conditions, or any other provision of a title V permit."[43] This rule, however, was not necessarily effective in every state until each state with a contrary rule amended its program to allow proof of a violation by any credible evidence.[44] Further, the D.C. Circuit left open potential defenses based on challenges

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[38] No. CV 82-2623-IH, 1984 WL 186690, at *4 (C.D. Cal. Feb. 8, 1984), *see also* ARNOLD W. REITZE JR. STATIONARY SOURCE AIR POLLUTION LAW 266 & nn.203-07 (ELI 2005).

[39] Sierra Club v. Pub. Serv. Co. of Colorado, 894 F. Supp. 1455, 1460 (D. Colo. 1995).

[40] 42 U.S.C. § 7413(e)(1).

[41] 62 Fed. Reg. 8314, 8315 (Feb. 24, 1997) (Rule codified, *inter alia*, at 40 C.F.R. § 51.212(c)).

[42] Title V of the Clean Air Act created a state-implemented federal operating permit program. 42 U.S.C. §§ 7661-7661f.

[43] EPA Order, *In re: Southwestern Electric Power Company H.W. Pirkey Power Plant Harrison County, Texas*, Petition No. V1-2014-01, 2016 WL 1664552, at 13 (Feb. 3, 2016) (citing EPA, *Compliance Assurance Monitoring*, 62 Fed. Reg. 54,900, 54,907-08 (Oct. 22, 1997)).

[44] *See* Sierra Club v. Tennessee Valley Auth., 430 F.3d at 1337, 1351 ("COMS [*i.e.*, continuous opacity monitor system] data cannot be used to determine whether pre-May 20, 1999 emissions violated the opacity limitation, at least not so far as Alabama's regulations are concerned.").

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to the rule in *Clean Air Implementation Project v. EPA*.[45] In that 1998 case, the court determined "it would be premature" to resolve the challengers' arguments that use of the rule "alters" the underlying standards and that the rule "illegally converts 'periodic' standards to 'continuous' ones."[46] As states have amended permits in light of the credible evidence rule, however, the utility of such arguments has presumably diminished (since, in general, an amended permit may legally alter applicable standards). Because the Clean Air Act limits the terms of permits to five years, states by now should have replaced every permit that was in place when the court decided *Clean Air Implementation Project*.[47]

To the extent that a state seeks to issue a Clean Air Act operating permit that flouts the "credible evidence rule," the Act empowers "any person" to petition EPA for an objection to the state-issued permit.[48] Assuming that the petition is timely and is based on objections raised during the state administrative process, the Act mandates that EPA "grant or deny such petition within 60 days after the petition is filed."[49]

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[45] 150 F.3d 1200, 1206 (D.C. Cir. 1998).

[46] *Id. at* 1205-06. *See* Robert M. Howard, Patricia Guerrero, Jason M. Ohta, *Test Methods Matter: Representative Sampling and Clean Air Act Test Methods Can Survive EPA's Credible Evidence Rule*, 25 J. ENVTL. L. & LITIG. 37, 53 (2010) ("Post-1997 Credible Evidence Rule Case Law Is Mixed for Industry and Enforcement.").

[47] 42 U.S.C. § 7661a(b)(5)(B) (providing that state programs must provide for issuance of permits "for a fixed term, not to exceed 5 years"). In the real world, Clean Air Act permits are often effective for somewhat longer than five years. 40 C.F.R. § 70.4(b)(10) requires that state Title V permit programs include:

> A requirement under State law that, if a timely and complete application for a permit renewal is submitted, consistent with § 70.5(a)(2), but the State has failed to issue or deny the renewal permit before the end of the term of the previous permit, then: (i) The permit shall not expire until the renewal permit has been issued or denied and any permit shield that may be granted pursuant to § 70.6(f) may extend beyond the original permit term until renewal; or (ii) All the terms and conditions of the permit including any permit shield that may be granted pursuant to § 70.6(f) shall remain in effect until the renewal permit has been issued or denied.

See David P. Novello, *The New Clean Air Act Operating Permit Program: EPA's Final Rules*, 23 Envtl. L. Rep. (Envtl. Law Inst.) 10080, 10085 (1993).

[48] 42 U.S.C. § 7661d(b)(2).

[49] *Id.* EPA seldom if ever complies with this deadline. *See* New York Pub. Interest Research Grp., Inc. v. Whitman, 214 F. Supp. 2d 1, 2 (D.D.C. 2002) ("While there can be no doubt that timely responses to citizen suits … further the public good, the Court is constrained in its ability to remedy the systemic problem that plaintiffs have identified [of EPA failing to respond within 60 days]"). Instead, citizens may sue EPA

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Further, EPA *must* object if the petitioner "demonstrates … that the permit is not in compliance with the [Act's] requirements."[50] If EPA fails to object, the petitioner (assuming he, she, or it has standing to sue) may appeal in the applicable U.S. Court of Appeals.[51] If EPA issues an objection, however, the permittee may *not* appeal (at least not immediately).[52] Once the state or EPA issues a permit that conforms to the objection, of course, the permittee would be able to appeal that permit.[53]

III. Citizen-gathered data may qualify as credible evidence.

As monitoring technology has improved, "citizen volunteer monitoring programs have become popular across North America."[54] For example, "Bucket brigades are campaigns in which local citizens living along the fence lines of industrial emitters use inexpensive bucket samplers, often provided by state or

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under 42 U.S.C. § 7604(a)(2) (after appropriate notice) for EPA's failure "to perform any act or duty under this chapter which is not discretionary," *i.e.*, failure to grant or deny the petition within 60 days. So far, EPA has usually negotiated a schedule for ruling on the petition. Generally, plaintiffs tend to agree to schedules longer than 60 days since 1) it would most likely take more than 60 days to obtain a district court judgment, and 2) it might be poor tactics to push EPA to decide before the agency has had time to analyze the petition. How this process will play out in the Trump administration is an open question. *See* E. Scott Pruitt, EPA Administrator, *Adhering to the Fundamental Principles of Due Process, Rule of Law, and Cooperative Federalism in Consent Decrees and Settlement Agreements* (Guidance to EPA officials) (Oct. 16, 2017) ("In the past, the U.S. Environmental Protection Agency has sought to resolve litigation through consent decrees and settlement agreements that appear to be the result of collusion with outside groups. … The days of this regulation through litigation are terminated."). Of course, an agreed-upon schedule for EPA to grant or deny a petition does not resolve the merits of the petition. If the citizens are unhappy with the substance of EPA's response, their remedy is to challenge that response in federal appellate court. 42 U.S.C. § 7661d(b)(2).

[50] *Id.*

[51] *Id.* ("Any denial of such petition shall be subject to judicial review under section 7607 of this title.").

[52] *Id.* at § 7661d(c) ("No objection shall be subject to judicial review until the Administrator takes final action to issue or deny a permit under this subsection"); *see also* Louisiana Dep't of Envtl. Quality v. EPA, 730 F.3d 446, 450 (5th Cir. 2013) (holding that the appellate court "lacks subject matter jurisdiction to review the [EPA] Objection").

[53] 42 U.S.C. § 7661d(c).

[54] Christine Overdevest & Brian Mayer, *Harnessing the Power of Information Through Community Monitoring: Insights from Social Science*, 86 TEX. L. REV. 1493, 1509 (2008)

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national environmental NGOs [*i.e.*, non-governmental organizations] and sometimes provided through EPA grants, to measure air quality near industrial operation sites."[55]

Given practicalities of data gathering, and the lack of citizen access to private industrial facilities, Bucket Brigade data generally are measurements of ambient concentrations, and thus will rarely offer direct proof of violation of emission limitations.[56] Such data could presumably be used in court, however, for a variety of purposes, including to support "standing to sue" arguments. Of course, ambient data may also be useful in choosing a focus for research into publicly available emission data. Moreover, some state implementation plans[57] may hold emitters directly liable for causing a violation of a National Ambient Air Quality Standard.[58] For example,

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[55] *Id.* at 1510. Reportedly:

> Bucket brigades were created in northern California in 1994 to gather information for a civil lawsuit following an industrial accident. Attorney Edward Masry [of *Erin Brockovich* fame] .... hired an engineering firm to create a low-cost air-quality monitoring system designed to provide accurate sampling. The engineering company reduced the cost of an air-quality monitoring device from $2,000 to $250, by using a common plastic bucket instead of a steel cylinder to hold a standard Tedlar air-sampling bag. Masry then gave these buckets to citizens who sampled around the refinery whenever they encountered unusual odors, vapors, or flares.

Id. at 1510–11.

[56] "Ambient air means that portion of the atmosphere, external to buildings, to which the general public has access." 40 C.F.R. § 50.1(e). In contrast, an emission limitation is "a requirement ... which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis." 42 U.S.C. § 7602(k). *See, e.g.,* Sierra Club v. EPA, 551 F.3d 1019, 1028 (D.C. Cir. 2008) (vacating an EPA provision for an exemption for "startups, shutdowns, and malfunctions" based on the definition of "emission limitation"). In general, National Ambient Air Quality Standards are not emission limitations that citizens may enforce. *See* Coalition Against Columbus Ctr. v. City of New York, 967 F.2d 764, 769 (2d Cir. 1992) ("A cornerstone of this Court's interpretation of the citizen suit provision is the principle that an air quality standard established under the Clean Air Act is not an 'emission standard or limitation.'") (citations omitted).

[57] EPA-approved state implementation plans (a/k/a "SIPS") are the primary mechanism for state implementation of the Clean Air Act. 42 U.S.C. § 7410.

[58] National Ambient Air Quality Standards (a/k/a NAAQS) are standards that EPA sets and revises to protect public health and welfare, 42 U.S.C. § 7409, from the effects of the six pollutants for which EPA has prepared air quality criteria (a/k/a "criteria pollutants") under 42 U.S.C. § 7408. Thus,

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the State of Louisiana's air quality regulations provide, "No person or group of persons shall allow particulate matter or gases to become airborne in amounts which cause the ambient air quality standards to be exceeded."[59]

Citizen-monitoring data can be a powerful organizing and political tool.[60] Sociology Professors Christine Overdevest and Brian Mayer report:

> Anne Rolfes, director of the Louisiana Bucket Brigade, remembers when sampler Dorothy Jenkins of New Sarpy, La., confronted a manager of Orion Refining: "That was one of the great moments of my life," says Rolfes. "He was so smug and rude, insisting that there wasn't a problem, and she just slammed her air sample results down on the table and said, 'Then why did you violate the state benzene standard?'" Ms. Rolfes also

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> [42 U.S.C. § 7410] requires states to develop and submit to the EPA a SIP to ensure that state air quality meets NAAQSs. These ambient standards currently address six criteria pollutants: Carbon monoxide, nitrogen dioxide, ozone, lead, particulate matter, and sulfur dioxide. Each federally-approved SIP protects air quality primarily by addressing air pollution at its point of origin through air pollution regulations and control strategies. The EPA approved SIP regulations and control strategies are federally enforceable.

EPA, *Preamble to Final Rule, Approval and Promulgation of Air Quality Implementation Plans; Texas*, 82 Fed. Reg. 29,426, 29,427 (June 29, 2017).

[59] La. Admin Code. tit. 33, pt. III, § 929.

[60] *See* National Advisory Council for Environmental Policy and Technology, *Environmental Protection Belongs to the Public: A Vision for Citizen Science at EPA*, EPA 219-R-16-001 (2016) ix ("Citizen science is much more than collecting data. It provides a way to … build an informed population that can advocate successfully for environmental protection, and more effectively protect human health and the environment."); Eric Biber, *The Problem of Environmental Monitoring*, 83 U. COLO. L. REV. 1, 58 (2011) ("Individual citizens in 'bucket brigades' use inexpensive technology to measure air quality in their community …. This monitoring can be a potent media and political tool that influences regulators or regulated industry."); Robert L. Glicksman *et. al., Technological Innovation, Data Analytics, and Environmental Enforcement*, 44 ECOLOGY L.Q. 41, 81 (2017) ("Because quality control over citizen science is unlikely to match an environmental agency's own information-gathering efforts, agencies have used data from nongovernmental sources as a signal warranting their own further inquiries into compliance status or ambient conditions."); Emily G. Snyder *et al.*, *supra* note 2 at 11373 ("As [citizens and communities] gather this information, they become more educated and informed about air quality in their community, which allows them to become more conversant on potential air quality issues and better positions them to develop community-based strategies to reduce air pollution exposures to protect their health.")

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> noted, "It changes a very vague complaint, like 'It smelled bad last week,' to 'You violated the state benzene standard.'[61] That's the beauty of it." Or as Denny Larson suggests, "Just by introducing that very scientific piece of data, facilities and agencies are now in the position where the only way to refute that data is to actually take a test, too." These comments illustrate the ways in which citizen activists seek to use the monitoring information to call firms and regulators to account.[62]

The Orion Refining situation described above resulted in a Clean Air Act citizen suit, but the plaintiffs based their Complaint in that matter on publicly available emission monitoring data rather than on citizen-gathered ambient air quality data.[63]

IV. Aerial surveillance may be available to help citizen enforcers uncover potential violations.

An August 4, 2013, Washington Post Sunday magazine cover proclaims, "Eye in the Sky—Warning to Environmental Evildoers: John Amos may be watching you." The article explains:

> Amos is, by many accounts, reshaping the postmodern environmental movement. He is among the first, if not the only, scientist to take the staggering array of satellite data that have accumulated over 40 years, turn it into maps with overlays of radar or aerial flyovers, then fan it out to environmental agencies, conservation nonprofit groups and grass-roots activists. This arms the little guys with the best data they've ever had to challenge oil, gas, mining and fishing corporations over how they're changing the planet.[64]

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[61] Louisiana has promulgated standards for "8-hour" and "annual" average concentrations of toxics in ambient air. La. Admin Code. tit. 33, pt. III, § 5112, tbl. 51.2.

[62] Christine Overdevest & Brian Mayer, *Harnessing the Power of Information Through Community Monitoring: Insights from Social Science*, 86 TEX. L. REV. 1493, 1513–14 (2008) (internal footnotes omitted) (citing Michelle Nijhuis, *Passing the Bucket*, GRIST, July 23, 2003, and Eliza Strickland, *To Clean the Air, Communities Grab a Bucket*, CHRISTIAN SCI. MONITOR, Apr. 1, 2004, at 14).

[63] *See* Complaint ¶¶ 20-27, Concerned Citizens of New Sarpy v. Orion Refining Corp., 2:01-cv-03704-AJM (filed Dec. 11, 2001), ECF No. 1. The case eventually settled. *See* Order of Dismissal Pursuant to Settlement, Concerned Citizens of New Sarpy v. Orion Refining Corp., 2:01-cv-03704-AJM (filed Dec. 30, 2002), ECF No. 104.

[64] Neely Tucker, *SkyTruth, The Environment and the Satellite Revolution*, WASH. POST MAGAZINE, Aug. 4, 2013.

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By analyzing satellite imagery, a group such as SkyTruth can discover environmental problems that a decade or so ago would likely have escaped notice. And as explained in 2013 by members of EPA's Offices of Research and Development, Air and Radiation, and Enforcement and Compliance Assurance, such groups can use social media to expand the power of their citizen science:

> While the concept of citizen science is not new, the movement has been growing due to the Internet and the use of hand-held devices such as cell phones with cameras. Citizen science activities take advantage of community-based participatory monitoring and "crowd sourcing" where many individuals voluntarily collect large amounts of data that is compiled and analyzed."[65]

Similarly, nonprofits such as Southwings offer potential citizen enforcers the opportunity to view potential pollution sources from aircraft.[66] A Clean Water Act citizen-enforcement lawsuit about spills from a coal-loading terminal into the Mississippi rested largely on aerial photography from such flights.[67] The case eventually settled.[68]

V. Major sources must conduct monitoring sufficient to assure compliance with permit terms and conditions.

In the 1990 Clean Air Act Amendments, Congress added the Title V operating permit program in part to allow "better tracking of compliance" with the law's requirements.[69] The drafters based this new program largely on "essential features of the Clean Water Act's permit program" which Congress believed had "successfully imposed pollution controls on large numbers of sources in a readily enforceable and administratively flexible manner."[70]

Among the essential features of the Clean Water Act's permit program is its reliance on self-monitoring and self-reporting of violations. For years, that program had generated data to fuel robust citizen enforcement.[71] In contrast, under the pre-1990 Clean Air Act, "in some cases, the source is not required under the SIP or other

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[65] Emily G. Snyder *et al.*, *supra* note 2 at 11373 (footnotes omitted).

[66] http://www.southwings.org.

[67] *See* Complaint ¶ 35, Gulf Restoration Network v. United Bulk Terminals Davant, LLC, No. 14-cv-00608-LMA-SS (filed March 18, 2014), ECF No. 1.

[68] Consent Decree, Gulf Restoration Network v. United Bulk Terminals Davant, LLC, No. 14-cv-00608-LMA-SS (filed Oct. 7, 2015), ECF No. 125.

[69] *See* SEN. REP. No. 101-228 (1990), *reprinted in* 1990 U.S.C.C.A.N. 3385, 3729.

[70] *Id.* at 3730.

[71] *See* Randy E. Brogdon, Mack McGuffey, *supra* note 1.

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Clean Air Act provisions to submit periodic compliance reports to EPA or the States. As a result, there is no ready way to identify the extent of a source's compliance and noncompliance."[72] Congress intended Title V to "enable the State, EPA, and the public to better determine the requirements to which the source is subject, and whether the source is meeting those requirements."[73] This would spark "[b]etter enforcement … for all air pollution requirements."[74]

The key Title V provision in this regard requires that "Each permit issued under this subchapter shall set forth inspection, entry, monitoring, compliance certification, and reporting requirements to assure compliance with the permit terms and conditions."[75] EPA implementation of this provision has had a tortured history.

First, under the Clinton administration, EPA interpreted 42 U.S.C. § 7661c(c) as requiring that "[a]ll title V permits must contain sufficient monitoring, including periodic monitoring, to assure compliance with the applicable requirements in the permit."[76] Thus, according to this (now superseded) guidance, "Periodic monitoring is required for each emission point at a source subject to title V of the Act that is subject to an applicable requirement, such as a Federal regulation or a SIP emission limitation."[77] Moreover, "Where the applicable requirement does not contain adequate monitoring, reporting, or record keeping to provide a reasonable assurance of compliance for the anticipated range of operations, periodic monitoring must be added to fulfill the requirements of 40 C.F.R. sections 70.6 and 71.6 [which implement 42 U.S.C. § 7661c]."[78]

In a 2000 case, *Appalachian Power Co. v. EPA,* the D.C. Circuit set aside this guidance, noting:

> The phenomenon we see in this case is familiar. Congress passes a broadly worded statute. The agency follows with regulations containing broad language, open-ended phrases, ambiguous standards and the like. Then as years pass, the agency issues circulars or guidance or memoranda, explaining, interpreting, defining and often expanding the commands in the regulations. One guidance document may yield

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[72] 1990 U.S.C.C.A.N. at 3730.

[73] *Id.*

[74] *Id.*

[75] 42 U.S.C. § 7661c(c).

[76] Eric V. Schaeffer, Director EPA Office of Regulatory Enforcement, *Periodic Monitoring Guidance for Title V Operating Permits Programs* 3 (Sept. 15, 1998).

[77] *Id.* at 5.

[78] *Id.* at 11.

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> another and then another and so on. Several words in a regulation may spawn hundreds of pages of text as the agency offers more and more detail regarding what its regulations demand of regulated entities. Law is made, without notice and comment, without public participation, and without publication in the Federal Register or the Code of Federal Regulations.[79]

EPA's guidance qualified as a regulatory amendment, in part because, "It commands, it requires, it orders, it dictates. ... Through the Guidance, EPA has given the States their 'marching orders' and EPA expects the States to fall in line ...."[80] The court vacated the guidance because of EPA's failure to comply "with the rulemaking procedures required by 42 U.S.C. § 7607(d)," *i.e.*, notice and comment.[81] Along the way, the D.C. Circuit seemed to doubt EPA's legal authority to force states to bolster the permitting requirements in Title V permits. "EPA's approach," the court noted, "raises serious issues, not the least of which is whether EPA possesses the authority it now purports to delegate [to the states]."[82] The court concluded that "State permitting authorities therefore may not, on the basis of EPA's Guidance or 40 C.F.R. § 70.6(a)(3)(i)(B), require in permits that the regulated source conduct more frequent monitoring of its emissions than that provided in the applicable State or federal standard, unless that standard requires no periodic testing, specifies no frequency, or requires only a one-time test."[83]

EPA—now under the George W. Bush administration—reversed course.[84] The agency issued a final rule to require that "title V permits contain monitoring required under applicable requirements" and that "such monitoring will constitute monitoring sufficient to assure compliance as required by the Act."[85] Again, however, EPA neglected to provide notice and an opportunity for public comment. In 2005, the D.C. Circuit vacated the new rule.[86]

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[79] 208 F.3d 1015, 1020 (D.C. Cir. 2000).

[80] *Id. at* 1023.

[81] *Id. at* 1028.

[82] *Id. at* 1026.

[83] *Id. at* 1028.

[84] EPA, *Revisions to Clarify the Scope of Certain Monitoring Requirements for Federal and State Operating Permit Programs*, 69 Fed. Reg. 3202 (Jan. 22, 2004).

[85] *Id. at* 3202.

[86] Envtl. Integrity Project v. EPA, 425 F.3d 992, 998 (D.C. Cir. 2005) ("EPA argues that ... its final interpretation was ... mentioned (albeit negatively) in [a] proposal .... [A logical outgrowth of the proposal] does not include the Agency's decision to

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In 2006, EPA tried again, this time providing notice and comment.[87] Now, however, the D.C. Circuit took a different view, limiting the reach of its prior *Appalachian Power* opinion to the issue of whether EPA had "follow[ed] proper procedures."[88] The court held that the Act unambiguously precluded EPA's new approach because "By its terms, [Title V's] mandate means that a monitoring requirement insufficient 'to assure compliance' with emission limits has no place in a permit unless and until it is supplemented by more rigorous standards."[89] The court explained, "EPA's about-face means that some permit programs currently in place do not comply with Title V because the agency failed to fix inadequate monitoring requirements before new permits issued, and prohibited state and local authorities from doing so."[90] The bottom line: "We read Title V to mean that somebody must fix these inadequate monitoring requirements."[91]

EPA has continued to object to state issued operating permits that fail to contain monitoring requirements sufficient to assure compliance.[92] Similarly, EPA has objected under Title V to "minor source"[93] permits that limit emissions to create

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repudiate its proposed interpretation and adopt its inverse. We therefore hold EPA's final rule violated the APA's notice-and-comment requirements.")

[87] EPA, *Final Rule Interpreting the Scope of Certain Monitoring Requirements for State and Federal Operating Permits Programs*, 71 Fed. Reg. 75,422 (Dec. 15, 2006).

[88] *See* Sierra Club v. EPA, 536 F.3d 673, 676 (D.C. Cir. 2008)

[89] *Id. at* 677.

[90] *Id.*

[91] *Id. at* 678. The court left "for another day the question of who wins when EPA and state and local permitting authorities conflict over whether a given requirement is sufficient 'to assure compliance because the question is not presented in this case.'" *Id. at* 678–79. *Alaska Dep't of Envtl. Conservation v. EPA* arguably answers that question, however, since it applied an "arbitrary or capricious" standard to review an EPA order overruling a state permitting decision, albeit a decision under the Act's "prevention of significant deterioration" program. 540 U.S. 461, 496–97 (2004).

[92] *See, e.g.*, EPA Order, *In re Piedmont Green Power, LLC, Barnesville, Lamar Cty., Georgia*, No 2015-2, 2016 WL 7489674, at 15 (Dec. 13, 2016); EPA Order, *In re Consolidated Environmental Management, Inc. – Nucor Steel St. James Parish*, Nos. VI-2010-05, VI, 2011-06 and VI-2012-07, 2014 WL 4292232, at 46-51 (Jan. 30, 2014).

[93] *See* Texas v. EPA, 690 F.3d 670 (5th Cir. 2012):

> Minor sources are facilities that emit less than a pre-identified amount, usually 100 tons per year, of a regulated contaminant after construction or modification. All SIPs must contain a Minor NSR [new source review] program, regardless of whether the area has achieved NAAQS. Understandably, Congress and the EPA have devoted much less

"synthetic minor sources"[94] when monitoring requirements are insufficient to render those limits enforceable as a practical matter.[95] And of course, citizens may use the Title V petition process discussed in Part II above to seek an EPA objection when state permits fail to include sufficient monitoring.[96]

VI. Monitoring reports that show violations are generally reported to public agencies and are accessible to the public.

Clean Air Act and other requirements provide for reports to regulatory agencies.[97] For example, 40 C.F.R. § 70.6 sets forth the minimum elements that each Title V permit "shall include." Accordingly, each such permit must require "[p]rompt reporting of deviations from permit requirements" including "probable cause of such deviations, and any corrective actions or preventive measures taken."[98] Operators must also submit compliance certifications that specify whether "compliance with the terms and conditions of the permit for the period covered by the certification ... was continuous or intermittent."[99] Compliance certifications "shall identify each deviation and ... also identify as possible exceptions to compliance any periods during which

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> attention to Minor NSR. The EPA's regulations of Minor NSR span only two pages of the Code of Federal Regulations.

Id. at 675.

[94] "Synthetic minor sources are those sources that have the potential to emit regulated NSR pollutants at or above the major source thresholds, but that have taken enforceable limitations to restrict their potential to emit below such thresholds." EPA. *Revisions to Public Notice Provisions in Clean Air Act Permitting Programs*, 81 Fed. Reg. 71,613, 71,627 n.32 (Oct. 18, 2016). NSR or "new source review" refers to analyses under the Clean Air Act's prevention of significant deterioration (a/k/a PSD) program (to protect air in "attainment areas" that already meets national ambient air quality standards), 42 U.S.C. §§ 7470-7492, or nonattainment new source review (a/k/a NNSR) program (to improve air quality in "nonattainment areas" that fail to meet such standards), 42 U.S.C. §§ 7501-7515. *See generally*, ARNOLD W. REITZE JR. STATIONARY SOURCE AIR POLLUTION LAW 159-224 (ELI 2005).

[95] *See, e.g.*, EPA Order, *In re Yuhuang Chemical Inc. Methanol Plant St. James Parish, Louisiana*, No. VI-2015-03, 2014 WL 4292232, at 16 (Aug. 31, 2016).

[96] *See* notes 48-53, *supra*, and accompanying text.

[97] *See generally*, Arnold W. Reitze, Jr. & Steven D. Schell, *Self-Monitoring and Self-Reporting of Routine Air Pollution Releases*, 24 Colum. J. Envtl. L. 63 (1999).

[98] 40 C.F.R. § 70.6(a)(3)(iii)(B). *See also*, EPA, *Clean Air Act Stationary Source Compliance Monitoring Strategy* (October 2016).

[99] 40 C.F.R. § 70.6(c)(5)(iii)(C).

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compliance is required and in which an excursion or exceedance … occurred."[100] These certifications are due at least annually.[101] Specific regulatory standards, for example for hazardous air pollutants, carry their own monitoring and reporting obligations.[102] EPA's state implementation plan requirements also mandate that state's require reports from major sources.[103] Further, other statutes command owners and operators to submit reports to regulatory agencies, where they are then available to the public. Examples are the Emergency Planning and Community Right to Know Act (EPCRA)[104] and the Comprehensive Environmental Response Compensation and Liability Act (CERCLA or Superfund).[105]

Under 42 U.S.C. § 7414, EPA developed its Compliance Assurance Monitoring (CAM) program.[106] CAM applies to an emission unit 1) at a major source, 2) if the unit uses a control device to achieve compliance with 3) an applicable emission standard, *and* 4) the unit has the potential to emit enough of the applicable pollutant to exceed the threshold for a source to be classified as a major source.[107] In general, CAM requires site-specific preparation of monitoring plans and, potentially, quality improvement plans.[108] CAM, of course, includes reporting and recordkeeping requirements.[109]

Emission monitoring reports can provide admissible and persuasive evidence of violations.[110]

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[100] *Id.*

[101] 40 C.F.R. § 70.6(c)(5)(i).

[102] *See, e.g.*, 40 C.F.R. § 63.7550 (setting forth reporting obligations with respect to National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters).

[103] *See, e.g.*, 40 C.F.R. § 51.165 (relating to new source review); 40 C.F.R. § 60.107 (Reporting and recordkeeping requirements for petroleum refineries, new sources); 40 C.F.R. § 61.275 (Periodic reporting requirements for owners and operators of Benzene Storage Vessels under the hazardous air pollutants program).

[104] *See, e.g.* 42 U.S.C. §§ 11004 (emergency notification), 11023 (toxic chemical release forms).

[105] 42 U.S.C. § 9603 (notification requirements respecting released substances).

[106] 40 C.F.R. pt. 64; *see also* notes 7-11, *supra*, and accompanying text.

[107] *Id.* § 64(a)(3); *see* Gary E. Parish, Charla Beth Mobley, Patrick H. Zaepfel, *Emissions Monitoring and Any Credible Evidence*, 2000A RMMLF-INST 12 (2000).

[108] 40 C.F.R. § 64.3, § 64.8.

[109] *Id.* § 64.9.

[110] St. Bernard Citizens for Envtl. Quality, Inc. v. Chalmette Ref., L.L.C., 354 F. Supp. 2d 697, 707 (E.D. La. 2005) ("Because Chalmette documented the 34 violations on

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VII. Monitoring pursuant to facility specific orders or agreements

An additional source of monitoring and reporting obligations are consent decrees, administrative orders on consent, good neighbor agreements, and other facility-specific orders or contracts.

EPA has used consent decrees to supplement regulatory requirements such as leak detection and repair regulations,[111] and to impose additional monitoring requirements.[112] For example, the consent decree that resolved a government enforcement action against Murphy Oil USA contains a section entitled "Requirements for Leak Detection and Repair ('LDAR') Program Enhancements."[113] This section's provisions include monitoring and reporting of information about leaks from valves and pumps at two oil refineries, as well as "leak definitions" for valves and pumps that are generally tighter than those set forth in the

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which plaintiffs move for summary judgment as 'preventable' unauthorized discharges, there is no genuine issue of fact as to the existence of those violations."); Sierra Club v. Pub. Serv. Co. of Colorado, 894 F. Supp. 1455, 1458 (D. Colo. 1995) ("CEM data [are] competent evidence of … violations").

Compliance reports may be available on agency web pages and often may be admissible under Fed. R. Evid. 201(b)(2), which provides for judicial notice of facts that can be "readily determined from sources whose accuracy cannot reasonably be questioned." *See* Daniels-Hall v. Nat'l Educ. Ass'n, 629 F.3d 992, 998 (9th Cir. 2010) (taking judicial notice of information on a web site); New Mexico ex rel. Richardson v. Bureau of Land Mgmt., 565 F.3d 683, 702 (10th Cir. 2009) (same); Coleman v. Dretke, 409 F.3d 665, 667 (5th Cir. 2005) (explaining "we fail to see any merit to an objection to the panel taking judicial notice of the state agency's own website."); St. Clair v. JPMorgan Chase Bank, N.A., No. 13-CV-01317, 2014 WL 4661956 n.1 (E.D. Cal. Sept. 18, 2014) (taking notice of a document "available on the FDIC official website" because the court "may verify the accuracy of the [document] by visiting the FDIC's official website").

[111] According to EPA, "Emissions from equipment leaks [from petroleum refineries and chemical manufacturing facilities] exceed emissions from storage vessels, wastewater, transfer operations, or process vents." EPA, *Leak Detection and Repair—A Best Practices Guide*, EPA-305-D-07-001 at 2 (Oct. 2007).

[112] *See* Robert L. Glicksman *et. al., Technological Innovation, Data Analytics, and Environmental Enforcement*, 44 ECOLOGY L.Q. 41, 73 (2017) ("Recent EPA enforcement actions, settlements, and regulations have included requirements that regulated parties monitor at their facility fencelines.").

[113] Consent Decree, *United States v. Murphy Oil USA*, No. 3:10-cv-00563-bbc (ECF No. 9) (W.D. Wis., Feb. 16, 2011) at ¶¶ 112-143.

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regulations.[114] In addition the consent decree provides for "Enhanced Community Information and Outreach" as a "supplemental environmental project."[115] This project includes a Community Air Monitoring Station" to measure ambient levels of hydrogen sulfide, sulfur dioxide, volatile organic compounds, and particulate matter of 10 microns or less.[116] The decree provides for reporting of the resulting data on the internet.[117]

Two additional examples: On May 24, 2005, Chalmette Refining, LLC and the Louisiana Department of Environmental Quality entered into a consent order that created a "St. Bernard Parish Enhanced Ambient Air Monitoring Program" to create six monitoring stations to monitor "criteria pollutants, volatile organic compounds, toxic air pollutants and particulate[s]."[118] An October 31, 2017 proposed consent decree that ExxonMobil and the United States lodged provides for "a set of ambient air monitors that will sample for benzene along the fenceline perimeter of the Baytown Chemical Plant, Baytown Olefins Plant, Beaumont Chemical Plant, and Baton Rouge Chemical Plant."[119]

Other types of agreement can provide for monitoring of emissions or ambient concentrations and reporting of data. Madison Condon has described private contracts, known as "good neighbor agreements," in which—for example—

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[114] Consent Decree, *United States v. Murphy Oil USA*, No. 3:10-cv-00563-bbc (ECF No. 9) (W.D. Wis., Feb. 16, 2011) at ¶¶ 124-126. These paragraphs define leaks as "500 ppm VOCs for all of the Refineries' valves, excluding pressure relief devices" and "2,000 ppm VOCs for all of the Refineries' pumps," although they allow for reporting based on the "applicable regulatory leak definition." *Id.*

[115] Consent Decree, *United States v. Murphy Oil USA*, No. 3:10-cv-00563-bbc (ECF No. 9) (W.D. Wis., Feb. 16, 2011) at ¶ 156C. A "supplemental environmental project" is an "environmentally beneficial project[ ] which a defendant/respondent agrees to undertake in settlement of an enforcement action, but which the defendant/respondent is not otherwise legally required to perform." EPA, *Final EPA Supplemental Environmental Projects Policy Issued*, 63 Fed. Reg. 24796, 24798-99 (May 5, 1998).

[116] *Id.* at ¶ 156C(a).

[117] *Id.* at ¶ 156C(b).

[118] Administrative Order on Consent, Tracking No. AE-AOA-05-0109, Appendix B (May 24, 2005) (attached to Defendant's Motion for Leave to Supplement Opposition, Affidavit of Claudine Gorman, Exhibit A, St. Bernard Citizens for Environmental Quality v. Chalmette Refining, L.L.C., No. 04-398 (E.D. La., filed June 7, 2005) (ECF No. 66).

[119] Proposed Consent Decree at ¶ 48, United States v. Exxon Mobil Corp., No. 17-CV-3302 (S.D. Texas, filed Oct. 31, 2017) (ECF No. 2-1).

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community members will agree to drop opposition to a project in return for concessions that can include environmental quality monitoring and reporting.[120]

VIII. Emerging fenceline and ambient monitoring obligations

On December 1, 2015, EPA promulgated its "Petroleum Refinery Sector Risk and Technology Review" rule.[121] The rule has been controversial, in part because of its provision for "fenceline monitoring" of benzene concentrations.[122] EPA finalized "a compliance schedule for fenceline monitoring, which will require refinery owners or operators to have the fenceline monitors in place and collecting benzene concentration data no later than 2 years from the effective date of the final rule,"[123] *i.e.*, February 1, 2018.[124] Owners and operators must submit the resulting data electronically, and EPA will store it "where it will be easily accessible to everyone and will provide a user-friendly interface that any stakeholder could access."[125]

The rule sets an "action level" for benzene concentrations of "9 micrograms per cubic meter (μg/m3) on an annual average basis."[126] If the action level is exceeded, the owner or operator must "initiate a root cause analysis to determine the cause of such exceedance and to determine appropriate corrective action."[127] EPA considers "the fenceline monitoring requirement to be a work practice standard that will ensure sources take corrective action if monitored benzene levels (as a surrogate for HAP emissions from fugitive emissions sources) exceed the fenceline benzene concentration action level."[128]

On October 18, 2016, EPA granted reconsideration to take comment on five issues.[129] The most relevant of those issues to this paper is whether to "allow for

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[120] Madison Condon, *Citizen Scientists, Data Transparency, and the Mining Industry*, NAT. RESOURCES & ENV'T, Fall 2017, at 24-26.

[121] EPA, *Petroleum Refinery Sector Risk and Technology Review and New Source Performance Standards*, 80 Fed. Reg. 75,178 (Dec. 1, 2015) (codified at 40 C.F.R. pts. 60 & 63).

[122] 40 C.F.R. § 63.658; *see* Ralph Smith, *Detect Them Before They Get Away: Fenceline Monitoring's Potential to Improve Fugitive Emissions Management*, 28 TUL. ENVTL. L.J. 433 (2015).

[123] 80 Fed. Reg. at 75,191; 40 C.F.R. § 63.655(h)(8).

[124] 80 Fed. Reg. at 75,178 (the rule's effective date is February 2, 2016).

[125] *Id.* at 75,185.

[126] 40 C.F.R. § 63.658(f)(3).

[127] *Id.* § 63.658(g).

[128] 80 Fed. Reg. at 75,193.

[129] 81 Fed. Reg. 71,661 (Oct. 18, 2016).

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reduced monitoring frequency (after 2 years of continual monitoring) at monitoring locations with consistently low fenceline concentrations."[130] Litigation about the rule is on hold pending completion of EPA's reconsideration process.[131]

In the preamble to the final rule, EPA noted that communities with "vulnerable populations (minority, low income and indigenous communities)" are likely to benefit "as this rulemaking for the first time ever requires fenceline monitoring, and reporting of fenceline data."[132] Similarly, in an article written after leaving EPA, two former agency officials linked the fenceline monitoring requirement with environmental justice concerns:

> In this country's environmental justice communities, pollution often remains painfully visible. In parts of Louisiana and Texas, for example, clusters of chemical plants and refineries too often have visible emissions that are a fact of life for people living in adjacent housing developments.[133]

Conclusion

Government enforcement of environmental regulations and permits can wax and wane.[134] The increase in publicly available environmental quality data, however, is likely to continue. Enforcement actions based on such data can come from unexpected quarters. Caution, compliance, and good community relations, therefore, remain the best policies.

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[130] *Id.* at 71,666.

[131] *See* EPA, Status Report, American Fuel & Petrochemical Manufacturers v. EPA, No. 16-1033 (D.C. Cir., filed Nov. 9, 2017) (Document #1703852).

[132] 80 Fed. Reg. at 75,226.

[133] Gina McCarthy & Janet McCabe, *Foreword*, 41 HARV. ENVTL. L. REV. 321, 322-23 (2017)

[134] *See, e.g.*, Eric Lipton and Danielle Ivory, *Under Trump, E.P.A. Has Slowed Actions Against Polluters, and Put Limits on Enforcement Officers*, NY Times, Dec. 10, 2017. Just as the pendulum has swung before, it is likely to swing again. *See* William D. Ruckelshaus, *A Lesson Trump and the E.P.A. Should Heed*, NY Times, March 7, 2017.

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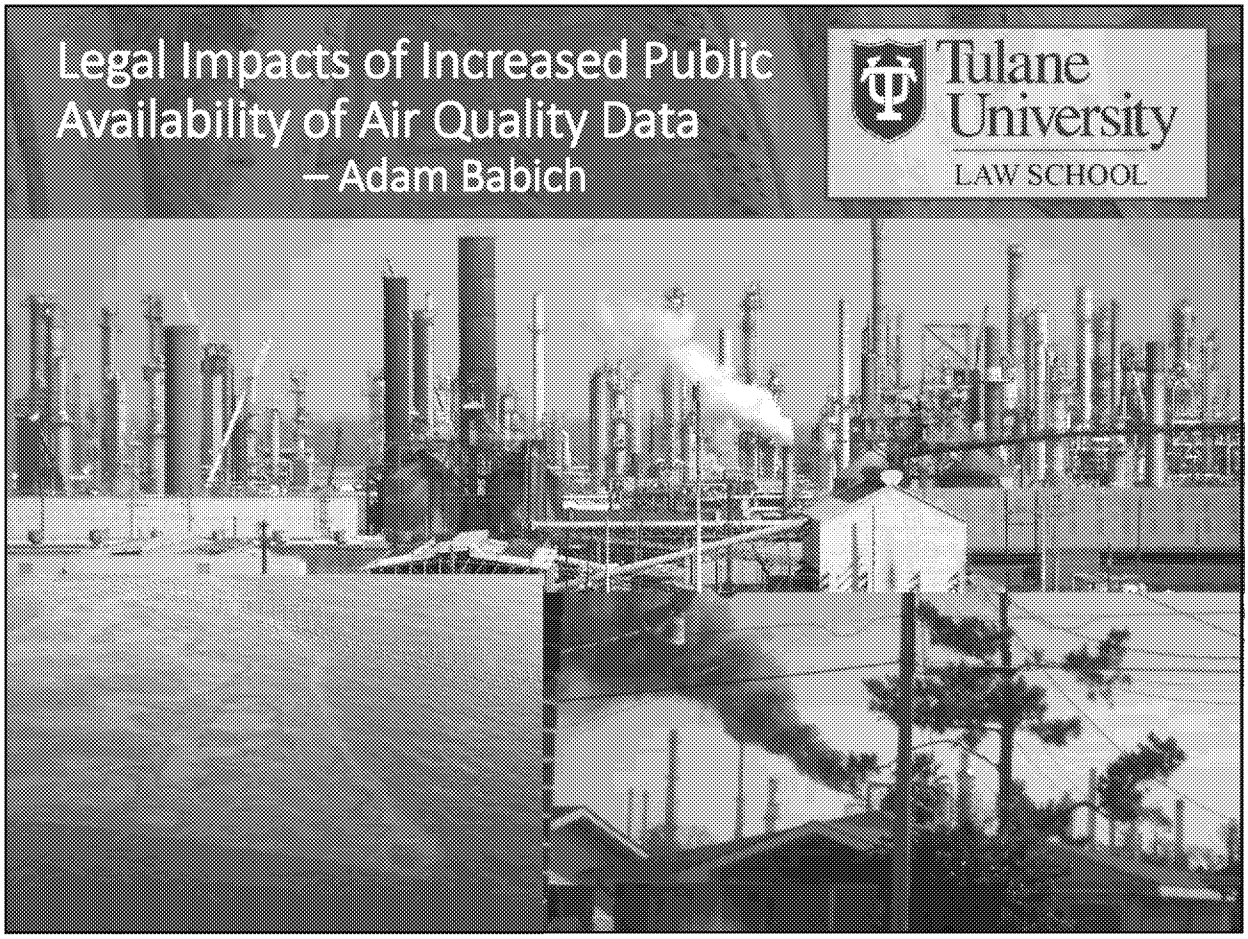

Legal Impacts of Increased Public Availability of Air Quality Data
— Adam Babich
Tulane University
LAW SCHOOL

Clean Air Act Citizen-enforcement authority

- Mandatory court orders,
- Civil penalties of up to $95,284 per day per violation,
- Attorney and expert witness fees
- Application of up to $100,000 in civil penalties to “beneficial mitigation projects”

ExxonMobil
Chemical

September 14, 2011

CERTIFIED MAIL 7011 0110 0001 3305 3905

Mr. Adam Babich
Tulane Environmental Law Clinic
6329 Freret Street
New Orleans, LA 70118

Confidential, For Purposes of Settlement

RE: *LEAN and Stephanie Anthony v. Exxon Mobil Corporation*
19th Judicial District Court, Docket No. 578304

Dear Mr. Babich:

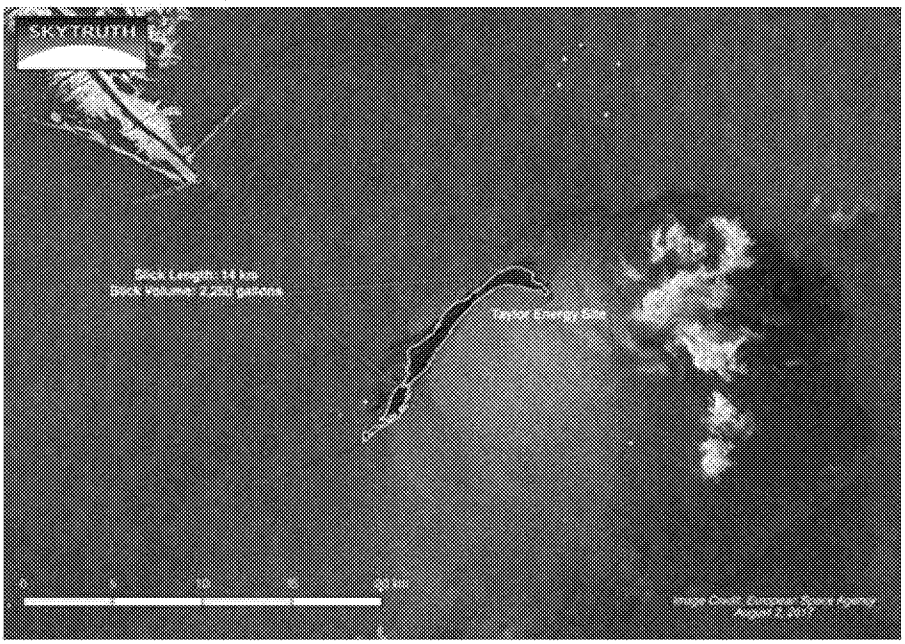
This correspondence is in response to our meeting on July 22, 2011 with you and your clients regarding the above-referenced citizen suit. Representatives of both parties previously met to discuss this matter on July 28, 2009. Since that time, Exxon Mobil Corporation (ExxonMobil) has resolved the compliance issues set forth in Appendix B of the citizen suit with the Louisiana Department of Environmental Quality (LDEQ). ExxonMobil takes pride in being a responsible member of the community and strives to achieve our corporate objective of 100% compliance.

At our meeting on July 22, 2011, we stated that ExxonMobil intends to file a Motion for Summary Judgment on the citizen suit in the near future unless your clients agree to a voluntary dismissal. At your request, we agreed to discuss with our management whether ExxonMobil would be willing to engage in further conversations with LEAN on ambient air monitoring issues related to the Baton Rouge facility. For the following reasons, ExxonMobil has decided not to participate in such a discussion. First, as stated at our meeting, ExxonMobil believes that the LDEQ is the correct entity with which it should review environmental regulatory and compliance issues. As noted, ExxonMobil has settled pending compliance issues with this fully delegated authority and intends to continue this policy in the future. Second, because the U.S. Environmental Protection Agency (EPA) is reviewing residual risk issues for this and other industry sectors, monitoring will be studied and addressed by this federal agency in the future, as appropriate.

The "credible evidence" principle

- *Clean Air Implementation Project* v. EPA (D.C. Cir. 1998)
- Does credible evidence alter underlying permit standards?
- Title V citizen petition authority

Citizen monitoring & surveillance



SkyTruth
August 4, 2017 ·

We have detected another slick emanating from the #TaylorEnergy Site; this one picked up by the European Space Agency's Sentinel 1 satellite. By our conservative estimate, this is a spill of 2,250 gallons. The bright area to the east of the Taylor site is a large rain cell.

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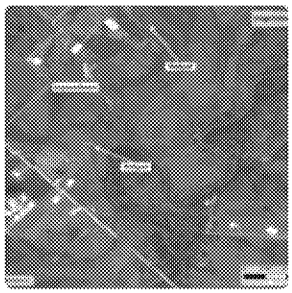
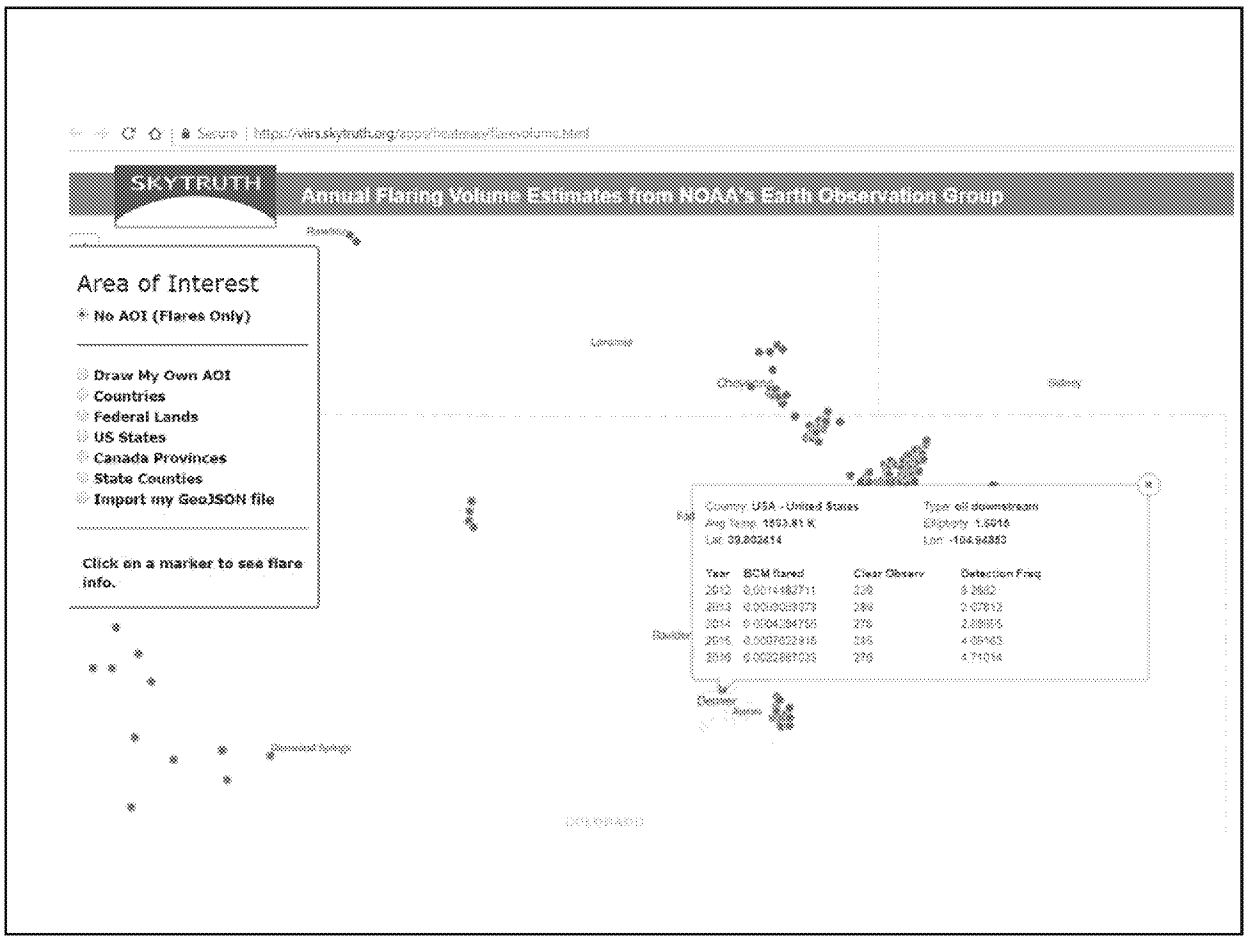


Harvey's Environmental Impact, a Look at Flooded Petrochemical Sites

October 2, 2017 / in Incidents, Oil & Gas / by Christian Thomas

Since Hurricane Harvey made landfall last month, we continued to analyze satellite imagery along the middle of the Texas Gulf Coast for environmental impacts. The first in a series of catastrophic storms, Harvey struck the heart of the U.S. petrochemical industry, leading to widespread flooding of oil and gas infrastructure, toxic chemical spills and adverse short and long-term public health risks from air and water pollution. We encourage citizens to report pollution incidents and have made the SkyTruth Spill Tracker available on an ongoing basis for this purpose. Harvey's environmental toll is significant. In addition to the widely reported explosions at the Arkema plant,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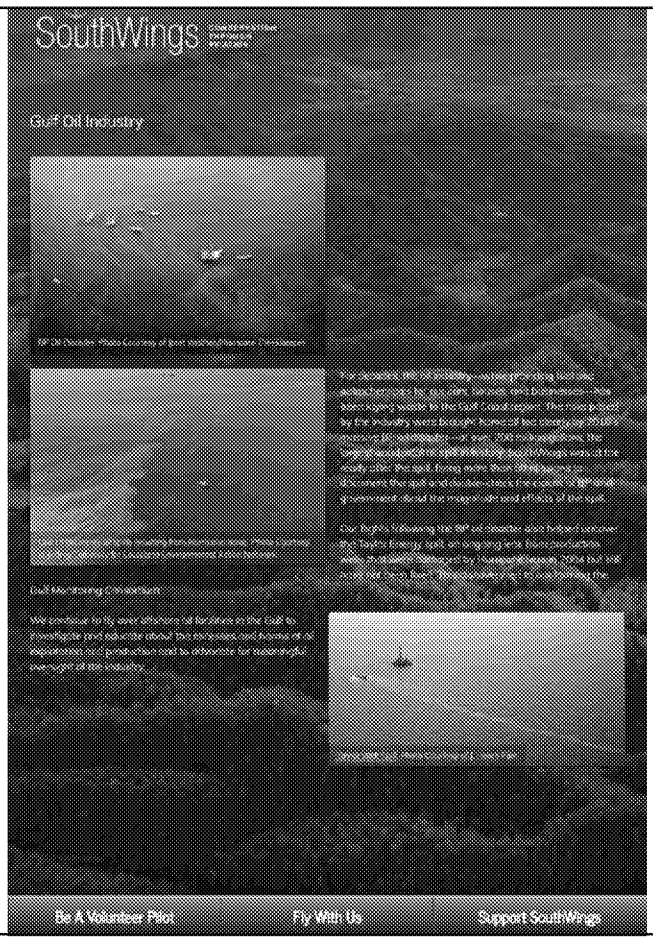
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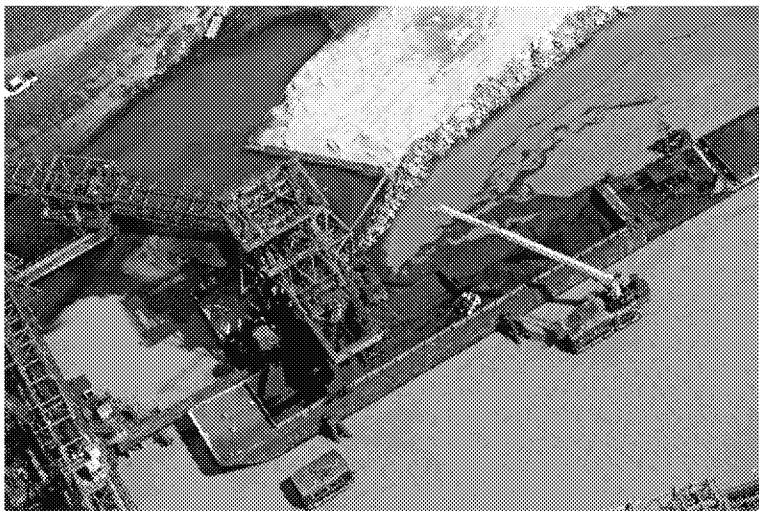

No doctorate required: you too can be a citizen scientist and save the planet

GERALD HERBERT/AP

Newsweek

Environmental regulation in America is so dysfunctional that one U.S. environmental agency official recently said (under the condition of anonymity), "We basically need citizens to sue in order for us to do our jobs."

But if you want to sue, how do you show that the power plant down the street is giving your kid asthma, or that the local chemical plant is illegally dumping toxic materials into the river that cuts through your town?

If you're Scott Eustis, a coastal wetland specialist at the Gulf Restoration Network, you go fly a kite. Specifically, you fly a kite to which you've strapped a small $40 digital camera. He has used the kite to map the waterways of the Mississippi Gulf Coast, taking aerial images of the environmental damage afflicting the region's bayous, lakes, rivers and streams.

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The images the kite captured are now, in part, the basis of a federal lawsuit filed in March against United Bulk Terminals Davant, a coal export facility in New Orleans. The suit alleges that the terminal has violated the federal Clean Water Act by discharging hazardous coal runoff and petroleum coke into the Mississippi River. Although organizations had been monitoring the region for years, "it was the mid-range distance of the kite photos," says Eustis, "that provided high-resolution photographs that showed that not only was this company violating its permit but that they were dumping so much petroleum and coal byproduct that it was forming a pile."

wwno.org/post/environmental-groups-sue-plaquemines-coal-terminal-violating-clean-water-act

Environmental Groups Sue Plaquemines Coal Terminal For Violating Clean Water Act

By JASON SAUL • MAR 18, 2014

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Coal and petroleum waste leak into the Mississippi River from the United Bulk Terminal facility in Plaquemines Parish on Feb. 18. A consortium of environmental groups sued the facility Tuesday morning.

SCOTT SUTTON/HEALTHYGULFGROUP AND SOUTHWEST PRESS/AP

A lawsuit filed Tuesday morning by a coalition of environmental groups says the United Bulk Terminal, a coal export plant in

Scott Eustis, coastal wetlands specialist for the Gulf Restoration Network.

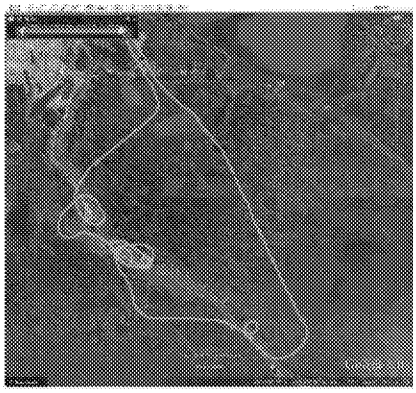
CREDIT JASON SAUL / WWNO

As we pass overhead we can clearly see black plumes in the water, stretching from open-air barges and equipment laden with coal and petroleum dust.

"You can see that coal falling off the loader is a violation of their water permit."

Eustis leans forward and starts shooting photos. Each image is geolocated via a small device he carries to add to their court filings.

"Smile for the Coast Guard," he says to the plant below.

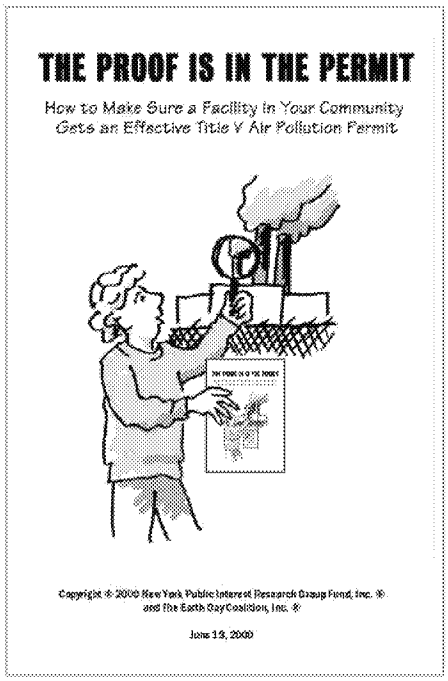


Our flight path.

CREDIT: HEALTHYGULFFOUNDATION AND SOUTHWINGS.ORG

United Bulk Terminals Davant, LLC, the company that owns the terminal and has been operating it since 1965, says it has been in dialog with the lawsuit plaintiffs since November. That's when United Bulk says the environmental groups first approached the company.

Monitoring sufficient to assure compliance

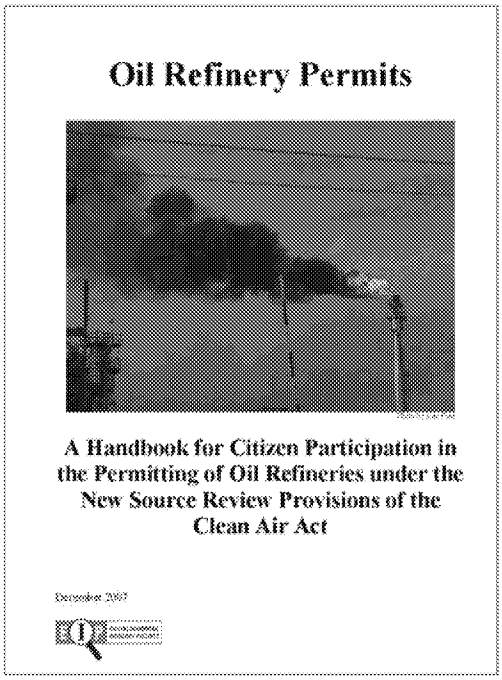


THE PROOF IS IN THE PERMIT

How to Make Sure a Facility in Your Community Gets an Effective Title V Air Pollution Permit

Copyright © 2000 New York Public Interest Research Group Fund, Inc. ® and the Earth Day Coalition, Inc. ®

June 19, 2000



Oil Refinery Permits

A Handbook for Citizen Participation in the Permitting of Oil Refineries under the New Source Review Provisions of the Clean Air Act

December 2000

Publicly accessible reports

CHALMETTE REFINING, L.L.C.

RECEIVED

JUL 22 2003

OFFICE OF
ENVIRONMENTAL COMPLIANCE

P.O. Box 1007
CHALMETTE, LA 70044
(504) 279-9481

July 17, 2003

CERTIFIED MAIL (7001 0360 0002 8624 4287) RETURN RECEIPT REQUESTED

Louisiana Department of Environmental Quality
P.O. Box 82263
Baton Rouge, LA 70884-2263
Attention: Mr. Bruce Hammatt, Assistant Secretary of Environmental Compliance

"UNAUTHORIZED DISCHARGE NOTIFICATION REPORT"

SOB-8634
F-62774
Louis Schoppegrell
SERO
AI # 1376

Chalmette Refining, L.L.C.
Chalmette Refinery
Agency Interest No. 1376

Dear Mr. Hammatt:

On July 10, 2003, your office was notified by Chalmette Refining, L.L.C., regarding a continuous release of benzene from three refinery storage tanks. This notification is not in conjunction with any upset or emergency condition. Rather, this is an administrative notification intended to satisfy continuous release reporting provisions in EPCRA (40 CFR 355.40), including related requirements incorporated from CERCLA (40 CFR 302.8).

The information contained herein is submitted pursuant to LAC 33:I.3925 and LAC 33.III.5107.B.4 of the Louisiana Administrative Code:

1. Facility Location: Chalmette Refinery
500 W. St. Bernard Highway
Chalmette, Louisiana
St. Bernard Parish

Contact Person: Justin Stubbe
(504) 281-1364

2. Date and Time of Verbal Notifications, DEQ Official Contacted, and Company Official who made the calls:

Date and Time	DEQ Official	Company Official
7/10/03 12:15	Walter (LSP)	Justin Stubbe

3. Date, time discharge began, duration : This is an ongoing, continuous release as defined by the CERCLA regulation. It is not related to any upset or emergency condition.

4. Detail of events leading to any emergency condition: Tanks 200, 13001, and 13002 store product-grade benzene produced by the refinery's chemical operations. All three vessels are equipped with external floating roofs and roof seals meeting the requirements of LAC 33.III.2103 and SOCMI HON. These controls reduce, but do not eliminate, emissions. Improved emissions calculation methods and assumptions indicate that the normal emissions from these tanks may exceed current permit limits, which were established using prior emissions estimating methodologies. There is no emergency condition.

5. Substance Released / CAS Number: Benzene / 71-43-2

   DOTD Hazard Class: DOT Hazardous Substance per 49 CFR 172.101 Hazardous Materials Table

   Estimated Quantity: The preliminary emission estimate is 51 lb/day above the LDEQ permit limit (68 lb/day total). Additional information regarding this release will be included in the continuous release report submitted pursuant to EPCRA. Chalmette Refining will submit this report to your office no later than August 9, 2003.

6. Probable Fate or Disposition of substance released:
   Benzene released to atmosphere from Tanks 200, 13001, and 13002.

7. Remedial Actions taken to stop discharge:
   Because these releases are associated with normal refinery operations, no incident response or mitigation has been necessary. Refinery operations are being maintained to ensure unit stability.

8. Specific action taken and/or planned to prevent recurrence:
Refinery personnel are currently working with the LDEQ Enforcement Division to update permitted emission rates to reflect the improved emissions estimating methodologies.

9. Permit number (if applicable): 2500-00005-02 (Tank 200)
2226(M-3) (Tanks 13001 and 13002)

10. Reporting party status: Present Operator

11. For discharges to ground or groundwater (pollutants migrating, monitoring well data, routes of migration): Not applicable

12. Names of all other responsible parties: None

13. Discharge Preventable: Not preventable; These emissions do not result from any specific malfunction, upset, or emergency condition. They occur during the normal and safe operation of refinery storage tanks. These tanks were designed and constructed in accordance with appropriate industry and regulatory standards and are also operated and maintained to such standards.

If you have any questions or require additional information, please contact Justin Stubbe at (504) 281-1364.

Very truly yours,

Claudine Gorman

C. Gorman
Environmental Group Leader

Refinery faces clean-air charges

Chalmette facility is cited 2,600 times

By Manuel Torres
St. Bernard Bureau chief

A federal judge has ruled that Chalmette Refining LLC violated the federal Clean Air Act more than 2,600 times since 1999, by discharging more pollution into the air than its permits allow. The judge is now considering whether to fine the company up to $32 million or require it to upgrade or shut down some storage tanks.

In a ruling signed Oct. 14 and released Wednesday, U.S. District Judge Sarah Vance said the refinery, one of St. Bernard Parish's largest employers, surpassed its allowed releases of benzene more than 1,200 times and also exceeded limits for the release of sulfur dioxide and flare ups.

The decision was a victory for a St. Bernard environmental group, St. Bernard Citizens for Environmental Quality, and other state activists who filed suit against the company last year. It also comes as Congress considers relaxing Clean Air Act requirements to stimulate more refinery production as a way to quench the nation's fuel thirst, which has stoked higher gasoline prices since Hurricanes Katrina and Rita hit.

Adam Babich, director of Tulane University's Environmental Law Clinic, which represented the plaintiffs, said the ruling "should help" raise questions about Congress' proposal, which he called a "subsidy" to refineries.

"Why should the neighbors who live next to these refineries pay that subsidy? Why should the subsidy be that you can contaminate your neighbors' air?" he said.

The refinery is a joint venture of ExxonMobil Corp. and Petroleos de Venezuela. Refinery officials and spokespersons at ExxonMobil headquarters could not be reached Wednesday. The company has said in the past that the violations were not preventable and that the refinery has spent more than $108 million in the past three years to improve its environmental performance.

The ruling stemmed from a 2004 suit filed by St. Bernard Citizens for Environmental Quality and another group, the Louisiana Bucket Brigade, alleging the refinery routinely violated its emissions limits.

Vance in February ruled the refinery had committed 24 violations. Last week's decision added 2,629 violations since 1999, including more than 1,200 excessive releases of benzene, a substance that can cause cancer, according to the Environmental Protection Agency. The list also included 802 violations of flaring limits and 568 violations of emission limits on sulfur dioxide.

The ruling indicates the benzene emissions came from two tanks storing the substance at the refinery. The Clean Air Act allows fines of up to $32,500 per violation, or more than $85 million if Vance chooses to impose maximum fines in all of Chalmette Refining's violations. Vance could also issue an injunction giving the company a deadline to stop excessive emissions or shut down its benzene tanks, Babich said.

Vance has given the two sides two weeks to file arguments on the possible impact of Katrina "on the propriety of an injunction." It's unclear when she may announce any penalties against the refinery.

******

Manuel Torres can be reached at mtorres@timespicayune.com or at (504) 355-2343.

EMERGENCY OCCURRENCE AND/OR AIR UPSET NOTIFICATION FORM

COMPANY NAME: Murphy Oil USA, Inc.
PHYSICAL LOCATION: 2500 E. St. Bernard Hwy.
P. O. BOX: P. O. Box 108
CITY, STATE, ZIP: Meraux, LA 70075
TELEPHONE NO: (504) 271-4141

DATE/TIME OF CALL: 4/30/04, 15:56 hrs
DEQ OFFICIAL CONTACTED: Charlie
MURPHY OFFICIAL WHO MADE CALL: M. Prattini

APPLICABLE PERMIT INVOLVED? 2500-00001-V1

EMISSION PT. SOURCE(S) INVOLVED? #2 SRU Incinerator Stack, 1-93

APPLICABLE AIR QUALITY REGULATIONS INVOLVED? LAC 33:III.927

UPSET DESCRIPTION, CAUSE, AND WHAT OFFSITE IMPACT RESULTED:
On April 30, 2004 at approximately 15:40 hrs, the refinery bypassed the #2 Sulfur Recovery Unit Tail Gas Treater (TGT) due to a loss of flame in the TGT incinerator. The electronics in the fire eye flame detector were disrupted by a contractor conducting a radiographic inspection in a nearby unit. The finely focused stream of high energy radiation traveled beyond the inspection point, inadvertently bombarding the flame detector. The disruption at the flame detector triggered an automatic safety shutdown of the incinerator. The refinery restored flame to the burner at approximately 17:15 hrs and concluded the TGT bypass at 18:40 hrs.

Emissions from the event did not exceed any Reportable Quantities and, therefore, would not be expected to cause adverse offsite impact. The refinery did not receive any allegations of impact from neighbors in the surrounding community.

DATE/TIME RELEASE BEGAN AND TIME IT LASTED:
The episode began 4/30/04 at 15:40 hrs and lasted approximately 3.0 hours.

WHICH SPECIFIC POLLUTANTS WERE EMITTED AND HOW MUCH OF EACH COMPOUND WAS RELEASED?
The episode resulted in estimated emissions of 243 pounds of sulfur dioxide (RQ = 500#) and 43 pounds of hydrogen sulfide (RQ = 100#). See the attached calculation sheet.

EMERGENCY OCCURRENCE AND/OR AIR UPSET NOTIFICATION FORM

WHAT OTHER AGENCIES WERE NOTIFIED? SERC and LEPC.

IMMEDIATE CORRECTIVE ACTION TAKEN?
The refinery restored flame to the #2 TGT incinerator and returned the unit to service without further incident.

SPECIFIC ACTIONS TAKEN/PLANNED TO PREVENT RECURRENCE?
The refinery is constructing a plot plan to illustrate the locations of all instruments susceptible to radiation. The refinery will issue a work permit only after confirming: (1) the location of x-ray inspections relative to susceptible instruments, and (2) the positioning of temporary lead shielding to protect susceptible instruments.

WAS THE RELEASE PREVENTABLE? (If no, provide details):
Yes. The incident was the result of a miscommunication between the contractor and the refinery. The refinery has instituted the changes listed above to improve program coordination between the refinery and the contractor. The radiographers were fully trained and qualified to industry standards, and conducted the inspection according to their company's procedures.

REGULATION NOTIFICATION REQUIREMENT(S):

x LAC 33:III.927 (Upset/Emergency)
____ LAC 33:I.3917 (RQ)
____ LAC 33:III.5107B (Air Toxics)

SIGNATURE Matt Dill DATE 5/6/04

TITLE Environmental Engineer

La. Admin. Code. tit. 33 pt. III, §507(J) — Upset Provisions

1. For the purposes of this Subsection, an *upset* is any situation arising from sudden and reasonably unforeseeable events beyond the control of the owner or operator, including acts of God, which situation requires immediate corrective action to restore normal operation and that causes the source to exceed a technology-based emissions limitation under the permit due to unavoidable increases in emissions attributable to the situation. An upset shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

2. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based emissions limitations provided the owner or operator demonstrates through properly signed, contemporaneous operating logs or other relevant evidence that:

a. an upset occurred and that the owner or operator can identify the cause(s) of the upset;

b. the permitted facility was at the time being properly operated;

c. during the period of the upset the operator took all reasonable steps to minimize levels of emissions that exceeded the emissions standards and other requirements in the permit; and

d. the owner or operator notified the permitting authority in accordance with LAC 33:I.Chapter 39.

3. In any enforcement proceeding, the owner and operator seeking to establish the occurrence of an upset has the burden of proof.

4. The provisions of this Subsection are in addition to any emergency or upset provisions contained in any applicable requirement.

5. The provisions of this Subsection do not apply to acid rain emission limitations.

Note: This provision is subject to EPA's "SSM SIP Call." EPA's action was challenged in Environmental Committee of the Florida Electric Power Coordinating Group v EPA, No. 15-1239 (D.C. Cir.), which is on hold indefinaily pending EPA review.

Murphy Oil Refinery Flaring

ExxonMobil

March 30, 2016

7014 3490 0000 4425 1941

Title V Program
Enforcement Division
Office of Environmental Compliance
Louisiana Department of Environmental Quality
P. O. Box 4312
Baton Rouge, LA 70821-4312

Re: ExxonMobil Chemical Company, Baton Rouge Chemical Plant (BRCP)
Annual Part 70 Compliance Certification
Agency Interest No. 286

ExxonMobil Chemical Company, Baton Rouge Chemical Plant (BRCP) has Part 70 Permits for several operating areas. An *Annual Compliance Certification* is required by General Condition M of approved Part 70 Permits, covering the period from January 1, 2015 through December 31, 2015. This *Compliance Certification* addresses the Part 70 General Conditions, Part 70 Specific Conditions, emission limitations (except where identified as "State Only") listed in the affected Part 70 Permits, along with the applicable regulatory requirements identified in Tables 1 and 2 of the permits (except where identified as "State Only"). Certification is based on a process of reasonable inquiry using the methods listed in Table 3 of the permits and a review of other material evidence of the compliance status of the affected facilities.

I certify, based on information and belief formed after reasonable inquiry (based on the procedures, methods, devices and activities used to maintain compliance) that ExxonMobil Chemical Company, Baton Rouge Chemical Plant (BRCP) has been in continuous compliance during the permit term with all federally enforceable Clean Air Act applicable requirements of approved Part 70 Permits, except as previously reported per General Conditions K & R and/or summarized in this submittal.

Compliance certification with 40 CFR Part 68 requirements (Risk Management Plan or "RMP") is based on ExxonMobil's Operations Integrity Management System (OIMS), which addresses all elements of the RMP Program. The OIMS contains processes, procedures, and assessment protocols to evaluate the company's continued compliance with RMP requirements, including continuous improvement.

I certify, under provisions of Louisiana and United States law which provide criminal penalties for false statements, that based on information and belief formed after reasonable inquiry the statements and information contained in this report are true, accurate and complete.

If you have questions or need more information, please call Brady Fontenot at (225) 977-0609.

Sincerely,

/rdf

ExxonMobil Chemical Company
Baton Rouge Chemical Plant (BRCP)

Part 70 Permit List for Reporting Period

January 1, 2015 through December 31, 2015

Permit Number	Deviation Listed in This Report?	Operating Area	Reporting Period
2031-V9	Yes	Maintrain Ethylene Production	1/01/2015 through 12/14/2015
2031-V10	No		12/15/2015 through 12/31/2015
2361-V2	Yes	Refinery Gas Recovery	1/01/2015 through 6/04/2015
2361-V3	No		6/05/2015 through 12/31/2015
2367-V2	Yes	CoProducts	1/01/2015 through 12/31/2015
2299-V7	Yes	Aromatics	1/01/2015 through 12/31/2015
1924-V4	No	Isopropyl Alcohol	1/01/2015 through 3/03/2015
1924-V5	Yes		3/04/2015 through 12/31/2015
2281-V3	No	Methyl Ethyl Ketone/Sec-Butyl Alcohol	1/01/2015 through 3/05/2015
2281-V4	No		3/06/2015 through 12/31/2015
2379-V1	No	Neo Acids	1/01/2015 through 12/31/2015
2123-V1	Yes	NOVA Units	1/01/2015 through 12/31/2015
2365-V4	Yes	OXO Alcohol	1/01/2015 through 12/31/2015
2393-V3	Yes	OXO Tank Field	1/01/2015 through 12/31/2015
2210-V1	No	Partial Oxidation	1/01/2015 through 12/31/2015
1200-V4	Yes	Phthalic Anhydride	1/01/2015 through 12/31/2015
2320-V3	No	Plasticizer	1/01/2015 through 12/31/2015
2396-V2	Yes	Poly	1/01/2015 through 12/31/2015
2166-V5	Yes	Halobutyl	1/01/2015 through 3/04/2015
2166-V6	No		3/05/2015 through 12/31/2015
2376-V3	No	VISTALON®	1/01/2015 through 12/31/2015
1911-V3	No	Adhesions (includes Heartcut Distillate, E-1000, and E-5000)	1/01/2015 through 12/31/2015
2012-V3	Yes	Baton Rouge Turbine Generator	1/01/2015 through 12/31/2015
2390-V3	Yes	Plant Infrastructure	1/01/2015 through 12/31/2015
3006-V2	No	Advanced Wastewater Treatment	1/01/2015 through 3/09/2015
3006-V3	No		3/10/2015 through 12/31/2015

Consent Decrees, etc.

ED_004016P_00001048-00152

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

UNITED STATES OF AMERICA and the LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY,	)	Civil Action No. 4:17-cv-3302
Plaintiffs,	)	Judge
v.	)	Magistrate
EXXON MOBIL CORP. and EXXONMOBIL OIL CORP.,	)	
Defendants.	)	

CONSENT DECREE

United States, et al.
v.
Exxon Mobil Corp., et al.

APPENDICES TO CONSENT DECREE

APPENDIX 2.2

Fenceline Monitoring Requirements

FENCELINE MONITORING REQUIREMENTS

1. **Applicability.** The requirements of this Fenceline Monitoring Project apply to the following Covered Facilities that are owned and/or operated by the Defendants: Baytown Chemical Plant, Baytown Olefins Plant, Beaumont Chemical Plant, and Baton Rouge Chemical Plant (collectively referred to herein as the "Subject Facilities").

2. **Timing and Public Transparency.** No later than 270 Days after the Effective Date, the Defendants must submit in writing to EPA a report: a) showing the location of all monitors at each Subject Facility that will be utilized to comply with the Monitoring Requirements of Paragraph 3 below and b) providing a URL to a mockup of the publicly available website to be used to report monitoring data pursuant to this Fenceline Monitoring Project.

   The Fenceline Monitoring Systems described in the Paragraph 3 below must commence collecting data 365 Days after the Effective Date (Effective Date is defined at Section XVIII of the Consent Decree).

   The Defendants must post to a publicly available website each individual sample result for each monitor, each biweekly annual average concentration difference value (once annual averages are available), and any corrective action plan submitted to EPA pursuant to Paragraph 3(g)(corrective action plans posted to the website may be redacted to protect confidential business information). The Defendants must post each individual sample result for each monitor within two weeks of the end of the biweekly sampling period or within one week of sampling collected pursuant to the "alternative sampling frequency for burden reduction" requirements set forth in Paragraph 3(e)(3) below. The Defendants must post each annual average difference value within 45 Days of the sampling period that allows the creation of a new annual average difference value. The data must be presented in a tabular format.

3. **Monitoring Requirements.**

(a) The Defendants must commence sampling along the property boundary of each of the Subject Facilities. The Defendants must collect and analyze the samples in accordance with Methods 325A and 325B of Appendix A to 40 C.F.R. Part 63 (Test Methods – Pollutant Measurement Methods From Various Waste Media) (hereafter "Rule Appendix A") and sub-Paragraphs 3(b) through 3(h).

(b) The target analyte for the Fenceline Monitoring Systems is benzene.

(c) Siting of monitors. The Defendants must determine the passive monitor locations comprising each Fenceline Monitoring System in accordance with Section 8.2 of Method 325A of Rule Appendix A.

Emerging fenceline and ambient monitoring obligations

FEDERAL REGISTER

Vol. 80 Tuesday,
No. 230 December 1, 2015

Part II

Environmental Protection Agency

40 CFR Parts 60 and 63
Petroleum Refinery Sector Risk and Technology Review and New Source Performance Standards; Final Rule

Conclusion:

Be Careful Out There!

Ozone in the West: Do We Have the Right Tools in Our Toolbox?

Courtney Taylor, Air Quality Scientist and Project Manager
AECOM Environment
Fort Collins, CO

Nancy Vehr, Administrator
Air Quality Division,
Wyoming Department of Environmental Quality
Cheyenne, WY

Robyn L. Wille, Assistant Attorney General
Air Quality Unit,
Colorado Attorney General's Office
Denver, CO

ED_004016P_00001048-00161

"Ozone in the West: Do We Have the Right Tools in Our Toolbox?"

Courtney Taylor, M.S., Atmospheric Scientist and Project Manager, AECOM Environment

INTRODUCTION

Increasingly sophisticated epidemiological studies are driving more stringent health-based air quality standards. Such is the case when the United States Environmental Protection Agency (USEPA) finalized a new National Ambient Air Quality Standard (NAAQS) for ozone on October 1, 2015, reducing the ozone concentrations allowed in ambient air from 75 parts per billion (ppb) (the standard set in 2008) to 70 ppb over an eight hour period. A reduction of the ozone NAAQS has repercussions throughout the country, but the effects are likely to be felt most in the West, where the conditions that form ozone, relative abundance of precursor emissions, and contributions from international sources are all quite different than other areas of the country.

The hurdles facing western regulators and the regulated community in regards to meeting and demonstrating compliance with the ozone NAAQS are extensive. Issues that challenge regulators in other parts of the country – such as high background levels relative to the standard (i.e., no real "low hanging fruit" remain), overly simplified upwind air quality concentrations in predictive models, ability to demonstrate elevated concentrations are due to an exceptional event, etc. – are just as relevant in the West, if not more substantial.

In addition to national challenges, new concerns are emerging in the West as a result of the lower ozone NAAQS. Western concerns vary widely and include items such as increasing ozone transported from international sources, dated and inaccurate international emissions in models, difficulty modeling mountainous terrain and associated meteorological phenomena, and ozone formation events that occur in the West during winter in snow covered areas.

Unfortunately, the tools available to help regulators determine the optimal control strategy to attain a lower ozone NAAQS are often inadequate to characterize, let alone resolve, western issues. As discussed below, one size does not fit all, particularly when it comes to assessing ozone concentrations and determining optimal solutions for western communities.

OVERVIEW OF ATTAINMENT DESIGNATION PROCESS AND ROLE OF MODELS

When measurements of air quality in an area have concentrations that are below the NAAQS, an area is designated by USEPA as being in "attainment" with the standard. Some areas do not have available measurements, in which case the USEPA designates the area as "unclassifiable." For areas with measurements of air quality that exceed the NAAQS, the area is designated by USEPA as "nonattainment" for that standard.

The views expressed in this paper are solely those of the author (or authors).

Please cite as: Courtney Taylor, "Ozone in the West: Do We Have the Right Tools in Our Toolbox," *Air Quality Issues Affecting Oil, Gas, and Mining Development and Operations* 3-1 (Rocky Mt. Min. L. Fdn. 2018).

ED_004016P_00001048-00163

For both attainment and nonattainment areas alike, tools are necessary to assess ozone impacts and inform decision makers. For attainment areas, new or modified sources may be required to conduct a modeling analysis to demonstrate that the source would not cause or contribute to an area exceeding the ozone NAAQS as part of Prevention of Significant Deterioration (PSD) permitting process (40 Code of Federal Regulations Part 51). For nonattainment areas where ozone concentrations exceed the standard and are classified as "moderate" or above, states (or tribes) are required to conduct a modeling analysis as part of the State Implementation Plan/Tribal Implementation Plan (SIP/TIP). The primary objective of the modeling analysis for SIPs/TIPs is to demonstrate that planned emissions controls would be sufficient to attain the standard by the attainment deadline.

While tools are necessary to assess ozone impacts and demonstrate control efficacy, available tools have notable limitations, unquantified uncertainty, and are often used inappropriately. Given the challenges we face nationally, and in the West in particular, it is critical that the available tools be improved, the process streamlined, and new tools be developed (and accepted for use) in order to have more reliable results and increased confidence in emission control strategies.

DISCUSSION OF TOOLS

There are a limited number of tools available to help regulators and the regulated community assess and resolve ozone concerns. The tools currently include conceptual models, predictive gridded models, such as the Community Multiscale Air Quality (CMAQ)[1] Model and Comprehensive Air Quality Model with Extensions (CAMx)[2], exceptional events demonstrations, and single source models such as Second Order Closure Integrated Puff Model with Chemistry (SCICHEM)[3]. The list of challenges these tools need to be able to address, either individually or in combination, is long indeed.

As the allowable concentrations of ozone decrease on a national level, concern over natural, uncontrollable levels of ozone, referred to as natural background concentrations, increases and becomes more significant, hampering the regulatory

---

[1] CMAQ combines atmospheric science and air quality modeling with multi-processor computing to estimate concentrations of ozone, particulates, toxics, and acid deposition. CMAQ is developed by USEPA. More information is available at: https://www.cmascenter.org/cmaq/.

[2] CAMx is a multi-scale photochemical modeling systems for gas and particulate air pollution. CAMx is developed and supported by Ramboll. More information is available at: http://www.camx.com/.

[3] SCICHEM is a reactive puff model that can be used to calculate single or multi-source impacts of emissions at downwind locations. SCICHEM was developed with funding from Electric Power Research Institute. More information is available at: https://www.epri.com/#/pages/product/3002010342/ .

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agencies' ability to meaningfully reduce concentrations. This challenge is not unique to the West, but it is an important challenge to be mitigated by all parties. Current predictive models, such as CMAQ and CAMx, provide reasonable estimates of the fraction of total ozone that is attributable to natural background (Dalwick et al 2015). In this capacity, available models are reliable and generally sufficient.

A second concern is ozone transport from other countries to the U.S., commonly referred to as "international transport", has increased. Studies have found that the increase in Asian NOx emissions effectively offset the benefits of U.S. emissions reductions leading to weak or insignificant observed ozone trends in monitored ozone in the western U.S. (Min Huang et al 2017, Lin, et al. 2017). To complicate matters, predictive models are subject to significant uncertainty related to estimates of international transport. In particular, CMAQ and CAMx rely on outputs of global chemical transport models, such as GEOS-Chem and MOZART[4], to provide estimates of ozone from international sources that are transported into the model domain. These inputs are referred to as "boundary conditions." The coarse spatial resolution[5] of the global model and uncertainty in international emissions estimates directly affect the ability of regional models to reproduce measured concentrations.

This is important for two reasons. First, boundary conditions are typically a substantial fraction of the total model predicted ozone concentrations. In the West, estimates of the contributions of boundary conditions can even make up 50 percent of total concentrations in nonattainment areas (Taylor et al. 2017a). Secondly, boundary conditions are a fixed input to the model, meaning that one set of boundary conditions is used from a single annual simulation regardless of how typical that year is and the variability expected in future years. Altogether this means that the uncertainty in emissions from international sources is not negligible, has the potential to affect modeling results, and it is difficult to mitigate their contributions. This is particularly an issue in the West as there is a larger fraction of ozone from international transport that is represented in predictive models by application of boundary conditions.

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[4] GEOS-Chem and MOZART are both global chemical transport models. GEOS-Chem is developed and supported by the Atmospheric Chemistry Modeling Group at Harvard University. More information about GEOS-Chem is available at: http://wiki.seas.harvard.edu/geos-chem/index.php/Main_Page
MOZART is developed jointly by the U.S. National Center for Atmospheric Research, the Geophysical Fluid Dynamics Laboratory, and the Max Planck Institute for Meteorology. More information about MOZART is available at: https://en.wikipedia.org/wiki/MOZART_(model)

[5] Chemical Transport Models estimate air quality concentrations within a given volume of air. Global models typically use much larger volumes than regional models to enable models to estimate concentrations over the full globe. The coarser the spatial resolution, the more likely the model results will be inaccurate for a given location.

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Despite international emissions being an important fraction of the model-estimated ozone, international emissions are poorly characterized. International emissions are represented in predictive models using two pathways. The first was discussed previously, whereby international emissions are simulated in a global model and global model outputs are used as input into the regional models. The second is that international emissions from border countries are directly modeled for the fraction of the country that is within the model domain. For international emissions directly modeled from border countries, the inputs are generally quite dated and less accurate than the emissions modeled within the US. The practice of using a non-U.S. emissions inventory for over a decade without updating the data compounds problem. This practice provides questionable results for many studies, particularly for those areas in proximity to borders (Taylor et al. 2017a). Furthermore, this issue is not limited to ozone but is evident for other pollutants as well (Taylor et al. 2017b).

The Exceptional Event Rule allows for air agencies to exclude monitored air quality data from regulatory determinations when the data has been influenced by "exceptional events". Exceptional events meet the following conditions: "1) The event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation, (2) the event was not reasonably controllable or preventable, and (3) the event was caused by human activity that is unlikely to recur at a particular location or was a natural event" (81 Federal Register 68217).

The ability for states to have measured ambient air quality data excluded from consideration when determining attainment of the standard is intended to minimize the burden on states. This practice is commonly referred to as an "exceptional event demonstration and is allowable under 40 CFR 50.1, 50.14, and 51.930. Due to the lower ozone NAAQS, states will need additional time and effort to demonstrate data has been influenced by exceptional events. Exceptional events occur more frequently in the West than other parts of the nation as a result of wild fires, dust events, or stratospheric intrusion events that most commonly affect high elevation locations in the West. As a result, the burden on western regulatory agencies to conduct exceptional event demonstrations is necessarily higher. Again the tools to conduct such analyses are limited and states often struggle to conduct analyses with insufficient data.

An additional western-specific challenge is the difficulty associated with modeling significant terrain features, such as the Sierra Nevada and Rocky Mountain ranges. Adequately characterizing topographical features is critical to be able to reproduce meteorological phenomena including mountain-valley flow, precipitation, and temperature inversions to name a few. Meteorological models are able to reproduce these phenomena with focus and effort (Taylor et al 2013a); however, standard "off the shelf" meteorological model data typically ingested into CMAQ and CAMx might not have the necessary accuracy to estimate western air quality, depending on the

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area and problem being investigated. Notably a majority of western oil and gas development and mining operations occur in areas of complex terrain. The ability of the meteorological model to reproduce meteorological patterns in complex terrain could significantly affect predicted ozone impacts and transport from these industries.

Importantly, some meteorological phenomena, such as wintertime temperature inversions, contribute to events with high ozone concentrations that have only occurred in the West. Regional air quality models have not been able to reproduce wintertime ozone formation (Taylor et al 2014a). The inability for regional models to characterize this unique phenomenon will cause significant challenges for western states and their industrial base. Most alarming is that no national effort is underway to resolve this significant capability gap in our toolset.

Available tools are most useful to assist with determining what sources, industries, or geographic areas are contributing to the ozone concentrations, and can assess the potential effectiveness of various control options. However, even this model function should be used with caution as there are several methods available to estimate source contributions and the selection of the method should depend on the question being investigated (Taylor et al 2017a). There are two common tools to estimate the contribution of sources to total ozone concentrations: Ozone Source Apportionment Technology (OSAT) and Anthropogenic Precursor Culpability Assessment (APCA). OSAT tracks ozone precursor emissions from different sources and locations. APCA however redistributes ozone produced from biogenic sources to anthropogenic sources, resulting in more ozone formation attributed to controllable sources. While results from APCA are helpful for control strategy assessments, results are biased high and, therefore, this technique should not be used to assess impacts from oil and gas or mining development for National Environmental Policy Act (NEPA) analyses, determine upwind areas contributing to nonattainment issues (referred to as "interstate transport"), or Section 126 Petitions. Finally, source apportionment results are appropriate to compare to each other (e.g., one control scenario is more or less effective than another); however, the total model concentrations are typically not accurate since estimates of future conditions necessarily have significant uncertainty (Taylor et al 2013b, Taylor et al 2014b, Taylor et al 2017a).

An additional flaw in common practices is reliance on results beyond the models' precision (Taylor et al 2017a). While the model reports ozone concentrations to several thousandths of a ppb, model error is typically on the order of several ppb. Regulatory processes that rely on model results should either incorporate model uncertainty into established thresholds and practices, or acknowledge and compensate for model limitations.

Lastly, one of the most significant challenges facing the regulatory community is the new requirement to assess potential impacts of ozone and secondary particulate matter as part of PSD permitting process (40 Code of Federal Regulations Part 51).

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Current guidance suggests a tiered analysis approach with increasing reliance on modeling tools for those sources with the potential for higher impacts (USEPA 2016). Notably, the USEPA has introduced the ability to screen out of ozone modeling requirements if the net emissions increase is below the Model Emission Rate Precursor (or MERPs) level. The difficulty is that the MERPS are highly variable geographically, depend on modeling data to establish, and potentially impossible to defend. The limited data available to establish MERPs indicate that in the West the MERP level can change by an order of magnitude or more for areas in close proximity to each other (USEPA 2016), making it very difficult to defend the use of MERPs if challenged. Furthermore, in the West, ozone is generally more sensitive to emissions of nitrogen oxides (NOx) than other areas in the nation. As a result, modeling demonstrations would be required for smaller increases of NOx in the West than other areas in the nation, thus western facilities are more likely to be required to model.

If required to model, "off the shelf" comprehensive datasets available for CMAQ and CAMx (commonly referred to as "model platforms") are limited in number or geographical extent and quickly become outdated. Given the difficulty CMAQ and CAMx have representing western air quality as discussed above, it is particularly unlikely that an "off the shelf" platform would be suitable for a given facility or area without significant modifications. It is even questionable whether or not the outputs from these available platforms would be approved for use as background conditions for SCICHEM. Finally, to use SCICHEM instead of CMAQ or CAMx, an additional step is required to demonstrate that the model is fit for the purposes of single source modeling (USEPA 2017).

SUMMARY

In summary, there are a host of challenges facing the West with regard to ozone, and many have ramifications for the minerals industry. These challenges range from the small amount of locally produced ozone that is within the jurisdiction of regulators (i.e., the difference between natural background concentrations and the level of the NAAQS is quite small in most western areas), to expected increasing levels of internationally generated ozone transported into the West, to known model limitations. Identifying the most effective emissions control strategies for areas with elevated ozone will prove to be difficult.

Available tools address these challenges with varying levels of skill and success. Tools are able to estimate the contribution of natural background ozone reasonably well. On the other hand, common practices when running models over simplify both the transport of international emissions and the simulation of emissions from countries bordering the U.S. Given the proximity of western states to border countries and the substantial contribution of international sources to total concentrations in the West, common practices magnify the limitations of the input data. Exceptional events occur more frequently in the West, increasing the burden on our regulatory agencies to conduct exceptional event demonstrations. Models

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can reproduce meteorological phenomena that occur in the West, albeit with focus and additional effort, thus increasing costs for western areas. Even with additional funds, current models cannot reproduce some western phenomena, such as wintertime ozone, leading to a regulatory quagmire for affected states and companies operating in areas with wintertime ozone.

When used correctly, available tools are able to determine what sources, industries, or geographic areas are contributing to ozone concentrations, and can estimate the potential effectiveness of various control strategies. However, application of the tools should be selected with care or results could be biased high, leading to over-estimates of impacts from the minerals industry. Tools that function as needed coupled with limitations that have been quantified, minimized and disclosed will be critical for western states as they navigate the path to ozone attainment.

For areas in attainment, following the new requirement to assess ozone as part of PSD permit applications will cause further complications as the provided "off ramps" (such as MERPs) are impractical when applied to areas in the West and will be difficult to defend.

CONCLUSION

In general, available tools are insufficient to address western ozone challenges. Available tools are adequate when tools are only necessary to definitively demonstrate what can be surmised intuitively by reasoned logic, knowledge of emissions, and familiarity with the current physical environment. Available tools also are able to provide comparative results as long as the absolute model results are not used.

With targeted effort improvements to our toolset are within reach. In particular, it is critical that USEPA recognize, quantify, and incorporate model uncertainty into guidance, regulatory analyses, and established thresholds, such as significant impact levels (SILs). Furthermore, international transport can be addressed in a rigorous manner by obtaining and processing non-U.S. sources with the same scrutiny as U.S. emissions, and using an ensemble approach to generate future year boundary conditions. In addition, targeted model developments are recommended to improve model skill for those phenomena that are of largest consequence for air quality conditions, such as wintertime ozone. Lastly, it is recommended that the technical basis for guidance documents is robust enough to withstand legal challenge to reduce the risk to facilties following USEPA guidance for PSD permitting actions.

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New Source Performance Standard OOOOa: Legal and Technical Implementation Issues and Lessons Learned

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Paper 4

New Source Performance Standard OOOOa: Legal and Technical Implementation Issues and Lessons Learned

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I. Introduction

One of the cornerstones of President Obama's environmental legacy was action on climate change. In 2008, he stated on the campaign trail: "Few challenges facing America and the world are more urgent than combating climate change." He proclaimed that "Washington has failed to show the same kind of leadership. That will change when I take office." Indeed it did. His administration moved forward on a number of climate initiatives. One of the final was the Environmental Protection Agency (EPA) adopting "new source performance standards" under the Clean Air Act (CAA) for upstream and midstream oil and gas production operations. These standards are the subject of this article, which reviews the march towards issuing the standards that began in the Summer of 2011 with a proposed regulation that, although not explicitly regulating methane, a high global warming potential compound, had the effect of reducing much of the methane emitted from certain parts of the oil and gas sector. We begin with an overview of those standards, move on to the direct regulation of methane under the same provision of the Clean Air Act, and discuss recent regulatory developments.

II. Background: EPA's 2012 New Source Performance Standards, Subpart OOOO.

A. Background: Why EPA Adopted Subpart OOOO.

The CAA includes a range of regulatory requirements applicable to a wide range of emissions from stationary and mobile sources. With respect to so-called criteria pollutants (ozone, NO_2, SO_2, lead, particulate matter, and carbon monoxide), EPA sets ambient, health-based standards.[2] Under CAA Section 111, Congress mandated technology-based emissions standards for specific source categories.[3] This article focuses on standards adopted pursuant to Section 111 for emissions sources in the oil and gas sector. CAA Section 111 requires the EPA Administrator to "publish (and from time to time thereafter . . . revise) a list of categories of

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[1] The author writes this article in his personal capacity. Any views expressed in this article are solely the author's own, and do not reflect the official views of Earthjustice and/or his any of Earthjustice's clients.
[2] *See generally* 42 U.S.C. § 7409.
[3] *See generally id.* § 7411.

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stationary sources" that, in his or her judgment, "cause[] or contribute[] significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare."[4] EPA published this list in 1979, and included Crude Oil and Natural Gas Production in its "priority list" of source categories which the Administrator determined cause or contribute significantly to air pollution that may endanger public health and welfare.[5]

Once a source category is listed, EPA must promulgate "Federal standards of performance for new sources within such category" following notice and comment—these standards are generally known as New Source Performance Standards (NSPS).[6] EPA promulgated two fairly narrow NSPS for the oil and gas sector in 1985.[7] Both standards applied only to onshore natural gas processing plants. One required leak detection and repair (LDAR) to reduce volatile organic compound (VOC) emissions from leaking.[8] The other standard set sulfur dioxide (SO_2) emissions limits.[9]

CAA § 112 includes a distinct set of requirements for EPA to set emissions standards for both new and existing sources of hazardous air pollutant (HAP) emissions that endanger human health.[10] CAA § 112 specifically allows EPA to "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 HAPs emissions from the wells "present more than a negligible risk of adverse effects to public health."[11] On July 16, 1992, EPA published its list of source categories, including "oil and natural gas production," that are subject to § 112.[12] In 1999, EPA promulgated National Emission Standards for Hazardous Air Pollutants (NESHAP) limiting emissions of several HAPs from facilities in the natural gas transmission and storage sector, including benzene, ethyl benzene, xylene, and toluene (collectively, BTEX) from process vents at glycol dehydrator units, storage tanks with flash emissions, and equipment leaks at natural gas processing plants.[13] The standards applied only to major sources in the upstream oil and gas sector, from the wellhead through the processing

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[4] *Id.* § 7411(b)(1)(A).
[5] 44 Fed. Reg. 49,222, 49,226 (Aug. 21, 1979).
[6] 42 U.S.C. § 7411(b)(1)(B).
[7] Jana B. Milford, *Out in Front? State and Federal Regulation of Air Pollution Emissions from Oil and Gas Production Activities in the Western United States*, 55 Nat. Resources J. 1, 8–9 (2014).
[8] 50 Fed Reg. 26,122, 26,122–23 (June 24, 1985). The regulations exempted equipment at processing plants located on Alaska's North Slope. *Id.*
[9] 50 Fed. Reg. 40,158, 40,161 (Oct. 1, 1985).
[10] *See generally* 42 U.S.C. § 7412(d)(6), (f)(2).
[11] *Id.* § 7412(n)(4)(B).
[12] 57 Fed. Reg. 31,576, 31,591 (July 16, 1992). EPA also determined that, although oil and gas production facilities can constitute "major" emissions sources for the purposes of § 112, it would not include "oil and gas wells (with its associated equipment), pipeline compressors, and pump stations" in its list of "area sources" subject to § 112(k). *Id.* at 31,586–87. EPA later added natural gas transmission and storage to its source category list. 63 Fed. Reg. 7155, 7160 (Feb. 12, 1998).
[13] 64 Fed. Reg. 32,610, 32,613 (June 17, 1999).

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plant.[14] EPA deferred setting emissions standards for BTEX emissions from triethylene glycol dehydrator units at area sources in the oil and gas sector until 2007.[15]

After EPA sets a NSPS, the CAA requires that "[t]he Administrator shall, at least every 8 years, review and, if appropriate, revise such standards following the procedure required by this subsection for promulgation of such standards."[16] Similarly, after EPA sets a NESHAP, Section 112(d)(5) states that EPA is to "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 year years."[17]

EPA did not meet the eight-year deadlines for either NSPS or NESHAPs for the oil and gas sector. Accordingly, on July 2, 2008, two conservation groups, San Juan Citizens Alliance and WildEarth Guardians, sent EPA a notice of their intent to sue the agency for its failure to meet the eight-year deadlines.[18] After EPA failed to take action, the groups sued EPA for its failure to meet the statutory eight-year deadline.[19] Recognizing that it had violated federal law, EPA entered into a consent decree with the plaintiffs, and agreed to fulfill its obligations to review its current NSPS and NESHAP standards for the oil and gas sector, and to determine whether or not it would revise the NSPS and NESHAPs for the oil and gas sector by January 31, 2011.[20]

B. EPA Adopts Subpart OOOO.

On August 23, 2011, EPA proposed to update both the NSPS and NESHAPs for the oil and gas sector.[21] After receiving public comments, EPA promulgated its final Rule on August 16, 2012.[22] Because the final NSPS regulations are codified in 40 C.F.R. part 60 subpart OOOO, the 2012 Rule is often referred to as "OOOO" or "quad-O."[23]

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[14] *Id.* The CAA defines "major sources" as sources that emit or have potential to emit greater than 10 tons per year (tpy) of any one HAP, or more than 25 tpy of any combination of HAPs. 42 U.S.C. § 112(a)(1).
[15] 72 Fed. Reg. 26-01, 27–28 (Jan. 3, 2007).
[16] 42 U.S.C. § 7411(b)(1)(B).
[17] *Id.* § 7412(d)(6); *see also* S. Rep. No. 101-228, at 148, 1990 U.S.C.C.A.N. at 3553 ("EPA is to tighten the emission limitation" if threats to public health or the environment "remain[] after technology standards are implemented").
[18] Complaint ¶ 4. The Notice Letter was in fact sent by Rocky Mountain Clean Air Action, a predecessor-in-interest to WildEarth Guardians. *Id.* Rocky Mountain Clean Air Action merged into WildEarth Guardians in September 2008. *Id.* ¶ 5.
[19] Complaint at ¶¶ 74–79, *WildEarth Guardians v. Johnson*, No. 1:09-cv-00089-CKK (D.D.C. Jan. 14, 2009), ECF No. 1.
[20] *See* Order at 1, *WildEarth Guardians v. Jackson*, No. 1:09-cv-00089-CKK (D.D.C. Feb. 4, 2010), ECF No. 24 (granting consent decree); Consent Decree at ¶¶ 3–8, *WildEarth Guardians v. Jackson*, No. 1:09-cv-00089-CKK (D.D.C. Feb. 2, 2014).
[21] 76 Fed. Reg. 52,738, 52,738 (Aug. 23, 2011).
[22] 77 Fed. Reg. 49,490 (Aug. 16, 2012).
[23] *See* 40 C.F.R. pt. 60 subpt. OOOO.

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The 2012 Rule represented a significant expansion of EPA's prior NSPS for the oil and gas sector, though the NESHAPs remained largely unchanged. Although EPA had previously regulated VOC emissions from equipment leaks in processing plants, it extended its VOC emission standards to other equipment within the oil and gas sector.[24] EPA explained that "the currently listed Oil and Natural Gas source category covers all operations for which we are setting standards. That the original NSPS's only set standards for a limited set of sources within the category cannot be taken to imply that other units were not within the scope of this original listing."[25] EPA also updated its preexisting SO_2 emissions requirements for sweetening units at gas processing plants.[26]

The NSPS portion of the 2012 Rule applies to "well completions, pneumatic controllers, equipment leaks from natural gas processing plants, sweetening units at natural gas processing plants, reciprocating compressors, centrifugal compressors and storage vessels which are constructed, modified or reconstructed after August 23, 2011."[27] It specifically requires those new and modified sources to do the following, by October 15, 2012, unless otherwise noted:[28]

- Hydraulically fractured gas wells: *Until January 1, 2015, route flowback emissions to completion combustion device; after January 1, 2015, use reduced emission completions and route flowback emissions to completion combustion device.*[29]
- Hydraulically fractured wildcat, delineation, and low-pressure wells: *Route flowback emissions to completion combustion device.*[30]
- Wet seal centrifugal compressors: *reduce emissions by 95%.*[31]
- Reciprocating compressors: *change rod packing after 26,000 hours or after 36 months.*[32]
- Continuous bleed natural pneumatic controllers in natural gas processing plants: *natural gas bleed rate of zero.*[33]
- Continuous bleed natural pneumatic controllers with a bleed rate > 6 standard cubic feet per hour (scfh) between wellhead and natural gas processing plant or oil pipeline: *Natural gas bleed rate < 6 scfh by October 15, 2013.*[34]
- Storage vessels with VOC emissions ≥ 6 tpy: *reduce emissions by 95%.*[35]
- Equipment leaks at onshore natural gas processing plants: *conduct leak detection and repair.*[36]

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[24] 77 Fed. Reg. at 49,497.
[25] *Id.* at 49,514.
[26] *Id.* at 49,498.
[27] *Id.* at 49,493.
[28] *See id.* at 49,497.
[29] 40 C.F.R. § 60.5375.
[30] *Id.* § 60.5375(f).
[31] *Id.* § 60.5380.
[32] *Id.* § 60.5385.
[33] *Id.* § 60.5390(b).
[34] *Id.* § 60.5390(c).
[35] *Id.* § 60.5395.
[36] *Id.* § 60.5407

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As part of the 2012 Rule, EPA also revised its NESHAPs for the oil and gas source sector. It set BTEX emission limits for small glycol dehydrators—a previously unregulated source.[37] EPA also excluded revised the definition of storage vessels for the purposes of the NESHAPs, revised its definition of "leak," and removed a startup/shutdown/malfunction exemption.[38]

C. Objections to Subpart OOOO.

Multiple parties filed lawsuits challenging the 2012 Rule in the D.C. Circuit Court of Appeals. The plaintiffs, and the original case numbers of their lawsuits, were:

- American Petroleum Institute (API) (No. 12-1405);
- Gas Processors Association (GPA) (No. 12-1406);
- Independent Petroleum Association of America, Independent Oil and Gas Association of West Virginia, Inc., Kentucky Oil & Gas Association, Inc., Pennsylvania Independent Oil & Gas Association, Ohio Oil and Gas Association, Illinois Oil and Gas Association, and Indiana Oil and Gas Association (collectively, IPAA) (No. 12-1408);
- Natural Resources Defense Council, Environmental Defense Fund, Sierra Club, Groups Against Smog and Pollution (GASP), and Clean Air Council (collectively, 2012 Environmental Coalition) (No. 12-1409);
- California Communities Against Toxics, Clean Air Council, Coalition For A Safe Environment, Desert Citizens Against Pollution, Natural Resources Defense Council, and Sierra Club (collectively, NESHAP Coalition) (No. 12-1410);
- Texas Oil and Gas Association (TXOGA) (No. 12-1411); and
- Western Energy Alliance (WEA) (No. 12-1412).

A number of industry groups filed Petitions for Reconsideration with EPA, requesting that the Agency reconsider the 2012 Rules:

- Treatment of venting during initial flowback operations;
- Treatment of leasehold appraisal wells;
- Treatment of and accounting for storage vessels;
- Failure to provide an appropriate phase-in period for storage vessels;
- Treatment of flare control devices;
- Categorization of certain vapor recovery units as control devices;
- Determination of a VOC emissions threshold for storage vessels;
- Application of Title V annual report certification requirements to affected facilities;
- Definition of "well site;"
- Application of new source review permit requirements to affected facilities;
- Definition of "gas well;"

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[37] 40 C.F.R. § 63.765; *see also* 77 Fed. Reg. at 49,501.
[38] 77 Fed. Reg. at 49,501.

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- Definition of "low pressure gas well" for purposes of completion combustion to reduce VOCs;
- Analysis of economic impact and compliance burden for smaller producers;
- Failure to follow the procedural requirements of CAA § 111(b), requiring Respondents to make an endangerment finding prior to publishing proposed regulations;
- Failure to follow the procedural requirements of CAA § 111(f)(3), requiring Respondents to consult with State Governors prior to promulgating regulations for New Source Performance Standards.[39]

By contrast, the 2012 Environmental Coalition was concerned that the 2012 Rule did not go far enough to protect public health and the environment. The 2012 Environmental Coalition filed a statement of issues in its lawsuit, arguing that the following aspects of the rule were arbitrary, capricious, and contrary to law:

- Failure to set performance standards for liquids unloading;
- Failure to regulate oil wells;
- Reduced emission completion requirements;
- Pneumatic controller requirements;
- Failure to regulate VOCs from existing sources and failure to require states to submit state implementation plans regulating VOCs from existing sources;
- Failure to regulate methane emissions from new sources; and
- Failure to regulate methane emissions from existing sources or require states to submit SIPs regulating methane emissions from existing sources.[40]

The 2012 Environmental Coalition also filed a Petition for Reconsideration with EPA, requesting reconsideration of the following issues:

- EPA's failure to address liquids unloading;
- EPA's failure to address oil well completions;
- EPA's failure to address "significant enforceability & compliance issues":
    - Unclear language about RECs (40 CFR § 50.5375(a)(1));

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[39] *See, e.g.*, TXOGA, Petition for Reconsideration and Request for Stay re: Final Rule Published at 77 Fed. Reg. 49,490 (Aug. 16, 2012), entitled "Oil and Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews; Final Rule," Docket No. EPA-HQ-OAR-2010-0505, RIN 2060-AP76 (Oct. 15, 2012); API, Petition for Reconsideration and Request for Stay re: Final Rule Published at 77 Fed. Reg. 49,490 (Aug. 16, 2012), entitled "Oil and Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews; Final Rule," Docket No. EPA-HQ-OAR-2010-0505, RIN 2060-AP76 (Oct. 15, 2012); IPAA *et al.*, Petition for Reconsideration and Request for Stay re: Final Rule Published at 77 Fed. Reg. 49,490 (Aug. 16, 2012), entitled "Oil and Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews; Final Rule," Docket No. EPA-HQ-OAR-2010-0505, RIN 2060-AP76 (Oct. 15, 2012).

[40] Non-Binding Statement of Issues to Be Raised by 2012 Envt'l Coal. at 1–3, *Am. Petroleum Inst. v. EPA*, No. 12-1409 (D.C. Cir. Nov. 16, 2012), ECF No. 1405564.

- Unclear language about pneumatic controllers (40 CFR § 60.5390(a)); and
- EPA's failure to regulate methane emissions.[41]

Generally, the 2012 Environmental Coalition's objections to the 2012 Rule can be summarized into four categories. First, the Coalition argued that EPA should have regulated methane emissions from the oil and gas sector, instead of only regulating VOC emissions. Second, it argued that EPA should have regulated both existing sources within the oil and gas sector, instead of only new sources. Third, it argued that EPA should have regulated emissions from not only gas well completions, but also oil well completions. Finally, it argued that EPA should have extended its regulation to an additional process that falls within the oil and gas source category—liquids unloading.

The NESHAP Coalition raisedobjections in a reconsideration petition with EPA and with the Court, addressing the 2012 Rule's inadequate health protections for local communities' exposure to hazardous air pollutants from oil and gas operations, including the lack of regulation at all for many sources of these emissions, as well as:

- EPA should have set standards for HAPs besides BTEX emitted from small glycol dehydrators;
- EPA should have replaced its benzene limit of 0.9 milligrams (mg)/year for large glycol dehydrators with a lower standard;
- EPA failed to review its "no control" emission standards for sources within the oil and gas production, transmission, and storage source categories to determine if was necessary to update them;
- EPA failed to evaluate the health risk "to the individual most exposed to emissions from a source" based on the entire source category, and instead evaluated the health risk posed by only one part of the source;
- EPA failed to meaningfully respond to comments showing additional unregulated emissions points within the oil and gas sector;
- EPA failed to update its NESHAPs to a sufficiently protective level; and
- EPA impermissibly considered cost in updating the NESHAPs.[42]

D. History of Litigation Over Subpart OOOO.

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[41] *See* Clean Air Council et al., Petition for Reconsideration re: Final Rule Published at 77 Fed. Reg. 49,490 (Aug. 16, 2012), entitled "Oil and Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews; Final Rule," Docket No. EPA-HQ-OAR-2010-0505, RIN 2060-AP76 (Oct. 15, 2012).

[42] Non-Binding Statement of Issues to Be Raised by Envt'l Pet'rs in Case No. 12-1410 at 1–3, *Am. Petroleum Inst. v. EPA*, No. 12-1410 (D.C. Cir. Nov. 16, 2012), ECF No. 1405559; *see also* Cal. Cmtys. Against Toxics, et al., *Petition for Reconsideration of Oil and Natural Gas Sector: National Emission Standards for Hazardous Air Pollutants Reviews; Final Rule, 77 Fed. Reg. 49,490 (Aug. 16, 2012), 40 C.F.R. Parts 63, Subparts HH & HHH, Dkt. ID No. EPA-HQ-OAR-2010-050* at 6–30 (Oct. 15, 2012)

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All cases challenging the 2012 Rule, D.C. Cir. Nos. 12-1405, 12-1406, 12-1407, 12-1408, 12-1409, 12-1410, 12-1411, 12-1412, and 12-1417 were consolidated under lead case 12-1405 on October 17, 2016.[43] Most of the industry groups intervened in support of EPA in the environmental groups' challenges, and the 2012 Environmental Coalition intervened in support of EPA in the industry groups' challenges.

The environmental coalition filed its statement of issues and other preliminary documents on November 16, 2012.[44] The industry petitioners did not file their statement of issues because EPA filed a joint motion to extend the filing deadline, which the court granted.[45] The deadline was later extended several times. In early 2013, two groups petitioners, the State of Texas and the Domestic Energy Producers Alliance, voluntarily dismissed their cases.[46]

In January 2013, EPA moved for the court to sever the NSPS and NESHAPs litigation.[47] The court granted the motion on April 3, 2013.[48] The consolidated litigation over the NSPS was given a new case number, 13-1108, and the NESHAP remained consolidated under 12-1405.[49] As discussed in more detail below, the litigation has been held in abeyance since April 2013.[50]

III. EPA's Initial Reconsideration of Subpart OOOO.

A. EPA's 2013 Reconsideration of Subpart OOOO's Storage Tank Provisions.

EPA granted reconsideration of industry's reconsideration petitions regarding storage tanks. As a result of the reconsideration, EPA relaxed the storage tank requirements by allowing for a slower phase-in period, but did relax the requirements to the same extent as it had initially proposed.[51] A variety of industry groups sued on November 22, 2013:

- API (No. 13-1289);
- GPA (No. 13-1290);
- TXOGA (No. 13-1292);
- IPAA (No. 13-1293); and
- WEA (No. 13-1294).

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[43] Order at 1, *API v. EPA*, No. 12-1405 (D.C. Cir. Oct. 17, 2012), ECF No. 1400048.
[44] Non-Binding Statement of Issues to Be Raised by 2012 Envt'l Coal. at 1–3, *Am. Petroleum Inst. v. EPA*, No. 12-1409 (D.C. Cir. Nov. 16, 2012), ECF No. 1405564.
[45] Order at 1, *API v. EPA*, No. 12-1405 (D.C. Cir. Nov. 27, 2012), ECF No. 1406938.
[46] Order at 1, *Domestic Energy Producers All. v. EPA*, No. 12-1407 (D.C. Cir. Feb. 12, 2014), ECF No. 1479699; Order at 1, *Texas v. EPA*, No. 12-1417 (D.C. Cir. Jan. 17, 2013), ECF No. 1415829.
[47] Unopposed Mot. for Resp't EPA to Sever the Challenges to the NSPS & NESHAP Rules, to Hold Litigation in Abeyance, & to Govern Further Proceedings, *API v. EPA*, No. 12-1405 (D.C. Cir. Jan. 16, 2013), ECF No. 1415624.
[48] Order at 1, *API v. EPA*, No. 12-1405 (D.C. Cir. Apr. 3, 2013), ECF No. 1428003.
[49] *Id.*
[50] *Id.*; *see also infra* pp. ___.
[51] 78 Fed. Reg. 58,416 (Sept. 23, 2013).

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The cases were consolidated on December 3, 2013.[52] The court granted EPA's unopposed motion to hold the cases in abeyance on December 27, 2013.[53] The 2012 Environmental Coalition moved to intervene on December 23, 2013.[54] The court granted the motion on August 6, 2014.[55] The same day, the court granted EPA's unopposed motion to consolidate the cases into the 2012 Rule litigation, also under lead case No. 13-1108.[56] The cases have remained in abeyance since then.

B. EPA's 2014 Reconsideration of Other Subpart OOOO Provisions.

EPA also granted reconsideration of several other issues that industry raised with the 2012 Rule. EPA finalized a rule addressing these issues on December 31, 2014.[57] The issues addressed include:

- Distinct definitions of and requirements for emissions control during initial flowback stage and separation flowback stages;
- Changed definition of "low pressure gas well";
- Several technical changes to storage tank regulations, including clarifying what meets definition of 6 tpy emissions threshold; requirements for checking thief hatches; reporting requirements; expanding definition of storage vessel to include vessels installed and connected in parallel; and status of tanks that are no longer in service;
- Allowing regulation of reciprocating compressors via capture instead of just rod packing;
- Technical changes to clarify which gas processing facilities are covered; and
- Distinguishing between a "responsible official" for purposes of NSPS reporting and Title V reporting requirements.[58]

Once again, several parties sued:

- IPAA (No. 15-1040);
- GPA (No. 15-1041);
- TXOGA (No. 15-1042);
- WEA (No. 15-1043); and
- API (No. 15-1044).

The court consolidated the cases on March 4, 2015.[59] The 2012 Environmental Coalition, with the exception of GASP, moved to intervene on March 30, 2015, and the court granted their motion on April 22, 2015.[60]

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[52] Order at 1, *API v. EPA*, No. 13-1289 (D.C. Cir. Dec. 3, 2013), ECF No. 1468635.
[53] Order at 1, *API v. EPA*, No. 13-1289 (D.C. Cir. Dec. 27, 2013), ECF No. 1472724.
[54] Mot. to Intervene in Supp. of Resp'ts, *API v. EPA*, No. 13-1289 (D.C. Cir. Dec. 23, 2013), ECF No. 1472149.
[55] Order at 1, *API v. EPA*, No. 13-1289 (D.C. Cir. Aug. 6, 2014), ECF No. 1506440.
[56] Order at 1, *API v. EPA*, No. 13-1108 (D.C. Cir. Aug. 6, 2014), ECF No. 1506468.
[57] 79 Fed. Reg. 79,018 (Dec. 31, 2014).
[58] *Id.* at 79,019.

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The petitioners (except for Western Energy Alliance) filed statements of issues in this case. Every petitioner challenged the definition of "storage vessel." Petitioner GPA argued that EPA expanding the definition of storage tank to include tanks installed and connected in parallel was unreasonable and not a logical outgrowth of the proposed rule.

All petitioners except TOGA also challenged the rule's effective date. Petitioner GPA argued that the rule was arbitrary and capricious "[b]ecause EPA adhered to the effective date of December 31, 2014, notwithstanding its substantial administrative reconsideration of the rule," and "[b]ecause EPA failed to establish a clear and reasonable timeframe for modified or reconstructed storage tanks that trigger application of the NSPS requirements to achieve compliance."

Other issues were raised by fewer petitioners. Only IPAA raised the issue of whether EPA's definition of "low pressure well" was arbitrary and capricious. Only GPA raised the issues of whether the rule was arbitrary and capricious because EPA required that combustion devices be maintained in a "leak free condition" without defining that term, and if the monitoring requirements for reciprocating compressor rod packing emissions are infeasible.

On April 23, 2015, the court granted the parties' motion to hold the cases in abeyance. According to EPA's most recent status report, filed on July 19, 2016, the parties have 30 days from when EPA completes reconsideration proceedings to file motions to govern.

C. Reconsideration Issues Not Resolved by Either the 2013 or 2014 Proceedings.

EPA's 2013 and 2014 reconsideration processes did not resolve all of the issues raised in petitions for reconsideration of the 2012 Rule. As discussed below, some of those issues were resolved by the 2016 rulemaking. For other outstanding issues, EPA published its final decision denying the remaining reconsideration petitions filed in response to the 2012 Rule, the 2013 Reconsideration, and the 2014 Reconsideration on August 10, 2016.[61]

IV. EPA's 2016 New Source Performance Standards, Subpart OOOOa.

A. What Subpart OOOOa Does, and How It Is Different from Subpart OOOO.

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[59] Order at 1, *Indep. Petroleum Ass'n of Am. v. EPA*, No. 15-1040 (D.C. Cir. Mar. 4, 2015), ECF No. 1540629.

[60] Order at 1, *Indep. Petroleum Ass'n of Am. v. EPA*, No. 15-1040 (D.C. Cir. Apr. 22, 2015), ECF No. 1548697.

[61] 81 Fed. Reg. 52,778, 52,778 (Aug. 10, 2016). EPA's denial of reconsideration applied only to issues raised with respect to the 2012 NSPS Rule and its subsequent revisions in 2013 and 2014. It did not deny any issues raised for reconsideration with respect to the 2012 NESHAP Rule. *See* Letter from Gina McCarthy, Adm'r, EPA, to Timothy Ballo et al., Earthjustice (Sept. 26, 2016).

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EPA proposed to amend the 2012 NSPS on September 18, 2015.[62] After receiving public comment, it finalized the 2016 NSPS Rule on June 3, 2016.[63] Because the 2016 Rule both amended the 2012 Rule and added a new subpart to 40 C.F.R. part 60—subpart OOOOa—it is often referred to as "OOOOa" or "quad-Oa."[64]

The 2016 Rule expands upon the 2012 Rule in several ways. First, it regulates several processes and equipment types that were not regulated in 2012, including oil well completions, pneumatic pumps, and fugitive emissions from well sites and compressor stations.[65] Second, it regulates methane emissions from sources whose VOC emissions were already regulated by the 2012 Rule.[66] Third, it expands regulations throughout the entire oil and gas source category for some types of equipment that were only regulated at specific points in the production process under the 2012 Rule: pneumatic controllers, centrifugal compressors, and reciprocating compressors.[67]

The 2016 Rule requires the following facilities that were constructed, modified, or reconstructed after September 18, 2015 to adopt the following emissions control strategies by August 2, 2016, unless otherwise noted:[68]

- Wet seal centrifugal compressors not at well sites: *reduce emissions by 95%.*[69]
- Reciprocating compressors not at well cites: *change rod packing after 26,000 hours or after 36 months.*[70]
- Pneumatic controllers at natural gas processing plants: *zero bleed rate.*[71]
- Pneumatic controllers not at natural gas processing plants: *Natural gas bleed rate <6 scfh.*[72]

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[62] 80 Fed. Reg. 56,593 (Sept. 18, 2015). EPA also proposed a suite of three other related regulations the same day: a source determination rule for determining when to aggregate oil and gas area sector emission sources, 80 Fed. Reg. 56,579 (Sept. 18, 2015), a federal implementation plan (FIP) for minor oil and gas sector sources in Indian Country, 80 Fed. Reg. 56,554 (Sept. 18, 2015), and Control Technique Guidelines (CTGs) identifying Reasonably Available Control Technologies (RACT) for oil and gas sector sources in ozone nonattainment areas, 80 Fed. Reg. 56,593 (Sept. 18, 2015). EPA finalized the Source Determination Rule, 81 Fed. Reg. 35,944 (June 3, 2016), and the Indian Country Minor Source FIP, 81 Fed. Reg. 35,622 (June 3, 2016), the same day it finalized NSPS OOOOa. EPA finalized the CTGs on October 27, 2016. 81 Fed. Reg. 74,798 (Oct. 27, 2016). This paper addresses the CTGs in greater detail below. *See infra* pp. ___.
[63] 81 Fed. Reg. 35,824 (June 3, 2016).
[64] *See* 40 C.F.R. pt. 60 subpt. OOOOa.
[65] 81 Fed. Reg. at 35,825.
[66] *Id.*
[67] *Id.*
[68] *See generally id.* at 35,826
[69] 40 C.F.R. § 60.5380a.
[70] *Id.* § 60.5385a.
[71] *Id.* § 60.5390a(b).
[72] *Id.* § 60.5390a(c).

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- Pneumatic pumps at natural gas processing plants: *zero natural gas emissions.*[73]
- Pneumatic pumps at well sites: *95% control if there is an existing control device on site, unless routed to an existing control that achieves less than 95% reductions or it is technically infeasible at a non-greenfield site.*[74]
- Subcategory 1 well completions: non-wildcat and non-delineation wells: *Reduced Emission Completions; during initial flowback route to a storage vessel or completion vessel; during separation flowback, capture, re-inject, use onsite, or combust gas, all liquids must be routed to a storage or completion vessel or be re-injected. Must have a separator onsite during entire flowback period.*[75]
- Subcategory 2 well completions: exploratory and delineation wells and low pressure wells: *Not required to have a separator on site. Either route all flowback to a completion combustion device with a continuous pilot light (flare) or capture and use a separator; combustion not required if a fire hazard or if it would negatively impact tundra/permafrost.*[76]
- Fugitive emissions from well sites: *semi-annual LDAR using optical gas imaging (OGI), with an initial survey by no later than June 3, 2017.*[77]
- Fugitive emissions from compressor stations: *quarterly LDAR using OGI, with an initial survey by no later than June 3, 2017.*[78]
- Equipment leaks at natural gas processing plants: *Same LDAR requirements as 2012 Rule.*[79]

B. Objections to Subpart OOOOa.

As in 2012, numerous parties filed petitions for review challenging the 2016 Rule in the D.C. Circuit:

- North Dakota (ND) (No. 16-1242);
- Texas, Texas Railroad Commission, and Texas Commission on Environmental Quality (collectively, TX or Texas) (No. 16-1257);
- Independent Petroleum Association of America, American Exploration & Production Council, Domestic Energy Producers Alliance, Eastern Kansas Oil & Gas Association, Illinois Oil and Gas Association, Independent Oil and Gas Association of West Virginia, Inc., Indiana Oil and Gas Association, International Association of Drilling Contractors, Kansas Independent Oil & Gas Association, Kentucky Oil & Gas Association, Michigan Oil and Gas Association, National Stripper Well Association, North Dakota Petroleum Council, Ohio Oil and Gas Association, Oklahoma Independent Petroleum Association, Pennsylvania Independent Oil & Gas Association, Texas Alliance of Energy Producers,

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[73] *Id.* § 60.5393a(a).
[74] *Id.* § 60.5393a(b).
[75] *Id.* § 60.5375(a).
[76] *Id.* § 60.5375(f), (g).
[77] *Id.* § 60.5397a.
[78] *Id.*
[79] *Id.* § 60.6400a.

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Texas Independent Producers & Royalty Owners Association, and West Virginia Oil and Natural Gas Association (collectively, IPAA) (No. 16-1262);

- Interstate Natural Gas Association of America (INGAA) (No. 16-1263);
- West Virginia, Alabama, Arizona, Kansas, Kentucky, Louisiana, Michigan Attorney General Bill Schuette, Montana, Ohio, Oklahoma, South Carolina, Wisconsin, Kentucky Energy & Environment Cabinet, and North Carolina Department of Environmental Quality (collectively, WV or West Virginia) (No. 16-1264);
- Western Energy Alliance (WEA) (No. 16-1266);
- GPA Midstream Association (GPA) (No. 16-1267);
- Texas Oil and Gas Association (TOGA) (No. 16-1269); and
- American Petroleum Institute (API) (No. 16-1270).

The State and Industry petitioners filed their statements of issues in August and September of 2016. The petitioners argue that the 2016 Rule is arbitrary, capricious, and contrary to law because:

- A general claim that the "final rule" is arbitrary, capricious, an abuse of discretion, not in accordance with the law, or unsupported by the administrative record: *ND, WV, GPA*
- Failure to make an endangerment finding for the oil and gas source category: *ND, TX, WEA, TXOGA, WV, IPAA, GPA*;
- Failure to make an endangerment finding for methane: *TX, API, WEA, WV*;
- Endangerment finding that EPA made is unlawful because EPA did not define "significant contribution": *API, IPAA*;
- Choice to regulate methane was arbitrary and capricious and violated CAA because it will not achieve additional emission reductions: *IPAA*;
- Unlawfully expanding the source category: *TX, WEA, TXOGA, API, IPAA*;
- Idea that EPA need only have a "rational basis" to establish a performance standard for emissions of any pollutant from a source already regulated under § 111: *WV*;
- EPA's cost-benefits analysis was unreasonable (ie: failure to properly consider burden on state agencies and/or oil and gas industry): *TX, WEA, INGAA, WV, IPAA*;
- The 2016 Rule raises federalism concerns (Tenth Amendment, commandeering, failure to consider state programs, violating CAA cooperative federalism structure due to lack of meaningful mechanism for recognizing existing state programs): *ND, WEA, WV*;
- EPA's use of a "white paper" process to solicit public feedback on topics eventually covered by the 2016 Rule: *ND*;
- Regulation of oil wells: *ND*;
- Regulation of existing sources violates § 111(b): *WEA*;
- Requirement to repair leaks during unscheduled or emergency compression shutdown or blowdown: *INGAA, GPA*;

- "improperly finalized requirements as outlined in TXOGA's petition for reconsideration": *TXOGA*.[80]

Aside from the above-listed issues, GPA raised 24 additional issues arguing that specific components of the rule are arbitrary and capricious. Specifically, GPA argues that the following components of the 2016 Rule are arbitrary, capricious, or contrary to law:

- Quarterly LDAR for compressors & semi-annual LDAR for well sites;
- Burdens of LDAR relative to benefits of fugitive emissions reductions;
- Recordkeeping requirements (training & experience of OGI operators; type of equipment used in survey; wind speed, temperature, and sky conditions);
- Different repair thresholds for leaks detected by OGI & Method 21 monitoring;
- 0 degree Farenheit waiver for quarterly LDAR monitoring is too low;
- Definition of "compressors" includes Vapor Recovery Unit compressors;
- Including compressors in definition of "fugitive emissions components" even though other parts of the rule regulate fugitive emissions from compressors;
- Definition of "fugitive emissions component" is ambiguous;
- Definition of "well site" potentially includes equipment owned by contractors outside the control of well site operators;
- EPA failed to respond to comments re: cost-effectiveness of LDAR for midstream operators;
- Compressor stations still within definition of "affected facility" if they fall below Rule's affected source thresholds;
- Equation in definition of capital expenditure is not representative of current economic conditions;
- Reconstruction notification requirements apply to collection of fugitive emissions components at a compressor station;
- Compressor stations and well sites have insufficient time to conduct initial LDAR monitoring;
- Compressor station and well site owners have insufficient time to repair leaks after LDAR monitoring;
- Cost-benefit analysis for LDAR underestimates costs and overestimates benefits;

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[80] *See* Non-Binding Statement of Issues of TXOGA, *Texas Oil and Gas Ass'n v. EPA*, No. 16-1269 (D.C. Cir. Sept. 6, 2016), ECF No. 1633996; Statement of Issues to Be Raised by North Dakota, *North Dakota v. EPA*, No. 16-1242 (D.C. Cir. Aug. 22, 2016), ECF No. 1631518; Non-Binding Statement of Issues by Texas *et al.*, *Texas et al. v. EPA*, No. 16-1257 (D.C. Cir. Aug. 29, 2016), ECF No. 1632642; Non-Binding Statement of Issues to Be Raised by WEA, *Western Energy Alliance v. EPA*, No. 16-1266 (D.C. Cir. Sept. 1, 2016), ECF No. 1633507; Non-Binding Statement of Issues of API, *API v. EPA*, No. 16-1270 (D.C. Cir. Sept. 6, 2016), ECF No. 1634081; Non-Binding Statement of Issues of INGAA, *INGAA v. EPA*, No. 16-1263 (D.C. Cir. Sept. 7, 2016), ECF No. 1634119; Non-Binding Statement of Issues to Be Raised by West Virginia, *et al.*, *West Virginia, et al. v. EPA*, No. 16-1264 (D.C. Cir. Sept. 7, 2016), ECF No. 1634136; Non-Binding Statement of Issues to Be Raised by GPA, *GPA Midstream Ass'n v. EPA*, No. 16-1267 (D.C. Cir. Sept. 7, 2016), ECF No. 1634414.

- EPA failed to clarify if certain notification requirements apply to pneumatic controllers, centrifugal compressors, reciprocating compressors, storage vessels, and fugitive emissions captures;
- VRUs must be operational even when associated storage vessel is not in service;
- EPA failed to clarify if 95% emissions reduction requirement for compressors, pneumatics, and storage vessels must be met on a continuous or average basis;
- Requirement for storage tanks with less than 4 tpy VOC emissions to determine uncontrolled actual VOC emissions rate on a monthly rather than annual basis;
- 40 C.F.R. §§ 60.5400a(e) & 60.5422a(a) are vague and failure to provide notice of which parts of 40 C.F.R. § 60.487a are applicable;
- Recordkeeping requirements do not include some cross-references;
- Definition of "certifying" and "responsible" official include references to permits even though § 111 is not a permitting program;
- EPA failed to clarify starting point for when reciprocating compressor facilities must measure hours or months of operation (ie: initial startup, date of proposed rulemaking, or date of last rod packing replacement).[81]

In addition, a number of industry groups filed Petitions for Reconsideration with EPA, requesting reconsideration of the following issues:

- The requirements for certification by professional engineer for closed vent systems and for pneumatic pump technical infeasibility determination at brownfield sites;
- The failure to adequately define "greenfield" site;
- Clarification is required regarding location of separator for well completion operations;
- The requirements to document and report claims of technical infeasibility related to capturing of emissions during a well completion;
- Treatment of flares for control of Subpart OOOO affected facilities;
- Clarification is required for boilers and process heaters used to reduce emissions, particularly as used for pneumatic pumps;
- The compliance assurance requirements for a closed vent system routing emissions from a pneumatic pump to a control device;
- There should be a pathway to reduce LDAR survey frequency to annual for well sites and semi-annual for compressor stations;
- There should be an exemption from LDAR requirements for new low production wells and a pathway to discontinue LDAR at new wells that become low production wells;
- Oil wells should be exempt from the LDAR requirements;
- The timing of LDAR Surveys should be updated to allow for integration into existing LDAR programs;
- The LDAR requirements must include adequate provisions to account for extreme weather in cold climates;
- There should be a simple process for determining State Equivalency for the LDAR requirements at the State level;

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[81] Non-Binding Statement of Issues to Be Raised by GPA, *GPA Midstream Ass'n v. EPA*, No. 16-1267 (D.C. Cir. Sept. 7, 2016), ECF No. 1634414.

- The definition of modification for LDAR should only include wells that are hydraulically refractured in combination with the installation of new production equipment on site;
- The digital photo/video requirements associated with LDAR;
- Excessive monitoring plan observation path and sitemap requirements;
- Delay of Repair Provisions require additional clarity;
- Issues with Compliance Demonstration Requirements for Combustion Devices and Flares Not Addressed;
- Requiring use of the Compliance and Emissions Data Reporting Interface (CEDRI) if EPA releases the electronic reporting form 90 days prior to the report due date is insufficient for compliance;
- The definition of Capital Expenditure should be removed in § 60.5430 of Subpart OOOO and the OOOOa procedure for calculating capital expenditure should be revised;
- EPA should clarify that coil tubing cleanouts and screenouts are not subject to the provisions in § 60.5430a;
- EPA should increase the 0° Fahrenheit temperature threshold for waiving quarterly leak detection monitoring to 32° Fahrenheit;
- EPA should revise the definition of well site to explicitly exclude equipment owned and operated by midstream operators;
- EPA should remove compressors from the definition of fugitive emissions components;
- EPA should add "the collection of fugitive emission components" at a compressor station to the list of sources that are exempt from reconstruction notification requirements under 40 C.F.R. § 60.15.[82]

Although no environmental organizations sought judicial review of the 2016 Rule in the D.C. Circuit, several environmental organizations filed a petition for reconsideration raising the following issues:

- EPA's failure to require zero-emission pneumatics throughout the source category;
- EPA's failure to set methane emission standards for storage vessels;
- The "technically infeasible" or "unsafe" exception to leak repair requirements; and
- The need to proceed expeditiously with regulations for existing sources.[83]

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[82] *See* API, Petition for Reconsideration re: Final Rule Published at 81 Fed. Reg. 35,8234 (June 3, 2016), entitled "Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources," Docket No. EPA-HQ-OAR-2010-0505, RIN 2060-AS30 (Aug. 2, 2016); TXOGA, Petition for Reconsideration re: Final Rule Published at 81 Fed. Reg. 35,8234 (June 3, 2016), entitled "Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources," Docket No. EPA-HQ-OAR-2010-0505, RIN 2060-AS30 (Aug. 2, 2016); GPA, Petition for Reconsideration re: Final Rule Published at 81 Fed. Reg. 35,8234 (June 3, 2016), entitled "Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources," Docket No. EPA-HQ-OAR-2010-0505, RIN 2060-AS30 (Aug. 2, 2016) IPAA, Petition for Reconsideration re: Final Rule Published at 81 Fed. Reg. 35,8234 (June 3, 2016), entitled "Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources," Docket No. EPA-HQ-OAR-2010-0505, RIN 2060-AS30 (Aug. 2, 2016).

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C. History of Litigation over Subpart OOOOa.

The court consolidated the lawsuits under lead case No. 16-1242 in late July and early August.[84] Several states and local governments moved to intervene on EPA's side in the litigation, including California, Connecticut, Illinois, New Mexico, New York, Oregon, Rhode Island, Vermont, Massachusetts, and the City of Chicago (collectively, the States).[85] Maryland and Washington later filed a separate joint motion to intervene on EPA's behalf or, alternatively, join the other states that had already filed their motion to intervene.[86] Several environmental groups, including Clean Air Council, Earthworks, Environmental Defense Fund, Environmental Integrity Project, Natural Resources Defense Council, and Sierra Club (collectively, 2016 Environmental Coalition) also moved to intervene on EPA's behalf.[87] The court granted all motions to intervene on December 19, 2016.[88]

A round of motions practice ensued after the cases challenging the 2016 Rule were filed, with the parties identifying a path forward in the litigation challenging not only the 2016 Rule, but also the 2012, 2013, and 2014 Rules. As a result, the court consolidated all industry and state challenges to all four rules that argued that EPA had gone too far.[89] EPA later moved to hold the consolidated case in abeyance, based on the new Presidential Administration's decision to reconsider the 2016 Rule.[90] The case remains in abeyance as of the time this article was written.[91] It severed the 2012 Environmental Coalition's case challenging the 2012 Rule into a new docket, No. 16-1425, and ordered that the case be held in abeyance.[92] Several industry groups subsequently intervened in the 2012 Environmental Coalition's case.[93] As of the time this article was written, that case remains in abeyance.

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[83] Clean Air Council et al., Petition for Reconsideration re: Final Rule Published at 81 Fed. Reg. 35,8234 (June 3, 2016), entitled "Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources," Docket No. EPA-HQ-OAR-2010-0505, RIN 2060-AS30 (Aug. 2, 2016).

[85] Unopposed Mot. of the States of Cal. et al. for Leave to Intervene as Resp'ts, *North Dakota v. EPA*, No. 16-1242 (D.C. Cir. Aug. 15, 2016), ECF No. 1630473.
[86] Unopposed Mot. of the States of Md. & Wash. for Leave to Intervene as Resp'ts, *North Dakota v. EPA*, No. 16-1241 (D.C. Cir. Sept. 2, 2016), ECF No. 1633709.
[87] Mot. to Intervene in Supp. of Resp't, *North Dakota v. EPA*, No. 16-1241 (D.C. Cir. Aug. 15, 2016), ECF No. 1630507.
[88] Order at 1, *North Dakota v. EPA*, No. 16-1242 (D.C. Cir. Dec. 19, 2016), ECF No. 1651602.
[89] Order at 2, *North Dakota v. EPA*, No. 13-1108 (D.C. Cir. Jan. 4, 2017), ECF No. 1654072.
[90] Notice of Exec. Order & Mot. to Hold Cases in Abeyance, *API v. EPA*, No. 13-1108 (Apr. 7, 2017), ECF No. 1670157.
[91] *See* EPA's Status Report at 1–4, *API v. EPA*, No. 13-1108 (D.C. Cir. Nov. 21, 2017), ECF No. 1705442.
[92] *Id.*
[93] *See* Notice of Intent to Participate as Intervenor-Resp't by the Am. Petroleum Inst., *Nat. Res. Def. Council v. EPA*, No. 16-1425 (D.C. Cir. Feb. 3, 2017), ECF No. 1659357; TXOGA Notice of Intent to Participate in Litigation, *Nat. Res. Def. Council v. EPA*, No. 16-1425 (D.C. Cir. Feb. 2, 2017), ECF No. 1659079.

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V. What Came Next: Developments After EPA Promulgated Subpart OOOOa.

A. EPA Issues and Retracts an Information Collection Request.

Because the 2016 Rule regulated methane, rather than just VOC emissions from the oil and gas source category, it triggered an obligation for EPA to promulgate regulations that apply to existing, instead of just new sources. The CAA requires EPA to "prescribe regulations" requiring states to submit plans which "establish[] standards of performance for any existing source for any air pollutant (i) for which air quality criteria have not been issued . . . but (ii) to which a standard of performance under this section would apply if such existing source were a new source."[94] As discussed in greater detail below, the CAA therefore requires EPA to develop regulations for states to submit implementation plans setting performance standards for existing sources of methane emissions in the oil and gas sector.[95]

At the same time that it finalized the 2016 Rule, EPA proposed an Information Collection Request (ICR), which it stated was designed to inform the agency's decisionmaking process as it contemplated regulations for existing sources.[96] EPA solicited a broad range of information, including the number of existing facilities, what emission controls are already being used in the field, how they are configured, the difficulty of upgrading or replacing them, time needed to retrofit them, the potential costs of retrofitting, whether electricity is available, and how often sites are staffed or visited.[97] EPA solicited a second round of comments on the proposed ICR a few months later.[98] EPA issued the final ICR on November 10, 2016, requiring operators to submit some information within 60 days, and other information within 180 days.[99] Several state attorney generals and governors then requested that the new Presidential Administration rescind the ICR on the grounds that it was overly burdensome and that they did not believe the consultation process required by the statute had been properly followed.[100] Five days later, EPA sent a letter to ICR recipients, informing them that they did not need to comply with the ICR.[101] EPA formally withdrew the ICR the next day.[102]

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[94] 42 U.S.C. § 7411(d)(1)(A).
[95] *See infra* pp. ___.
[96] 81 Fed. Reg. 35,763, 35,764 (June 3, 2016).
[97] *Id.*
[98] 81 Fed. Reg. 66,962, 66,962 (Sept. 29, 2016).
[99] EPA, *Information Collection Request: Supporting Statement, ICR No. 2548.01: Information Collection Effort for Oil and Gas Facilities* 12 (Nov. 9, 2016), https://www.epa.gov/sites/production/files/2016-11/documents/oil-natural-gas-icr-supporting-statement-epa-icr-2548-01.pdf.
[100] Letter from Ken Paxton, Tex. Atty. Gen. et al., to Scott Pruitt, Adm'r, EPA 1–2 (Mar. 1, 2016), www.epa.gov/sites/production/files/2017-03/documents/letter_from_attorneys_general_and_governors.pdf.
[101] Letter from Peter Tsirigotis, Director, Sector Policies and Programs Division, EPA, to ICR Recipients 1 (Mar. 6, 2016), https://www.epa.gov/sites/production/files/2017-03/documents/oil_and_gas_information_request_withdrawal_letter_sample_to_post_1.pdf.
[102] 82 Fed. Reg. 12,817, 12,817 (Mar. 7, 2017).

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B. The D.C. Circuit Overturns EPA's Initial Attempt to Stay the 2016 Rule.

Like prior administrations when there has been a transition between parties, the new Presidential Administration and newly-confirmed EPA Administrator Pruitt undertook a range of actions coming into office to determine if the policies of the prior administration should be maintained. The new administration focused on what it considered to be regulatory burdens, the costs and benefits of those regulations, and the impacts on jobs, with a particular emphasis on rules like the 2016 Rule that were finalized in the year before the election. Specifically, on March 28 2017, President Trump issued an Executive Order instructing Administrator Pruitt to review the 2016 Rule for consistency with the Administration's policy "to promote clean and safe development of our Nation's vast energy resources, while at the same time avoiding regulatory burdens that unnecessarily encumber energy production, constrain economic growth, and prevent job creation", and "as soon as practicable . . . publish for notice and comment proposed rules suspending, revising, or rescinding those rules."[103]

Shortly thereafter, Administrator Pruitt sent several industry trade associations that had petitioned EPA for reconsideration of the 2016 Rule a letter, informing them that he was granting reconsideration on three issues raised in the petitions, and assuring them that "[a]s a result of this reconsideration, the EPA intends to exercise its authority under CAA section 307 to issue a 90-day stay of the compliance date" for the 2016 Rule's fugitive emissions (LDAR) requirements, and that regulated entities would not need to comply with those requirements.[104] On June 5, 2017, EPA published a federal register notice staying for three months the 2016 Rule's fugitive emissions requirements in their entirety, as well as the standards for pneumatic pumps, and requirements that professional engineers certify the proper installation of closed vent systems used to comply with some aspects of the 2016 Rule.[105]

The same day, Clean Air Council, Earthworks, Environmental Defense Fund, Environmental Integrity Project, Natural Resources Defense Council, and Sierra Club (collectively, CAC Plaintiffs) petitioned for review of EPA's action in the D.C. Circuit.[106] The CAC Plaintiffs also filed an emergency motion seeking a stay, or alternatively, summary vacatur.[107] Fifty-seven industry groups and states intervened on EPA's behalf.[108] Thirteen states, the District of Columbia, and the City of Chicago intervened on behalf of the CAC

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[103] Exec. Order No. 13,783 § 7(a), 2017 WL 1149827, at *5 (Mar. 28, 2017).
[104] See, e.g., Letter from Scott Pruitt, Adm'r, EPA, to Shannon S. Broome, Counsel for TXOGA 2 (Apr. 18, 2017), www.epa.gov/—sites/production/files/2017-04/documents/oil_and_gas_fugitive_emissions_monitoring_reconsideration_4_18_2017.pdf.
[105] 82 Fed. Reg. 25,730, 25,731–32 (June 5, 2017).
[106] Pet'n for Rev., *Clean Air Council v. Pruitt*, No. 17-1145 (D.C. Cir. June 5, 2017), ECF No. 1678132.
[107] Emergency Mot. for a Stay or in the Alternative, Summary Vacatur, *Clean Air Council v. Pruitt*, No. 17-1145 (D.C. Cir. June 5, 2017), ECF No. 1678141.
[108] Order at 1–2, *Clean Air Council v. Pruitt*, No. 17-1145 (D.C. Cir. June 16, 2017), ECF No. 1679975.

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Plaintiffs.[109] The court ordered a rapid briefing schedule due to the emergency nature of the relief sought by the CAC Plaintiffs.[110]

On July 3, 2017, in a 2-1 decision, a panel of the D.C. Circuit "conclude[d] that EPA lacked authority under the Clean Air Act to stay the rule, and . . . therefore grant[ed] petitioners' motion to vacate the stay."[111] The court stated that 42 U.S.C. § 7607(d)(7)(B), the CAA provision that EPA relied upon to issue the stay, "sets forth the circumstances under which EPA must reconsider a rule."[112] "It provides that "[i]f the person raising an objection can demonstrate to the Administrator that [1] it was impracticable to raise such objection within [the notice and comment period] ... and [2] if such objection is of central relevance to the outcome of the rule, the Administrator shall convene a proceeding for reconsideration of the rule."[113] The court stated that the "case hinges . . . on whether final rule was a logical outgrowth" of EPA's proposed rule, which would determine whether it was truly "impracticable" for the industry groups to have raised their objections to it during the notice and comment period.[114] The court considered each of the four reasons that EPA granted reconsideration.[115] It concluded that:

> The administrative record thus makes clear that industry groups had ample opportunity to comment on all four issues on which EPA granted reconsideration, and indeed, that in several instances the agency incorporated those comments directly into the final rule. Because it was thus not "impracticable" for industry groups to have raised such objections during the notice and comment period, CAA section 307(d)(7)(B) did not require reconsideration and did not authorize the stay. EPA's decision to impose a stay, in other words, was "arbitrary, capricious, [and] ... in excess of [its] ... statutory ... authority." 42 U.S.C. § 7607(d)(9)(A), (C). We shall therefore grant Environmental Petitioners' motion to vacate the stay.[116]

The court also rejected EPA's argument that it had "inherent authority" to issue the stay, explaining that EPA had relied on its authority under § 76076(d)(7)(B), and further that it "must point to something in either the Clean Air Act or the APA that gives it authority to stay the methane rule."[117] The panel majority also held that the stay was a judicially reviewable final agency action, because although an agency's decision to grant a petition for reconsideration is

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[109] Order at 1, *Clean Air Council v. Pruitt*, No. 17-1145 (D.C. Cir. June 28, 2017), ECF No. 1681962. The State of Colorado also moved to intervene on behalf of the CAC plaintiffs, but the court never ruled on its motion. *See* Mot. of the State of Colo. for Leave to Intervene in Supp. of Pet'rs, *Clean Air Council v. Pruitt*, No. 17-1145 (D.C. Cir. June 30, 2017), ECF No. 1682343.
[110] Order at 1, *Clean Air Council v. Pruitt*, No. 17-1145 (D.C. Cir. June 6, 2017), ECF No. 1678366.
[111] *Clean Air Council v. Pruitt*, 862 F.3d 1, 4 (D.C. Cir. 2017).
[112] *Id.* at 4–5.
[113] *Id.* at 5 (quoting 42 U.S.C. § 7607(d)(7)(B) (alterations in original)).
[114] *Id.* at 10.
[115] *Id.* at 10–14.
[116] *Id.* at 14.
[117] *Id.* at 9.

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not judicially reviewable, EPA's imposition of the stay was subject to judicial review.[118] Judge Brown dissented, concluding that the stay notice was not in fact a final agency action subject to judicial review.[119]

The court issued its mandate simultaneously with its decision.[120] The court later withdrew the mandate in response to a motion from EPA, in order to give the agency the opportunity to petition for rehearing.[121] The court issued the final mandate on July 31, 2017, after EPA and several intervenors petitioned for en banc rehearing.[122] The D.C. Circuit denied rehearing en banc by an 8 to 3 vote on August 10, 2017.[123]

As a result of the court's decision, the 2016 Rule was fully reinstated as of July 31, 2017, the date that the court issued its mandate. As a result, operators are required to comply with all of the Rule's requirements and were required to submit their first annual LDAR reports on October 31, 2017, three months after the initial LDAR survey deadline.[124] The 2016 Rule remains in effect as of the time this article was written.

C. The June 2017 Proposed Stays & NODAs

On June 16, 2017, EPA released two proposed rules related to methane. The first proposed rule would stay for two years the effective date of the fugitive emissions requirements, the well site pneumatic pump standards, and the requirements for certification of closed vent system by professional engineer in the 2016 Rule while the agency reconsiders issues associated with these requirements.[125] The second proposed rule would establish a new three-month stay of the 2016 Rule requirements addressed in the two-year proposed stay.[126] EPA stated that the three-month stay is necessary because if finalized, the two-year stay would "likely be determined to be a major rule under the Congressional Review Act and therefore will not take effect until sixty days after publication or after Congress receives the rule report, whichever is later."[127] To avoid a potential gap in the effectiveness of the rule, EPA is currently proposing a three-month stay which would not qualify as a major rule and could become effective upon publication. EPA has stated that the proposed two-year stay would give the agency time to complete the

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[118] *Id.* at 6.
[119] *Id.* at 14–18 (Brown, J., dissenting).
[120] Mandate at 1, *Clean Air Council v. Pruitt*, No. 17-1145 (D.C. Cir. July 3, 2017), ECF No. 1682469.
[121] Order at 1, *Clean Air Council v. Pruitt*, No. 17-1145 (D.C. Cir. July 13, 2017), ECF No. 1683944.
[122] Order at 1, *Clean Air Council v. Pruitt*, No. 17-1145 (D.C. Cir. July 31, 2017), ECF No. 1686664.
[123] Order at 1, *Clean Air Council v. Pruitt*, No. 17-1145 (D.C. Cir. Aug. 10, 2017) (en banc), ECF No. 1688264.
[124] 40 C.F.R. § 60.5420a(b).
[125] 82 Fed. Reg. 27,645 (June 16, 2017).
[126] 82 Fed. Reg. 27,641 (June 16, 2017).
[127] *Id.* at 27,641.

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reconsideration process, including issuing a proposal, taking public comment, and issuing a final action. Specifically, the Agency is reconsidering

- The process and criteria for requesting and receiving approval for the use of an alternative means of emission limitation (AMEL) and the applicability of the fugitive emissions requirements to low production well sites;[128]
- The requirement that a professional engineer certify the design and capacity of closed vent systems that are used to reduce emissions from several types of equipment used in the oil and gas industry, including reciprocating compressors, centrifugal compressors, pumps and storage tanks;[129]
- The requirement for certification by a professional engineer of technical infeasibility in order for a well site pneumatic pump to qualify for an exemption from controlling emissions using an existing control or process;
- The requirement that the technical infeasibility exemption is not available for a well site that is a "greenfield" site, "a caveat and term that was also not proposed for notice and comment."[130]

On November 8, 2017, EPA issued two notices of data availability (NODA) in support of its proposed stays.[131] According to EPA, the NODAs were issued in order to provide additional information on issues raised by stakeholders and to solicit comments on the technological, resource, and economic challenges with implementing the fugitive emissions requirements, well site pneumatic pump standards, and the requirements for certification of closed vent systems by a professional engineer. In addition, EPA requested comment on the Agency's legal authority to issue a stay. EPA also announced that it update its economic impact analysis to reflect the updated cost savings and forgone benefits analysis for the 2-year stay.[132]

D. States and Environmental Groups Notify EPA of Their Intent to Sue Over EPA's Failure to Promulgate Regulations for Existing Sources.

As discussed above, [133] Section 111(d) of the CAA provides:

> The Administrator shall prescribe regulations which shall establish a procedure similar to that provided by section 7410 of this title under which each State shall submit to the Administrator a plan which (A) establishes standards of performance for any existing source for any air pollutant (i) for which air quality criteria have not been issued or which is not included on a list published under section 7408(a) of this title or emitted from a source category which is regulated under section 7412 of this title but (ii) to which a standard of performance under

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[128] *Id.* at 27,646.
[129] *Id.* at 27,647.
[130] *Id.*
[131] 82 Fed. Reg. 51,794 (Nov. 8, 2017); 82 Fed. Reg. 51,788 (Nov. 8, 2017).
[132] 82 Fed. Reg. at 51,788.
[133] *See supra* pp. ____.

this section would apply if such existing source were a new source, and (B) provides for the implementation and enforcement of such standards of performance.[134]

The 2016 Rule regulates emissions of methane, which is not classified as a criteria pollutant under CAA § 108.[135] Environmental groups also argue that the regulation of VOCs triggers standards under Section 111(d). EPA has previously disagreed with that position.. Environmental groups also argue that although EPA has promulgated limited NESHAPs to regulate emissions from a few types of equipment within the oil and gas source category, it has not promulgated regulations covering methane or VOC emissions from the oil and gas sector under CAA § 112.[136] The Obama Administration EPA "committed to require standards of performance for existing oil and gas sources,"[137] and was using the ICR to develop information to issue such standards. Given that the new administration is reconsidering EPA's regulation of methane under the 2016 Rule and the expansion of the source category under the 2012 and 2016 Rules, the agency has not proceeded with steps to implement the Section 111(d) provisions.

On June 29, 2017, 14 states, the District of Columbia, and the City of Chicago provided EPA with notice, pursuant to 42 U.S.C. § 7604, of their intent to file suit for the agency's failure to promulgate standards of performance for existing sources in the oil and gas sector.[138] An environmental coalition consisting of Environmental Defense Fund, Clean Air Task Force, Clean Air Council, Center for Biological Diversity, Earthworks, Environmental Integrity Project, Natural Resources Defense Council, and Sierra Club provided EPA with their own notice of intent to sue for the agency's failure to promulgate performance standards for existing sources on August 28, 2017.[139] As of the time this article was written, neither the state nor environmental coalition had filed a lawsuit challenging EPA's failure to promulgate performance standards for existing sources in the oil and gas sector.

E. Control Technique Guidelines

The CAA requires states to submit state implementation plans (SIPs) providing for "implementation of all reasonably available control measures" (RACT) for all areas designated as nonattainment with a national ambient air quality standard (NAAQS).[140] It further requires states with moderate ozone nonattainment areas to revise their applicable SIP to include RACT

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[134] 42 U.S.C. § 7411(d)(1).
[135] *See id.* § 7408(a).
[136] *See generally id.* § 7412; *see also generally* 40 C.F.R. pt. 63 subpt. HH.
[137] 81 Fed. Reg. at 35,764.
[138] Letter from Eric T. Schneiderman, N.Y. Atty. Gen. et al., to Scott Pruitt, Adm'r, EPA 3 (June 29, 2017).
[139] Letter from Peter Zalzal, Envt'l Def. Fund et al., to Scott Pruitt, Adm'r, EPA 8 (Aug. 28, 2017).
[140] 42 U.S.C. § 7502(c)(1).

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for each category of VOC sources covered by a CTG issued by EPA after November 15, 1990.[141] The CTGs identify RACT for both new and existing sources.[142]

As noted above, EPA finalized CTGs for the oil and gas sector on October 27, 2016.[143] EPA gave states two years—until October 27, 2018—to submit state implementation plans (SIPs) demonstrating their compliance with RACT for VOC emissions from the oil and gas source category as identified in the CTG.[144]

The CTGs recommend that states adopt the following control techniques as RACT:

- Storage vessels with potential to emit > 6 tpy VOCs: 95% VOC emission reduction; or maintain less than 4 tpy uncontrolled actual VOC emissions after demonstrating that actual uncontrolled VOC emissions have remained less than 4 tpy (determined monthly) for 12 consecutive months;
- Pneumatic controllers at gas processing plants: natural gas bleed rate of 0 scfh;
- Pneumatic controllers located between the wellhead and a natural gas processing plant or oil pipeline: natural gas bleed rate of ≤ 6 scfh;
- Pneumatic pumps at gas processing plants: natural gas bleed rate of 0 scfh;
- Pneumatic pumps at wellsites: route VOC emissions to existing onsite control device or process with 95% control, unless the process cannot achieve 95% control, in which case maintain documentation demonstration the percent control the device is designed to achieve; if no control device on site, maintain records demonstrating this;
- Pneumatic pumps at wellsites in operation for less than 90 calendar days per year: not subject to RACT;
- Reciprocating compressors located between the wellhead and custody transfer point to the transmission and storage segment: replace rod packing on or before 26,000 hours of operation or 36 months; or route rod packing emissions to a process through a closed vent system under negative pressure;
- Reciprocating compressors at well sites: not subject to RACT;
- Wet seal centrifugal compressors located between the wellhead and custody transfer point to the transmission and storage segment: reduce VOC emissions by 95%;
- Wet seal centrifugal compressors at well sites: not subject to RACT;
- Dry seal centrifugal compressors: not subject to RACT;
- Equipment leaks at gas processing plants: implement LDAR program from 40 C.F.R. pt. 60 subpt. VVa;
- Fugitive emissions from gathering and boosting stations located between the wellhead and the point of custody transfer: quarterly OGI LDAR; Method 21 can get used as an alternative to OGI at a 500 ppm repair threshold;

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[141] *Id.* § 7511a(b)(2)(A). This requirement also applies in serious, severe, and extreme ozone nonattainment areas. *See id.* § 7511a(c)–(e).
[142] *Id.* § 7502(c)(1).
[143] *See supra n.* ___ (citing 81 Fed. Reg. at 74,798).
[144] 81 Fed. Reg. at 74,799.

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- Fugitive emissions from well sites with gas to oil ratios greater than or equal to 300 that produce an average of > 15 barrels of oil equivalents per well per day: semiannual OGI LDAR; Method 21 can get used as an alternative to OGI at a 500 ppm repair threshold;
- Fugitive emissions from well sites with a gas to oil ratio < 300: not subject to RACT.[145]

Some states have already begun implementing the CTGs. On November 16, 2017, the Colorado Air Quality Control Commission adopted revisions to its air quality regulations for the oil and gas sector.[146] The revised regulations are intended to implement RACT for the oil and gas sector within the Denver-Metro/Northern Front Range moderate nonattainment area.[147] The regulations large mirror the CTGs, with some variations. For example, Colorado relied on its existing storage tank regulations already adopted into its ozone SIP.[148] Colorado continued to rely on a tpy applicability threshold for well production facility LDAR, rather than a barrels of oil equivalent threshold, and as a result adopted a standard that applies to more sources than the CTGs, but requires less frequent inspections for smaller facilities than the CTGs.[149] Colorado also chose to adopt LDAR requirements for pneumatic controllers as state-only measures, which are not required by the CTGs, rather than incorporate them into its SIP, in order to achieve additional emissions reductions.[150]

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[145] EPA, *Control Techniques Guidelines for the Oil and Natural Gas Industry* at 3-6 to 3-8 (Oct. 27, 2016).

[146] *See* 44 Colo. Reg. 23 (Dec. 10, 2017), *available at* https://www.sos.state.co.us/CCR/RegisterContents.do?publicationDay=12/10/2017&Volume=40&yearPublishNumber=23&Month=12&Year=2017

[147] *See generally* 5 Colo. Code Regs. § 1001-9.XX.P. (statement of basis and purpose for Revisions to Section II., XII., Section XVII., and Section XVIII).

[148] *See id.*

[149] *See id.*

[150] *See id.*

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Setting the Table: EPA's Regulation of Methane from the Oil and Natural Gas Sector (NSPS Subpart OOOOa)

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FEBRUARY 6, 2018

Quad O/Oa: What Are They?

- **New source performance standards (NSPS) for oil and natural gas facilities.**
  - Title 40, Part 60 of the Code of Federal Regulations
  - Part 60, Subpart OOOO = "Quad O"
  - Part 60, Subpart OOOOa = "Quad Oa"

- **Statutory Authority:** CAA Section 111 requires EPA to…
  - **List Source Categories:** EPA lists source categories that cause or contribute significantly to air pollution reasonably anticipated to endanger public health or welfare.
  - **Regulate New/Modified Sources in Source Category:** EPA must issue NSPS for new sources in listed categories
    - 8-year review and update as appropriate
  - **Regulate Existing Sources in Source Category in Some Cases**

2

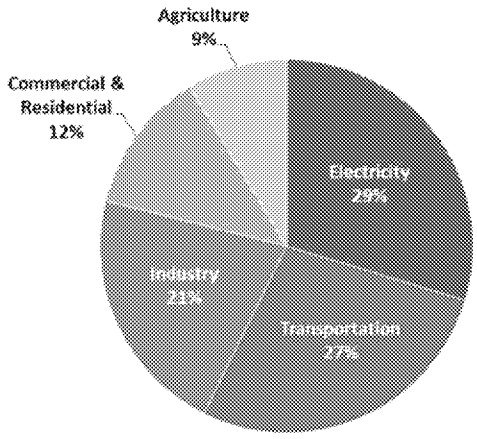
Quad O/Oa: What Are They?

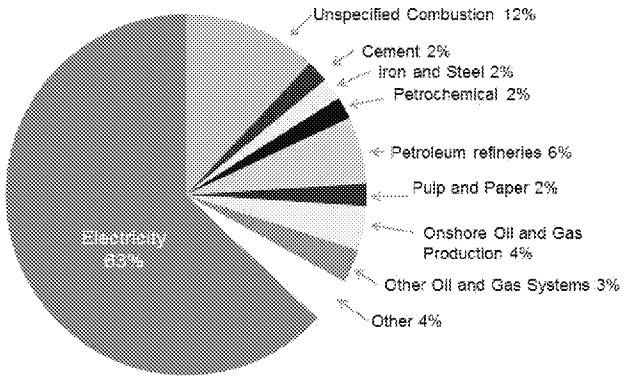
- **Quad O (August 2012; revisions thereafter)**
  - Regulates emissions of VOC and SO_2.
  - Primary requirements:
    - Green completions (routing salable quality gas to flow line and combusting gas not directed to flow line).
    - Storage tank controls (95% reduction of VOCs).
  - Other regulated emission points:
    - Centrifugal and reciprocating compressors.
    - Pneumatic controllers.
- **Quad Oa (2016)**
  - Methane emission standards for new o/g facilities.
  - Primary requirements:
    - Leak detection surveys and repair of leaks within specified time periods.
  - Brings in transmission sources from which it also regulates VOCs and SO_2.

3

Relative GHG Contributions

Total U.S. Greenhouse Gas Emissions by Economic Sector in 2015





Source: US EPA

4

Quad O/Oa History: How Did We Get Here?

1979:
EPA lists O&G production source category.

1985:
EPA issues NSPS for natural gas processing plants.

2009-2010:
ENGOS sue EPA for failing to update the NSPS and air toxics NESHAP.

8/2011:
EPA proposes Quad O for VOC.

8/2012:
EPA finalizes Quad O.

10/2012:
Lawsuits/petitions for reconsideration.
ENGOs argue EPA arbitrarily failed to regulate O&G methane emissions.

5

Quad O/Oa History

2013-2014
EPA issues Quad O settlement revisions.

→

2015
EPA proposes Quad Oa, regulating O&G GHGs in form of methane, including from transmission.

→

June 2016
EPA finalizes Quad Oa.

→

Summer 2016
EPA issues ICR to O&G industry to gather data on existing O&G wells under CAA 111(d).

→

Jan-Feb 2017
President Trump inaugurated; Administrator Pruitt confirmed; EPA withdraws ICR.

→

April 2017
EPA grants partial reconsideration of Quad Oa.

6

Quad O/Oa History

June 5, 2017
3-month stay rule for Quad Oa leak detection & repair (LDAR) requirements.

June 5, 2017
ENGOs sue and move for emergency stay of the stay.

June 16, 2017
EPA proposes two-year stay of LDAR and other Quad Oa requirements.

July 3, 2017
D.C. Circuit vacates three-month stay.

November 8, 2017
EPA NODA with more detail on legal authority for 2-year delay; seeks technical info to inform a proposed rule.

Today
2-year stay not final – Quad Oa in effect for companies; litigation in abeyance.

Current State of Play: Quad O/Oa Are In Effect

- June, 2017: EPA issued 3 mo. stay of certain parts of Quad Oa Rule.
- June 5, 2017: ENGOs immediately filed a petition for review in the D.C. Circuit, *Clean Air Council v. Pruitt.*
  - ENGOs also filed motion for stay of EPA's action ("stay of the stay") or, in the alternative, summary vacatur of EPA's action.
- Industry groups intervened on behalf of EPA.
- July 3, 2017: After expedited briefing on the ENGOs' motion, the D.C. Circuit vacates the 3-month stay; issues mandate.
- July 31, 2017: After briefly withdrawing the mandate, the D.C. Circuit re-issues mandate to EPA.
- August 10, 2017: D.C. Circuit denies *en banc* review.

8

Current State of Play: Recap

1. Quad O and Oa are currently in effect.
2. EPA is currently undertaking a rulemaking to delay compliance dates for certain portions of Quad Oa.
3. EPA's administrative reconsideration of certain portions of Quad Oa is ongoing.
4. EPA may consider Quad O/Oa replacement rules.
5. Litigation on Quad O, Oa is being held in abeyance.

9

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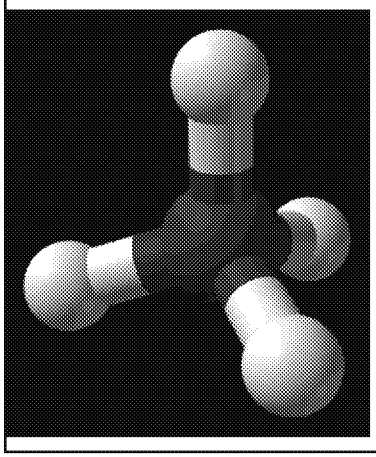
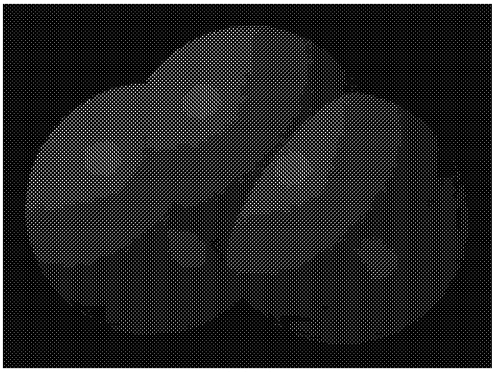
Why We Care: Environmental Perspectives on Oil & Gas Sector Emissions

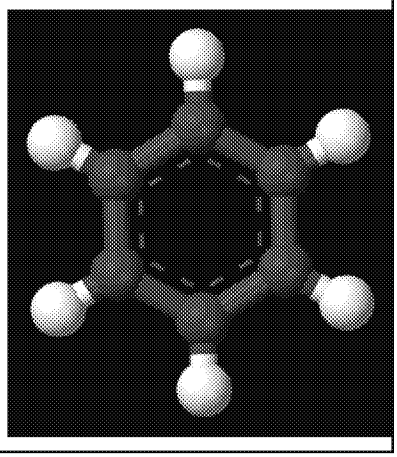
Climate



Smog



Air Toxics



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What's New in OOOOa?
Environmental Groups' Perspective

- Leak Detection and Repair
- Direct Methane Regulation
- Pneumatic Controllers
- Oil Well Emissions

Image property of Earthworks

Environmental Groups' OOOOa Reconsideration Petition

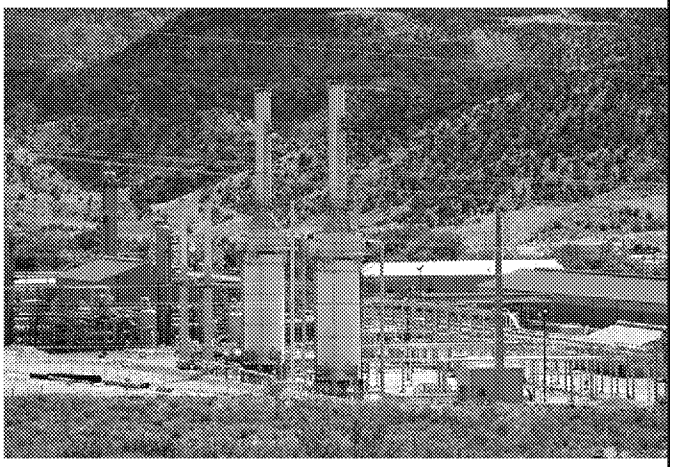
Image property of Earthjustice

- EPA's failure to require zero-emission pneumatics throughout the source category;
- EPA's failure to set methane emission standards for storage vessels;
- The "technically infeasible" or "unsafe" exception to leak repair requirements;
- The need to proceed expeditiously with regulations for existing sources.

Notice of Intent to Sue for Existing Source Standards

42 U.S.C. § 7411(d)

EPA shall "prescribe regulations which shall establish a procedure" requiring states to submit plans which "establish[] standards of performance for any existing source for any air pollutant (i) for which air quality criteria have not been issued . . . but (ii) to which a standard of performance under this section would apply if such existing source were a new source."



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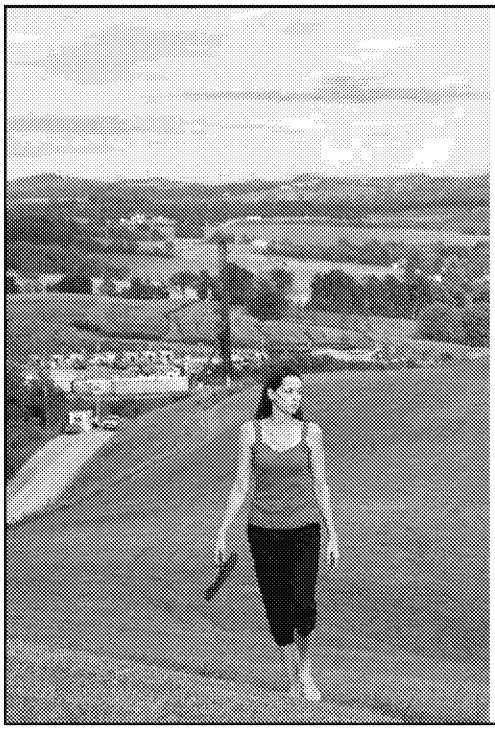
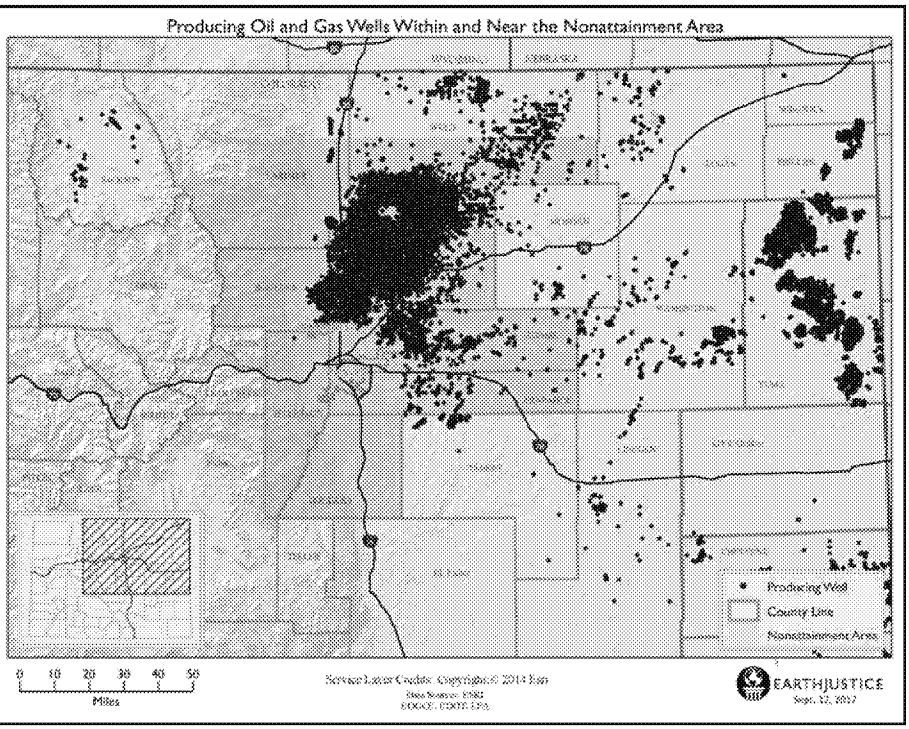


Clean Air Council v. Pruitt
862 F.3d 1 (D.C. Cir. 2017)

- EPA's "inherent authority" to issue a stay: "EPA must point to something in either the Clean Air Act or the APA that gives it authority to stay the methane rule."

- "Because it was thus not "impracticable" for industry groups to have raised such objections during the notice and comment period, CAA section 307(d)(7)(B) did not require reconsideration and did not authorize the stay."

Control Technique Guidelines



Proposed Stays & NODA: Environmental Perspectives on What Comes Next

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EPA's Regulation of Methane from the Oil and Natural Gas Sector (NSPS Subpart OOOOa)

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FEBRUARY 6, 2018

How Did EPA Justify Regulating Methane?

- **Quad Oa issued under Section 111**
- **Legal standard in Section 111**
  - "Category of sources"
  - "**Causes, or contributes significantly** to, air pollution
  - May reasonably be anticipated to **endanger** public health or welfare."
- **EPA Quad Oa theories:**
  - Rely on 1979 source category finding.
  - Rely on Tailpipe Rule finding.

2

What Is the 2009 Tailpipe Endangerment Finding?

- *Projected* concentrations of six key "well-mixed" GHGs.

Carbon Dioxide (CO_2)	Methane (CH_4)
Nitrous Oxide (N_2O)	Hydrofluorocarbons (HFCs)
Perfluorocarbons (PFCs)	Sulfur Hexafluoride (SF_6)

- Current and projected effects.
- US impact "focus."
  - Global impacts "considered" -- can also adversely affect US.

Quad Oa Endangerment

- "[E]ven assuming [revisiting the 1979 endangerment finding is needed], … ample evidence … this source category **as a whole** (oil and natural gas production, processing, transmission, and storage) **contributes significantly** to air pollution that may reasonably be anticipated to endanger public health and welfare."
  - **EPA regulations GHG "expressed as methane."**
  - Claimed *discretion* to decide which pollutants to regulate under CAA 111(b)
    - Rejected industry view that separate finding needed for each pollutant.
    - Rejected ENGO view that EPA *must* regulate methane from O&G source category.

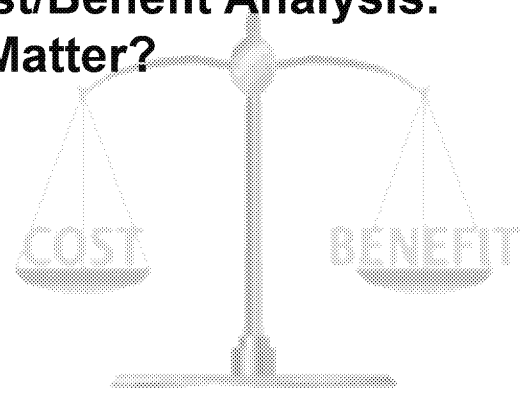
4

Threshold Issues: Why Does It Matter?

- Endangerment finding (Quad Oa).
- Significant contribution finding (Quad Oa).
- Best System of Emission Reduction (BSER).
- Source category expansion (Quad O/Oa).
- Affected facility definition (Quad O/Oa).

5

Transparent and Valid Cost/Benefit Analysis: Why Does It Matter?

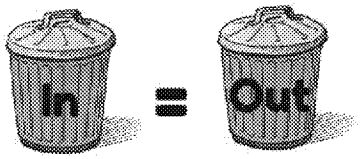


- Understated costs.
  - Labor rates.
  - Existing programs.
- Overstated benefits.
  - Discount rate of 3% for benefits (lack of parity with costs, which used 7% rate).
    - 3% = CH_4 worth $1100/ton in 2015.
    - 5% = CH_4 worth $490/ton in 2015.
  - Quad Oa cost/benefit analysis *relies* on SCM.

6

Social Cost of Methane: SCM or SC-CH_4

- Introduced in 2015 NSPS Quad Oa proposal.
- Theoretical cost of incremental CH_4 ton emitted in a given year.
  - Models?
  - Peer review quality?



- SCM flaws (similar to SCC flaws).
  - global v. domestic cost;
  - 2.5%, 3%, and 5% discount rate. Where's 7%?

Higher GWP means estimates > > SCC.

7

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EPA's Authority to Delay/Postpone Enforcement of Its Regulations

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Paper 5

EPA's Authority to Postpone the Implementation of Existing Rules

Whit Swift[1]

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I. Introduction

President Donald Trump has an ambitious agenda for the U.S. Environmental Protection Agency ("EPA"), with a focus on changing course on a number of high-profile rules promulgated during the Obama administration, including the Clean Power Plan and the rule defining "Waters of the United States." As part of that agenda, EPA Administrator Scott Pruitt has taken actions to stay or delay the implementation of multiple rules promulgated by the prior administration – including certain elements of the New Source Performance Standard ("NSPS") establishing requirements for the control of methane emissions from oil and gas sources (the "Methane Rule"),[2] and the January 2017 amendments to the Risk Management Plan ("RMP") rules.[3] Similarly, the U.S. Department of the Interior's Bureau of Land Management ("BLM") has taken action to delay the implementation of key aspects of the Waste Prevention, Production Subject to Royalties, and Resource Conservation Rule ("BLM Waste Prevention Rule") that BLM had adopted as a final rule in November 2016.[4] These rules – particularly EPA's Methane Rule and the BLM Waste Prevention Rule – directly impact the owners and operators engaged in oil and gas exploration and production activities in the west.

All of these rules met vocal opposition from members of the regulated community and some states when promulgated during the Obama administration. At the same time, the current administration's delay actions have been opposed by advocacy groups and certain states, and have been challenged in court. In two cases, federal courts have issued decisions that struck down EPA and BLM actions aimed at delaying implementation of Obama-era rules. On July 3, 2017, the U.S. Court of Appeals for the District of Columbia Circuit vacated EPA's initial 90-day stay of certain Methane Rule requirements, complicating the Independence Day vacations of many associated with the oil and gas industry and, more broadly, signaling the challenge that EPA would face when seeking to stop or delay the implementation of one of its own rules.[5] On

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[1] The author thanks Brittany Pemberton of Bracewell LLP's Washington, D.C. office for her valuable assistance in preparing this paper.

[2] 40 C.F.R. Part 60, Subpart OOOOa (40 C.F.R. § 60.5360a *et seq.*, adopted at 81 Fed. Reg. 35824 (June 3, 2016)).

[3] 40 C.F.R. Part 68 (40 C.F.R. § 68.1 *et seq.*, adopted at 82 Fed. Reg. 4594 (Jan. 13, 2017)).

[4] 43 C.F.R. § 3162.3-1; 43 C.F.R. §§ 3179.7-3179.301, adopted at 81 Fed. Reg. 83008 (Nov. 18, 2016).

[5] *Clean Air Council v. Pruitt*, No. 17-1145 (D.C. Cir., July 3, 2017).

The views expressed in this paper are solely those of the author (or authors).

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October 4, 2017, the U.S. District Court for the Northern District of California confirmed that challenge, vacating BLM's notice postponing the compliance dates for certain requirements of the BLM Waste Prevention Rule.[6]

This paper will examine the different forms of statutory authority available to an agency to stay or to delay the implementation of an existing rule, the limitations on that authority, and how EPA and BLM used that authority in 2017. It will also discuss the implications of the court decisions in the Methane Rule and BLM Waste Prevention Rule cases for the regulated community, and for the administration's broader efforts to delay implementation of these and other Obama-era environmental regulations.

II. Statutory Authority to Delay the Implementation of an Existing Rule

Following the change in administrations, EPA and BLM were faced with implementing *and* defending in court certain Obama-era rules that do not align with the agencies' current direction. In response, the agencies have announced reconsideration proceedings for a number of rules,[7] and at the same time requested that the courts place the judicial challenges of the merits of those Obama-era rules in abeyance for the duration of the reconsideration proceedings – requests that have been granted by the D.C. Circuit.[8] In addition to initiating reconsideration proceedings, EPA and BLM have used multiple mechanisms to delay the implementation of rules that it plans to reconsider and may ultimately change, under both the Clean Air Act ("CAA") and the Administrative Procedure Act ("APA").

A. CAA Section 307(d)(7)(B): Stay Pending Reconsideration

One source of statutory authority for keeping a rule from taking effect exists in the CAA. Under the CAA, EPA has the authority to stay the effectiveness of a rule that meets the criteria for a reconsideration proceeding:

> If the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within such time or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule, the Administrator shall convene a proceeding

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[6] *State of California v. U.S. Bureau of Land Mgmt.*, Case No. 3:17-cv-03804-EDL, --- F. Supp. 3d ---, 2017 WL 4416409 (N.D. Cal. Oct. 4, 2017).

[7] *See, e.g.,* 82 Fed. Reg. 25730 (June 5, 2017) (Methane Rule); 82 Fed. Reg. 13968 (Mar. 16, 2017) (RMP Amendments); *see also* 82 Fed. Reg. 27430 (June 15, 2017) (announcing the delay in future compliance dates of the BLM Waste Prevention Rule in light of the pending rule challenge and BLM's "administrative review" of the rule).

[8] *See, e.g., API v. EPA*, No. 13-1108 (D.C. Cir.) (judicial challenge to the merits of the Methane Rule) (abeyance request filed by EPA on April 7, 2017, granted on May 19, 2017); *American Chemistry Council v. EPA*, No. 17-1085 (D.C. Cir) (judicial challenge to the merits of the RMP amendments) (abeyance requested filed by Petitioners, granted on Apr. 4, 2017).

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> for reconsideration of the rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed. . . . The effectiveness of the rule may be stayed during such reconsideration, however, by the Administrator or the court for a period not to exceed three months.[9]

EPA can stay an existing rule under CAA Section 307(d)(7)(B), and can do so with a single notice in the Federal Register. A stay issued under CAA Section 307(d)(7)(B) is limited in time, however, to the three months provided in the CAA.[10] Like many other deadlines established in the CAA, three months is aspirational for a reconsideration proceeding. As a result, EPA's issuance of a three-month administrative stay under CAA Section 307(d)(7)(B) is perhaps best viewed as providing EPA an opportunity to pursue a longer stay through rulemaking that will actually provide the agency the time it needs to complete the reconsideration process without the administratively stayed rule springing back into effect.[11]

In addition, while the CAA allows EPA to stay the effectiveness of one of its own rules, that CAA Section 307(d)(7)(B) stay is available "only under carefully defined circumstances."[12] As discussed in greater detail below as relates to the Methane Rule stay litigation, while EPA *may* issue a stay under CAA Section 307(d)(7)(B) when it convenes a reconsideration proceeding, the conditions that give EPA grounds to initiate reconsideration must be present for the administrative stay to be valid.

B. APA Section 705: Stay Pending Judicial Review

An agency also has the authority to stay the effectiveness of a rule under the APA when that rule is challenged in court, under APA Section 705:

> When an agency finds that justice so requires, it may postpone the effective date of action taken by it, pending judicial review. On such conditions as may be required and to the extent necessary to prevent irreparable injury, the reviewing court, including the court to which a case may be taken on appeal from or on application for certiorari or other writ to a reviewing court, may issue all necessary and appropriate process to postpone the effective date of an agency action or to preserve status or rights pending conclusion of the review proceedings.[13]

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[9] CAA § 307(d)(7)(B) [42 U.S.C. § 7607(d)(7)(B)].

[10] CAA § 307(d)(7)(B) [42 U.S.C. § 7607(d)(7)(B)]; *NRDC v. Reilly,* 976 F.2d 36, 40 (D.C. Cir. 1992).

[11] *See, e.g.,* 74 Fed. Reg. 36427 (July 23, 2009) ($PM_{2.5}$ Implementation Rule); 82 Fed. Reg. 27645 (June 16, 2017) (Methane Rule).

[12] *See NRDC v. Reilly,* 976 F.2d at 40.

[13] APA § 705 [5 U.S.C. § 705].

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Like the administrative stay notice for a reconsideration under the CAA, the agency can postpone the effective date of a rule under the APA with a single Federal Register notice, as opposed to notice-and-comment rulemaking. However, unlike the CAA administrative stay, a postponement under APA Section 705 is *not* limited in time. The stay available under the APA is only available when the underlying rule is subject to judicial review, *and* when the agency finds "that justice so requires."

In 2012, the U.S. District Court for the District of Columbia issued a decision striking down an APA Section 705 stay issued by EPA for rules regulating hazardous air pollutant emissions from industrial, commercial, and institutional boilers and process heaters at major sources (the "Boiler Rule") and for regulating air pollutant emissions from commercial and industrial solid waste incineration units (the "CISWI Rule"), and in doing so highlighted a number of limitations on an agency's ability to rely on APA Section 705.[14] In the Boiler Rule and CISWI Rule case, EPA had issued a delay notice under APA Section 705 asserting that justice required postponing the effectiveness of the rule because litigation challenging the rule was pending.[15] EPA had also announced a reconsideration of the Boiler Rule and CISWI Rule, and claimed that the APA Section 705 delay would remain in-place until the judicial review proceedings were complete *or* EPA had completed its reconsideration, whichever came first.[16]

Sierra Club challenged the APA Section 705 delay notice. The court found that the APA granted EPA authority to issue a delay notice, and that notice and comment rulemaking were not required for such a delay under the APA.[17] However, the court vacated the APA Section 705 delay, finding that EPA's delay notice was arbitrary and capricious.[18] The court found that, while EPA "paid lip service" to the pending rule challenge litigation, the agency's statements more clearly tied the indefinite stay under APA Section 705 to its pending reconsideration proceeding – and that the APA was not available for a stay pending reconsideration.[19] The court also found that, while EPA had briefly explained why justice required postponing the effectiveness of the rules, the agency had failed to adequately justify the stay under the law. The court ruled that an agency must demonstrate that "justice requires" a stay under APA Section 705 using the four-part test that is the standard for granting a preliminary injunction. Under the *Jackson* court's ruling, an agency must justify a stay based on demonstrations that establish: (1) the likelihood that the party seeking the stay will prevail on the merits of the appeal; (2) the likelihood that the party will be irreparably harmed absent a stay; (3) the prospect that others will be harmed if the court grants the stay; and (4) the public interest in granting the stay.[20]

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[14] *Sierra Club v. Jackson*, 833 F.Supp.2d 11 (D.D.C. 2012).

[15] 76 Fed. Reg. 28662 (May 18, 2011).

[16] *Id.* at 28664.

[17] *Sierra Club v. Jackson*, 833 F.Supp.2d at 26-27.

[18] *Sierra Club v. Jackson*, 833 F.Supp.2d at 30-31.

[19] *Sierra Club v. Jackson*, 833 F.Supp.2d at 33.

[20] *Sierra Club v. Jackson*, 833 F.Supp.2d at 31-32.

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The *Jackson* court found that EPA was not using APA Section 705 as a temporary measure for preserving the status quo during litigation, but rather to buy time for a reconsideration proceeding while avoiding the three-month limit for "reconsideration stays" under CAA Section 307(d)(7)(B). It also found that EPA failed to justify the stay as required under the APA. The *Jackson* court vacated EPA's stay of the Boiler Rule and CISWI Rule, and in doing so noted important restrictions on EPA's ability to rely on the APA for an extended stay.

C. Date Change through Notice-and-Comment Rulemaking

An agency can also delay the implementation of its own rules through notice-and-comment rulemaking. Unlike the three-month administrative stay that can accompany reconsideration under the CAA or the APA Section 705 stay, an agency cannot implement this form of stay with a one-time notice in the Federal Register. Rather, the agency must issue a proposed rule to change the effective date, and then adopt a final rule changing the date after taking public comment on the proposal.

EPA has used this mechanism previously in seeking to delay the implementation of a rule, and to have that delay take effect upon the expiration of the three-month administrative stay authorized by CAA Section 307(d)(B)(7). In doing so, EPA has cited multiple sections of the CAA relating to the agency's general rulemaking authority. In 1991, EPA stayed the implementation of certain new hazardous air pollutant standards for radionuclides at Nuclear Regulatory Commission-licensed facilities, citing its "rulemaking authority to modify a previously promulgated NESHAP."[21] EPA later clarified, in litigating the stay, that it found this authority under CAA Section 301(a).[22] EPA cited this same authority in 2009, when proposing a nine-month stay to the $PM_{2.5}$ implementation rule, while stating that "this notice is also subject to Section 307(d) of the CAA."[23]

More recently, EPA has taken similar action and cited CAA Section 307(d) as authority for an amendment that changed an existing rule's effective date. As discussed in greater detail below, in proposing and then adopting a rule to delay the compliance date for certain Methane Rule requirements and the effective date of the Obama EPA's RMP amendments, EPA stated that its actions were authorized by CAA Section 307(d).[24] Both CAA Section 301(a) ("The Administrator is authorized to prescribe such regulations as are necessary to carry out his functions under this chapter.")[25] and CAA Section 307(d) ("This subsection applies to . . . the promulgation or revision of any standard of performance under section 7411 of this title. . . .")[26]

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[21] 56 Fed. Reg. 18735, 18737 (April 24, 1991).

[22] *See NRDC v. Reilly,* 976 F.2d at 40.

[23] 74 Fed. Reg. 36427, 36430 (July 23, 2009).

[24] 82 Fed. Reg. 16146 (Apr. 3, 2017) (proposed rule); 82 Fed. Reg. 27133 (June 14, 2017) (final rule).

[25] CAA § 301(a) [42 U.S.C. § 7601(a)].

[26] *See, e.g.,* CAA § 307(d)(1)(C) [42 U.S.C. § 7607(d)(1)(C)].

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do not explicitly refer to a stay or delay of implementation, but rather EPA's general authority to promulgate rules, and to amend those rules that it has previously promulgated.

EPA's authority to delay the implementation or effective date through notice-and-comment under its general rulemaking authority is not, however, unfettered. In *NRDC v. Reilly,* the D.C. Circuit assessed the legality of EPA's 1991 final rule that stayed the implementation of certain new hazardous air pollutant standards for radionuclides at Nuclear Regulatory Commission-licensed facilities. While it acknowledged the general rulemaking authority cited by EPA, the D.C. Circuit found that this general rulemaking authority could not serve as authority to delay the effective date of a rule when another, more-specific CAA section established a statutory deadline.[27] Finding that CAA Section 112(b) mandated a "highly circumscribed schedule" for promulgating the hazardous air pollutant standard at issue, the court concluded,

> In the face of such a clear statutory command, we cannot conclude that section 301 provided EPA with the authority to stay regulations that were subject to the deadlines established by section 112(b).[28]

Whether EPA claims authority to amend the effective date of an existing rule under the general rulemaking authority of CAA Section 301(a) or CAA Section 307(d), this authority is limited, consistent with the court's decision in *NRDC v. Reilly,* to changes that did not contravene a statutory schedule or deadline for the promulgation of that rule.

III. Key Delay Actions Affecting Oil and Gas Operations in the Western States

In 2017, EPA and BLM took steps to stay the implementation of Obama-era regulations under all of the authorities cited above. Following is a brief review of those actions and the authority cited.

A. Methane Rule

The Methane Rule is a federal NSPS promulgated under CAA Section 111 that applies to oil and gas facilities for which construction, modification, or reconstruction started after September 18, 2015. EPA adopted the Methane Rule in June 2016.[29] Building on its 2012 NSPS requirements aimed at reducing VOC emissions from the oil and gas sector, the Methane Rule added requirements that the industry reduce emissions of greenhouse gases ("GHGs"), and covered additional equipment and activities in the oil and gas production chain. The rule set emissions limits for methane, which is the principal GHG emitted by equipment and processes in the oil and gas sector, and (among other requirements) requires owners/operators to find and repair fugitive emissions leaks. While the Methane Rule was effective in June 2016, initial

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[27] *See NRDC v. Reilly,* 976 F.2d at 41.

[28] *Id.*

[29] *See* 40 C.F.R. Part 60, Subpart OOOOa (40 C.F.R. § 60.5360a et seq., adopted at 81 Fed. Reg. 35824 (June 3, 2016).

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compliance with the fugitive emissions monitoring requirements was not required until June 2017, 12 months after the effective date of the rule.[30]

On April 18, 2017, EPA Administrator Pruitt announced that EPA would convene a proceeding to reconsider certain elements of the Methane Rule.[31] The rule elements that were identified as specific subjects of the reconsideration proceeding include: (1) the fugitive emissions monitoring and repair requirements of 40 C.F.R. § 60.5379a, including the inclusion of low-production wells and the provisions relating to approvals for alternative means of compliance; (2) the requirement that the design and capacity assessment of a closed vent system used to comply with the rule be performed by a Professional Engineer; and (3) the requirement that the determination that it is technically infeasible to route a pneumatic pump to a control device or process be made and certified by a Professional Engineer.

Following the letter announcing reconsideration, EPA took action to delay the compliance dates for those Methane Rule requirements during the reconsideration process. In a June 5, 2017 Federal Register notice of reconsideration, EPA announced an initial 90-day administrative stay under CAA Section 307(d)(7)(B).[32] EPA then, on June 16, proposed an additional, separate two-year stay of the same requirements, to give the agency sufficient time to propose, take public comment, and issue a final action on the Methane Rule requirements for which EPA granted reconsideration.[33,34] While the Federal Register proposal fails to identify any specific statutory authority for the change to the compliance deadlines, the approach taken by EPA in the June 2017 proposal is consistent with its general statutory authority to amend rules through notice-and-comment rulemaking.

Given the June 3, 2017 deadline for conducting an initial fugitive emissions monitoring survey at well sites and compressor stations,[35] members of the regulated community hoped that

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[30] 40 C.F.R. § 60.5397a(f)(1)&(2).

[31] Letter from EPA Administrator E. Scott Pruitt to Howard J. Feldman, American Petroleum Institute (April 18, 2017) < https://www.epa.gov/sites/production/files/2017-04/documents/oil_and_gas_fugitive_emissions_monitoring_reconsideration_4_18_2017.pdf >.

[32] 82 Fed. Reg. 25730 (June 5, 2017).

[33] 82 Fed. Reg. 27645 (June 16, 2017).

[34] Note that, in addition to the two-year stay, on this same date, EPA proposed a separate 90-day stay of the Methane Rule, also with no specific authority cited in the Federal Register. 82 Fed. Reg. 26741 (June 16, 2017). This separate 90-day stay was proposed by EPA in an attempt to ensure that the Methane Rule requirements covered by the initial 90-day administrative stay would not spring back into effect, if the proposed two-year stay did not become final prior to the expiration of the initial 90-day administrative stay. *See* 82 Fed. Reg. at 27641. Because the proposed two-year stay would likely be determined to be a "major rule" under the Congressional Review Act with a delayed effective date (60 days after publication or after Congress receives the rule report, whichever is later), EPA proposed the second 90-day stay to fill any "gap" between the expiration of the initial 90-day administrative stay and the start of the longer two-year stay.

[35] 40 C.F.R. § 60.5397a(f)(1)&(2).

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EPA's stays of the Methane Rule requirements – the initial 90-day administrative stay and the subsequent stays promulgated through notice-and-comment rulemaking – would line up in a way that avoided a "springing," temporary requirement with changes in applicability. That has not been the case, however, as (1) the initial 90-day stay was struck down, as discussed in greater detail below, and (2) EPA did not finalize the proposed two-year stay in prior to the end of 2017. EPA did, however, issue a Notice of Data Availability for the pending proposal in November 2017 that sought comment on the three key substantive issues covered by the reconsideration and addressed, in significant detail, EPA's authority for the proposed stay of those Methane Rule requirements.[36]

In summarizing a lengthy discussion of its legal authority to change compliance deadlines for the Methane Rule requirements, EPA states,

> [T]he EPA has legal authority to amend the 2016 Rule to either stay certain provisions or otherwise revise certain aspects of the rule. The EPA promulgated the 2016 Rule pursuant to section 111(b)(1)(B) of the CAA in accordance with the notice-and-comment rulemaking procedures under section 307(d) of the CAA. 81 FR 35828. The EPA is using the same statutory authority and following the same procedures in the present rulemaking to amend the 2016 Rule to stay certain requirements (as described in the June 16, 2017, proposal) or make the suggested changes to aspects of these requirements as described in this action (*i.e.*, extension or provision of "phase-in" periods). In addition, section 301(a) of the CAA provides the Agency with broad authority to prescribe regulations, including revisions to prior rulemakings, as necessary to carry out the Administrator's authorized functions under the statute. "The power to decide in the first instance carries with it the power to reconsider."[37]

EPA asserts its statutory authority under the CAA either to stay Methane Rule compliance deadlines, or to accomplish the same goal through amending the rule to provide "phase-in" periods, and solicits public comment on its exercise of that authority.[38]

B. BLM Waste Prevention Rule

BLM adopted the Waste Prevention Rule on November 18, 2016.[39] BLM stated that the purpose of the Waste Prevention Rule was "to reduce waste of natural gas from venting, flaring, and leaks during oil and natural gas production activities on onshore Federal and Indian (other

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[36] 82 Fed. Reg. 51788 (Nov. 8, 2017).

[37] 82 Fed. Reg. at 51789 (omitting cases cited).

[38] 82 Fed. Reg. at 51791.

[39] 43 C.F.R. § 3162.3-1; 43 C.F.R. §§ 3179.7-3179.301, adopted at 81 Fed. Reg. 83008 (Nov. 18, 2016).

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than Osage Tribe) leases."[40] The Waste Prevention Rule seeks to reduce those methane emissions by regulating venting, flaring, and fugitive emissions from the exploration and production activities subject to the rule. Owners and operators must adopt available technologies to limit flaring at wells, and inspect for fugitive leaks and repair or replace equipment that vents methane emissions. While the rule had an effective date of January 17, 2017, the compliance date for a number of BLM Waste Prevention Rule requirements, including those relating to flaring and fugitive emissions monitoring and repair, was January 17, 2018.[41]

On June 15, 2017, BLM issued a Federal Register notice that it was postponing the compliance dates for those Waste Prevention Rule requirements with a January 17, 2018 compliance date.[42] Citing APA Section 705 and the pending court challenge to the Waste Prevention Rule, BLM indefinitely postponed the compliance date for those requirements.[43] The notice states,

> Considering the substantial cost that complying with these requirements poses to operators . . . and the uncertain future these requirements face in light of the pending litigation and administrative review of the Rule, the BLM finds that justice requires it to postpone the future compliance dates.[44]

Acknowledging that APA Section 705 grants agencies the authority to stay the *effective date* of a rule,[45] BLM asserted that the future (January 2018) *compliance dates* for the Waste Prevention Rule requirements are within the meaning of the term "effective date" as it is used in the APA.[46] BLM stated that it was using APA Section 705 to preserve the regulatory status quo while the rule-challenge litigation is pending, and while BLM reviews and reconsiders the rule.[47] BLM further stated that it intended to conduct notice-and-comment rulemaking "to suspend or extend the compliance dates" of the Waste Prevention Rule requirements with a January 2018 compliance deadline.[48]

BLM initiated the notice-and-comment rulemaking that was referenced in its APA Section 705 notice in October 2017. On October 5, 2017, BLM issued a proposed rule to temporary suspend or delay the compliance date for those Waste Prevention Rule requirements

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[40] 81 Fed. Reg. at 83008.

[41] *See, e.g.,* 43 C.F.R. §§ 3179.7(b)(1) (gas capture percentage requirement); 3179.9(b)(1) (flaring measurement); 3179.201(d) (pneumatic controller requirements); 3179.203(c) (storage vessel controls); 3179.301(f) (fugitive emissions leak detection and repair requirements).

[42] 82 Fed. Reg. 27430 (June 15, 2017).

[43] 82 Fed. Reg. at 27431.

[44] *Id.*

[45] APA § 705 [5 U.S.C. § 705].

[46] 82 Fed. Reg. at 27431.

[47] *Id.*

[48] *Id.*

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to January 17, 2019.[49] While the proposed rule acknowledges the pending judicial review of the Waste Prevention Rule, the proposal does not rely on the court challenge as grounds for changing the compliance dates:

> The BLM is currently reviewing the 2016 final rule, as directed by the aforementioned Executive Orders and by Secretarial Order No. 3349. The BLM wants to avoid imposing temporary or permanent compliance costs on operators for requirements that might be rescinded or significantly revised in the near future. The BLM also wishes to avoid expending scarce agency resources on implementation activities (internal training, operator outreach/education, developing clarifying guidance, etc.) for such potentially transitory requirements.[50]

As far as statutory authority, BLM proposes to suspend and delay the compliance dates not under the APA, but rather pursuant to its general rulemaking authority under the same statutes that granted it authority to promulgate the Waste Prevention Rule.[51]

BLM took public comment on the proposal, and on December 8, 2017, adopted the compliance date changes as a final rule.[52] For those Waste Prevention Rule requirements that had not yet reached the January 17, 2018 compliance date, the final rule postponed the implementation of those requirements for one year, to January 17, 2019.[53] And for certain elements of the rule that were already in effect, the final rule temporarily suspended their effectiveness until January 17, 2019.[54]

C. Risk Management Plan Amendments

EPA's Risk Management Plan ("RMP") requirements, promulgated under the authority of CAA Section 112(r),[55] do not apply to a number of oil and gas exploration and production sources. RMP applicability typically starts at a natural gas processing plant that is engaged in the extraction of natural gas liquids from field gas or the fractionation of mixed natural gas

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[49] 82 Fed. Reg. 46458 (Oct. 5, 2017).

[50] 82 Fed. Reg. at 46460.

[51] *Id.* (citing The Mineral Leasing Act of 1920 (30 U.S.C. §§ 181-287), the Mineral Leasing Act for Acquired Lands of 1947 (30 U.S.C. §§ 351-360), the Federal Oil and Gas Royalty Management Act of 1982 (30 U.S.C. §§ 1701-1758), the Federal Land Policy and Management Act of 1976 (43 U.S.C. §§ 1701-1785), the Indian Mineral Leasing Act of 1938 (25 U.S.C. §§ 396a-g), the Indian Mineral Development Act of 1982 (25 U.S.C. §§ 2101-2108), and the Act of March 3, 1909 (25 U.S.C. § 396)).

[52] 82 Fed. Reg. 58050 (Dec. 8, 2017).

[53] 82 Fed. Reg. at 58051.

[54] *Id.*

[55] 42 U.S.C. § 7412(r).

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liquids to natural gas products.[56] Gas plants that are subject to the RMP program must prepare and submit a Plan that (1) assesses the potential hazards associated with an accidental release of hazardous air pollutants from the site, (2) works to prevent accidental releases of hazardous air pollutants through safety precautions, maintenance, monitoring, and employee training, and (3) establishes an emergency response program that will be implemented should such an accidental release occur.[57]

EPA published amendments to the 40 C.F.R. Part 68 RMP rule in the final days of the Obama administration.[58] Those amendments changed a number of RMP program elements, including compliance audits, the process hazard analysis ("PHA") process, emergency response drills and preparedness activities, and information sharing with the public and local emergency responders. While the compliance date for most of the substantive RMP changes was four years after the effective date of the amendments, implementation of the changes would require action well in advance of the compliance date, and other requirements – most notably an expansion in scope of compliance audits – would affect sources after the amendments became effective. The original effective date of the RMP rule amendments was March 14, 2017.[59]

The RMP rule amendments were the subject of significant scrutiny and several regulatory developments after the final rule was published in the Federal Register. Petitions for reconsideration were filed by two industry groups and a coalition of states, and in response, EPA extended the effective date of the amendments twice: first pushing the original effective date back to March 21, 2017,[60] and then a further 90-day delay to June 19, 2017.[61] EPA cited CAA Section 307(d)(7)(B) – the same authority cited in the initial 90-day stay of the Methane Rule – as the authority for the 90-day administrative stay of the effective date of the RMP rule amendments.

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[56] *See* 40 C.F.R. § 68.115(b)(2)(iii) ("Prior to entry into a natural gas processing plant or a petroleum refining process unit, regulated substances in naturally occurring hydrocarbon mixtures need not be considered in determining whether more than a threshold quantity is present at a stationary source."); 40 C.F.R. § 68.3 (defining "natural gas processing plant" as "any processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both, classified as North American Industrial Classification System (NAICS) code 211112 (previously Standard Industrial Classification (SIC) code 1321).")

[57] *See generally* 40 C.F.R. Part 68.

[58] 82 Fed. Reg. 4594 (Jan. 13, 2017).

[59] *Id.*

[60] 82 Fed. Reg. 8499 (Jan. 26, 2017). This initial, 7-day delay of the effective date of the RMP amendments was part of an EPA final rule implementing a memorandum dated January 20, 2017, from the Assistant to the President and Chief of Staff, entitled "Regulatory Freeze Pending Review." This memorandum directed the heads of agencies to postpone until 60 days after the date of its issuance the effective date of rules that were published prior to January 20, 2017 but which had not yet become effective.

[61] 82 Fed. Reg. 13968 (Mar. 16, 2017).

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As with the Methane Rule and the BLM Waste Prevention Rule, the agency followed the initial stay notice with notice-and-comment rulemaking to delay the rule. On April 3, 2017, EPA published a proposed rule that would delay the effective date of the RMP rule amendments by 20 months, to February 19, 2019.[62] EPA explained in the proposal that the three months afforded by the administrative stay has been shown to be insufficient to complete the reconsideration process in the past, and that the additional delay would allow the agency to evaluate the issues raised in the petitions for reconsideration.[63] With regard to its statutory authority to change the effective date, EPA stated, "[w]e believe this practice is consistent with our rulemaking authority under CAA 307(d), which generally allows the EPA to set effective dates as appropriate unless other provisions of the CAA control."[64]

EPA adopted the proposed delay as a final rule in a Federal Register notice published on June 14, 2017.[65] (Note that, in the case of the RMP amendments, EPA was able to finalize the notice-and-comment date change prior to the expiration of the 90-day administrative stay.) The final rule again asserts that EPA has the authority to take the action under CAA Section 307(d).[66] EPA responds to public comment regarding its authority to change the effective date in the preamble to the final rule. In the response to comments, EPA disagrees with commenters' assertion that the 90-day administrative stay provided under CAA Section 307(d)(7)(B) is the only stay allowed when an EPA rule is under reconsideration.[67] EPA further discusses the limitations on its rule making authority established in *NRDC v. Reilly*, discussed above. EPA distinguishes the CAA requirements under the RMP program from the "highly circumscribed schedule for promulgating hazardous air pollutant rules" at issue in *Reilly*, and asserts that the *Reilly* decision did not prohibit EPA from finalizing the 20-month delay in the effective date of the RMP rule amendments.[68]

IV. Judicial Review of EPA's and BLM's Delay Actions

EPA's and BLM's 2017 delay actions have been challenged in court. The Federal Register notice of the initial CAA Section 307(d)(7)(B) 90-day administrative stay of the Methane Rule was challenged in the U.S. Court of Appeals for the District of Columbia Circuit in *Clean Air Council v. Pruitt*.[69] (As of this writing, EPA has not yet finalized its proposed rule to further Methane Rule compliance dates; as a result, there is no final rule to challenge.) BLM's APA Section 705 stay of the Waste Prevention Rule was challenged by various groups in the

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[62] 82 Fed. Reg. 16146 (Apr. 3, 2017).

[63] 82 Fed. Reg. at 16148.

[64] *Id.*

[65] 82 Fed. Reg. 27133 (June 14, 2017).

[66] 82 Fed. Reg. at 27135.

[67] *Id.*

[68] 82 Fed. Reg. at 27137.

[69] *Clean Air Council v. Pruitt*, No. 17-1145 (D.C. Cir., July 3, 2017).

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U.S. District Court for the Northern District of California, in *Sierra Club v. Zinke*.[70] (The same plaintiffs have challenged the one-year delay to the Waste Prevention Rule compliance dates that BLM finalized in December 2017.[71]) Additionally, the final rule delaying the effective date of the RMP amendments under CAA Section 307(d) has been challenged in the D.C. Circuit in *Air Alliance Houston v. EPA*.[72] The balance of this paper will review the court decisions in the Methane Rule and BLM Waste Prevention Rule cases and discuss their implications, both for the regulated community subject to the rules and for EPA's other efforts to stay or delay the implementation of Obama-era rules.

A. *Clean Air Council v. Pruitt:* CAA Administrative Stay of the Methane Rule

EPA's 90-day CAA Section 307(d)(7)(B) administrative stay of the Methane Rule compliance dates was challenged in the U.S. Court of Appeals for the D.C. Circuit, in *Clean Air Council v. Pruitt.* On July 3, 2017, a D.C. Circuit panel issued a decision vacating that initial stay.[73]

As described above, CAA Section 307(d)(7)(B) gives EPA the authority to convene a reconsideration proceeding where a commenter raises an objection and can demonstrate that it was impracticable to raise that objection during the public comment period, or that the grounds for the objection arose after the close of the comment period. The court, in a 2-1 decision,[74] in which one member of the panel dissented, found that it was *not* impracticable for the industry petitioners to have raised, during the rulemaking process, the issues that EPA cited as grounds for the reconsideration and stay of the rule.[75] In rejecting EPA's grounds for convening a reconsideration proceeding, the court necessarily rejected EPA's grounds for issuing the 90-day administrative stay that EPA has the option to issue when it convenes a reconsideration proceeding. The court also rejected EPA's claim that, separate and apart from CAA Section 307, it had "inherent authority" to issue a brief stay of the Methane Rule during reconsideration.[76]

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[70] *Sierra Club v. Zinke*, Case No. 3:17-CV-03885 (N.D. Cal., Oct. 4, 2017).

[71] *Sierra Club v. Zinke*, Case No. 3:17-CV-07187 (N.D. Cal.); *California v. U.S. Bureau of Land Mgm't*, Case No. 3:17-CV-07186 (N.D. Cal.) (complaints filed December 19, 2017).

[72] *Air Alliance Houston v. EPA*, No. 17-1155 (D.C. Cir.). In contrast to the Methane Rule, the initial 90-day administrative stay of the RMP amendments effective date under CAA Section 307(d)(7)(B) was not challenged in court.

[73] *Clean Air Council v. Pruitt*, No. 17-1145 (D.C. Cir., July 3, 2017).

[74] One member of the panel dissented, taking the position that EPA's issuance of the initial administrative stay was not a "final agency action" subject to judicial review. *Clean Air Council v. Pruitt,* No. 17-1145, Dissenting Opinion at 8. The two judges that issued the majority opinion were appointed during Democratic administrations; the dissenting judge was appointed during a Republican administration.

[75] *Clean Air Council v. Pruitt*, No. 17-1145 at 23.

[76] *Clean Air Council v. Pruitt*, No. 17-1145 at 12.

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Finding that there was no basis for the mandatory reconsideration or stay of the Methane Rule, the D.C. Circuit panel vacated EPA's administrative stay. At the same time, the court acknowledged that its decision was limited in scope:

> We emphasize, however, that nothing in this opinion in any way limits EPA's authority to reconsider the final rule and to proceed with its June 16 NPRM [i.e., the June 16, 2017 proposed rule that would delay the effective date of these Methane Rule requirements by two years]. Although EPA had no section 307(d)(7)(B) *obligation* to reconsider the methane rule, it is free to do so as long as "the new policy is permissible under the statute . . , there are good reasons for it, and . . . the agency *believes* it to be better.[77]

Nothing in the July 3 decision limits EPA's authority to reconsider the Methane Rule, or to proceed with the proposed two-year delay in effective date for those Methane Rule requirements.

On August 10, 2017, the D.C. Circuit rejected the petitions filed by industry groups and intervenor-states for *en banc* rehearing of the panel's earlier decision, and the panel's original decision vacating the CAA Section 307(d)(7)(B) administrative stay remains in effect.[78]

B. *Sierra Club v. Zinke:* APA Section 705 Stay of the BLM Waste Prevention Rule

BLM's APA Section 705 stay of the Waste Prevention Rule was challenged in the U.S. District Court for the Northern District of California, in *Sierra Club v. Zinke*.[79] On October 4, 2017, the court issued an order granting the plaintiffs' motions for summary judgment and vacated BLM's initial stay of the Waste Prevention Rule compliance dates.

At issue in the *Sierra Club v. Zinke* case was whether BLM correctly interpreted the APA when it used APA Section 705 to delay the compliance date of the Waste Prevention Rule requirements. The court initially held that BLM's interpretation of APA Section 705 was not entitled to *Chevron*[80] deference, because that deference is only warranted when an agency is exercising authority delegated to it by Congress, and Congress has not delegated to BLM the authority to administer the APA.[81] APA Section 705 states, "[w]hen an agency finds that justice so requires, it may postpone the *effective date* of an action taken by it, pending judicial review."[82] Focusing on the language of APA Section 705, the plaintiffs argued that the postponement of a rule's compliance deadlines after the rule had already gone into effect was

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[77] *Clean Air Council v. Pruitt*, No. 17-1145 at 23.

[78] *Clean Air Council v. Pruitt*, No. 17-1145, Order Denying Petitions for Rehearing En Banc (Aug. 10, 2017).

[79] *Sierra Club v. Zinke*, Case No. 3:17-CV-03885 (N.D. Cal., Oct. 4, 2017).

[80] *Chevron U.S.A., Inc. v. Natural Res. Defense Council*, 467 U.S. 837, 842 (1984).

[81] *Sierra Club v. Zinke*, Case No. 3:17-CV-03885 at 11.

[82] APA § 705 [5 U.S.C. § 705] (emphasis added).

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contrary to the statute. The court agreed with the plaintiffs that "[t]he plain language of the statute authorizes postponement of the 'effective date,' not 'compliance dates.'"[83] The court further found that, because the effective date of the Waste Prevention Rule had already passed, the BLM's APA Section 705 notice was "effectively a repeal" of the rule – and that the repeal of a rule required notice and comment under the APA.[84]

The court also evaluated BLM's stated justification for the APA Section 705 stay. As noted above, BLM had stated that postponing the compliance date was justified while it reviewed and reconsidered the rule, and also pointed to the pending judicial challenge to the Waste Prevention Rule.[85] The court, however, found that BLM had merely "paid 'lip service'" to the pending judicial review.[86] With regard to BLM finding that "justice so required" the delay of the compliance dates, the court found that BLM "entirely failed to consider the benefits of the Rule, such as decreased resource waste, air pollution, and enhanced public revenues" and rejected BLM's arguments that there were no limitations on an agency's determination of what justice requires under APA Section 705.[87] Based on a determination that BLM had failed to consider both the costs *and* benefits of postponing the compliance date, the court found that BLM's determination that justice required the stay was arbitrary.[88]

The court was not sympathetic to arguments that vacating the stay would cause those Waste Prevention Rule requirements with compliance due January 2018 to spring back to life, and vacated BLM's APA Section 705 stay of the compliance dates.[89] On December 5, 2017, BLM appealed the district court's decision to the U.S. Court of Appeals for the Ninth Circuit.

V. Implications of the Court Decisions

A. Methane Rule Implications for the Regulated Community

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[83] *Sierra Club v. Zinke*, Case No. 3:17-CV-03885 at 12.

[84] *Sierra Club v. Zinke*, Case No. 3:17-CV-03885 at 16 (also citing *Safety-Kleen Corp. v. EPA*, 1996 U.S. App. LEXIS, at *2 (D.C. Cir., Jan. 19, 1996) for the proposition that APA Section 705 does not permit an agency to suspend a promulgated rule without notice and comment).

[85] 82 Fed. Reg. at 27431.

[86] *Sierra Club v. Zinke*, Case No. 3:17-CV-03885 at 17.

[87] *Id.*

[88] *Sierra Club v. Zinke*, Case No. 3:17-CV-03885 at 18. The parties disputed whether BLM was required to make findings using the four-factor preliminary injunction test when using APA Section 705 to postpone a compliance date, as the U.S. District Court for the District of Columbia held in *Sierra Club v. Jackson*, 833 F.Supp.2d 11 (D.D.C. 2012). The *Sierra Club v. Zinke* court did not reach the issue, based on its finding that BLM's decision was arbitrary and capricious based on its failure to consider the foregone benefits associated with postponing the compliance date of the Waste Prevention Rule.

[89] *Sierra Club v. Zinke*, Case No. 3:17-CV-03885 at 24-25.

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The vacatur of EPA's CAA Section 307(d)(7)(B) administrative stay of the Methane Rule requirements created significant uncertainty for the regulated community.

Under the Methane Rule, affected sources had a June 3, 2017 deadline to conduct their first fugitive emissions monitoring surveys and begin repairing leaks.[90] EPA published the notice of administrative stay on June 5, 2017, though the notice states that it is effective as of June 2, 2017.[91] EPA then proposed the follow-on 90-day and two-year stays under separate authority in an attempt to ensure that the stayed Methane Rule requirements would *remain* stayed for the duration of the reconsideration proceeding. With the initial administrative stay vacated on July 3, 2017, the court has created the scenario that EPA was attempting to avoid: the Methane Rule fugitive monitoring requirements springing back into place based on the court's decision, though likely only for an interim period, as EPA moved forward with the additional two-year stay proposed under separate authority.

The fugitive monitoring requirements sprung back into effect immediately upon issuance of the D.C. Circuit's opinion because the court *also* issued its mandate on July 3, 2017. The D.C. Circuit does not always issue the mandate on the same day that it issues a decision; the mandate making the decision effective is frequently issued 45 days after the issuance of the decision. For this Methane Rule stay decision, however, both the decision and the mandate were issued on July 3, and there was no lag between (A) the court's decision to vacate the stay and (B) the stay actually being vacated.

EPA subsequently filed a request that the court withdraw or recall the mandate, so that the regulated community would "be afforded a reasonable amount of time to make the necessary adjustments to ensure compliance." EPA also stated that it needed more time to evaluate its options for appeal and to figure out what it must do, implementation-wise. On July 13, 2017, the court issued an Order granting EPA's request in-part and withdrawing the mandate for 14 days. In accordance with that Order, the court's decision to vacate EPA's 90-day administrative stay of the Methane Rule took effect on July 28, 2017.

While the D.C. Circuit's decision to temporarily withdraw the mandate delayed the applicability of the Methane Rule fugitive monitoring requirements, it made little impact on the challenging situation facing the regulated community. The Methane Rule fugitive monitoring requirements (along with the other requirements subject to the administrative stay) sprung back into effect on July 28, 2017 – though EPA is proceeding with the rulemaking that would delay the compliance dates for those requirements. As a result, the regulated community is in a period during which these Methane Rule requirements are effective and compliance required (starting July 28, 2017), but that period of applicability will likely end when EPA finalizes its proposed longer Methane Rule stays under separate authority. (It was initially anticipated that EPA would finalize the two-year delay in September 2017; that did not occur and EPA has not finalized the proposed delay as of January 2018). Adding to the confusion is the fact that any future EPA amendment of the Methane Rule to delay compliance with these requirements will assuredly be challenged in court, just like the initial 90-day administrative stay.

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[90] *See* 40 C.F.R. § 60.5397a(f).

[91] 82 Fed. Reg. 25730 (June 5, 2017).

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The vacatur of the initial stay created a confusing situation for the regulated community. While sources subject to the Methane Rule would appear reasonable in relying on EPA exercising its enforcement discretion with regard to these requirements, the reaction of state agencies may be less consistent. In addition, there may be risk of citizen suits – though if these Methane Rule requirements once again "disappear" with subsequent EPA rulemaking further delaying the compliance date, that action may frustrate any potential CAA citizen suit activity with regard to these provisions, given the advance notification requirements and that a CAA citizen suit seek redress for ongoing or repeat violations.[92]

B. BLM Waste Prevention Rule Implications for the Regulated Community

While 2017 was a year of uncertainty for those subject to the BLM Waste Prevention Rule, the speed with which BLM completed the notice-and-comment rulemaking to change the compliance deadline for the Waste Prevention Rule requirements resolved much of the short-term uncertainty for the regulated community.

As stated above, BLM's delay actions were aimed at Waste Prevention Rule requirements relating to flaring, fugitive emissions leak detection and repair, and other requirements that had a compliance date of January 17, 2018.[93] BLM stayed those requirements on June 15, 2017.[94] That stay action was promptly challenged in court, with the court ultimately vacating BLM's notice staying the compliance dates on October 4, 2017.[95] As a result, the Waste Prevention Rule compliance deadlines came back to life, three months before the deadline.

On October 5, 2017, one day after the court's decision vacating BLM's APA Section 705 stay of the Waste Prevention Rule compliance deadline, the proposed rule to postpone the compliance date by one year to January 17, 2019, hit the Federal Register.[96] BLM then adopted the new January 2019 compliance dates in a final rule published on December 8, 2017.[97] With the December 2017 final rule – with an effective date of January 8, 2019 – BLM was able to amend the Waste Prevention Rule to change the compliance deadlines for the gas capture, flaring, pneumatic controller, storage vessel, and fugitive emissions leak detection and repair requirements prior to the original effective date. As a result, while the BLM Waste Prevention Rule regulated community faced uncertainty throughout the year regarding its near-future (January 2018) compliance requirements, it was not subject to the kind of springing requirements that plagued those subject to the Methane Rule.

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[92] *See* CAA § 304(a)(1) [42 U.S.C. § 7604(a)(1)].

[93] *See, e.g.,* 43 C.F.R. §§ 3179.7(b)(1) (gas capture percentage requirement); 3179.9(b)(1) (flaring measurement); 3179.201(d) (pneumatic controller requirements); 3179.203(c) (storage vessel controls); 3179.301(f) (fugitive emissions leak detection and repair requirements).

[94] 82 Fed. Reg. 27430 (June 15, 2017).

[95] *Sierra Club v. Zinke*, Case No. 3:17-CV-03885 (N.D. Cal., Oct. 4, 2017).

[96] 82 Fed. Reg. 46458 (Oct. 5, 2017).

[97] 82 Fed. Reg. 58050 (Dec. 8, 2017).

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Companies subject to the BLM Waste Prevention Rule remain under a cloud of uncertainty, given the judicial challenge to BLM's final rule change the compliance dates, but BLM's ability to adopt a final rule changing the compliance date prior to the original compliance date helped accomplish BLM's goal "to avoid imposing temporary or permanent compliance costs on operators for requirements that might be rescinded or significantly revised in the near future."[98]

C. Implications for Other Regulatory Delay Actions

EPA's administrative stay of the Methane Rule was the first EPA stay of an Obama-era rule to face judicial review – and the challenge to that stay was successful. The administration then had another high-profile setback when the court vacated BLM's initial stay of the Waste Prevention Rule.

In evaluating the potential broader implications of the Methane Rule and BLM Waste Prevention Rule stay decisions, however, it appears unlikely that these first two decisions will dictate the outcome of the legal challenges to the stay or delay actions for other rules (or for the agencies' own regulatory actions amending the rules' compliance dates). The Methane Rule stay decision was focused on whether a reconsideration was mandatory under CAA Section 307(d)(7)(B). The BLM Waste Prevention Rule decision addressed a stay under APA Section 705. Moreover, the decisions are based on the administrative record in each particular case. While both decisions signal that courts may hold an agency's feet to the fire with regard to the grounds for a stay, or for the mandatory reconsideration of the a rule promulgated by the prior administration, the Methane Rule court itself emphasized that its holding was a narrow one – even within the realm of what was happening to the Methane Rule.

Most importantly, the court setbacks handed EPA and BLM were both in the context of the initial stays issued for the two rules – stays that *did not* involve notice and comment rulemaking. The Methane Rule and BLM Waste Prevention Rule decisions may have implications for other, initial CAA Section 307(d)(7)(B) or APA Section 705 stays, but those decisions should not establish precedent for the challenge of a final rule in which an agency has amended its rule to change the compliance date for a particular requirement, following notice and public comment. The outcomes of those cases – including the challenges to the final rules changing the compliance dates in the Methane Rule and Waste Prevention Rule and the effective date of the RMP amendments – will be driven by a separate set of legal issues, and will be based on the administrative records developed in those actions. Those issues will include:

- Does EPA have the authority to change the effective date of a recently adopted rule during a reconsideration proceeding *outside* of the administrative stay provided by CAA Section 307(d)(7)(B)?

- Does the agency have the statutory authority to make an amendment that changes the compliance date of its rule?

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[98] *See* 82 Fed. Reg. at 46460.

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- Is the change in compliance date for a rule inconsistent with any statutory requirement?

- Has the agency provided a reasoned explanation in the administrative record for the change in compliance date following the notice-and-comment rulemaking process? And how does that explanation address the grounds set forth by the prior administration in establishing the initial compliance date?

While EPA's and BLM's initial attempts to delay compliance with rules adopted by the prior administration did not hold up under judicial review, plaintiffs will have to prevail on a separate set of issues in challenging any change to a compliance deadline resulting from notice-and-comment rulemaking.

VII. Conclusion

EPA is working to stay or delay the implementation of a number of Obama-era rules, and has relied on different forms of statutory authority in doing so. While the decisions in the Methane Rule and the BLM Waste Prevention Rule cases were setbacks for EPA, those cases should not serve as precedent or otherwise drive the outcome in the judicial review of EPA's actions in further delaying the Methane Rule, or BLM's actions in amending the Waste Prevention Rule to change the compliance dates, or in any other challenge to an action seeking to delay implementation of an agency's own rules. While defending their initial stays, EPA and BLM have focused on changing those dates through notice-and-comment rulemaking which, while slower than issuance of a stay notice under other laws, provides the agencies broader authority to change compliance deadlines, consistent with the authority to amend any aspect of their rules.

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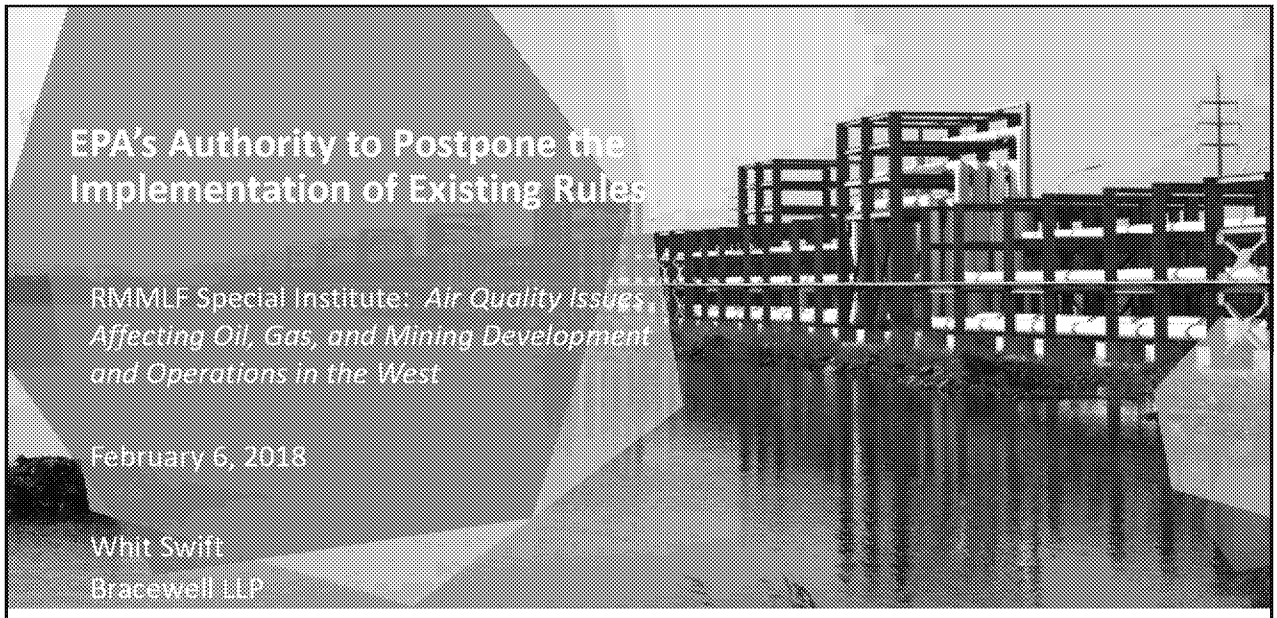
EPA's Authority to Postpone the Implementation of Existing Rules
RMMLF Special Institute: *Air Quality Issues Affecting Oil, Gas, and Mining Development and Operations in the West*
February 6, 2018
Whit Swift
Bracewell LLP

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EPA'S AUTHORITY TO POSTPONE IMPLEMENTATION OF EXISTING RULES

- Rules involved and authorities cited by EPA and BLM for stay or delay
- Court decisions on the Methane Rule and BLM Methane and Waste Prevention Rule stays
- Implications of the court decisions:
  - Methane Rule regulated community
  - BLM Methane and Waste Prevention Rule regulated community
  - Other EPA and BLM regulatory delay actions

2

STAYS AND DELAYS: STATUTORY AUTHORITY

- CAA Section 307(d)(7)(B): stay pending reconsideration
  - Single *Federal Register* notice
  - Grounds for convening reconsideration proceeding must be present
  - The effectiveness of the rule may be stayed during such reconsideration
  - Limited to three months

3

STAYS AND DELAYS: STATUTORY AUTHORITY

- APA Section 705: stay pending judicial review
  - Single *Federal Register* notice
  - Rule must be subject to judicial review
  - Not limited in time
  - Agency must find that "justice so requires" it to postpone the effective date

4

STAYS AND DELAYS: STATUTORY AUTHORITY

- General authority to promulgate and amend regulations
  - Notice-and-comment rulemaking
  - Same statutory authority for promulgating the underlying requirements
  - Consistency with all statutory requirements – *NRDC v. Reilly*
- Clean Air Act § 307(d)
- Clean Air Act § 301(a)

5

STAYS AND DELAYS: METHANE RULE

- Applicability
- Effective date: June 3, 2016
- Key substantive requirements
  - Fugitive emissions monitoring and repair
  - P.E. perform design and capacity assessment for closed-vent system
  - P.E. make determination regarding technical feasibility of pneumatic pump controls
- Compliance date: June 3, 2017

6

STAYS AND DELAYS: METHANE RULE

- April 2017: Administrator announces reconsideration
- June 2017: Notice of 90-day administrative stay under CAA § 307(d)(7)(B)
- June 2017: Proposed Rule – two-year delay of compliance date
  - No specific authority cited
- *July 2017: court strikes down initial administrative stay*
- November 2017: Notice of Data Availability
  - Discussion of statutory authority (CAA § 307(d); CAA § 301(a))

7

STAYS AND DELAYS: BLM METHANE AND WASTE PREVENTION RULE

- Applicability
- Final Rule published: November 18, 2016
- Effective date: January 17, 2017
- Key substantive requirements
  - Fugitive emissions monitoring and repair
  - Flaring
  - Storage vessel
  - Pneumatic controllers
  - Gas capture percentage
- Compliance date: January 17, 2018

8

STAYS AND DELAYS: BLM METHANE AND WASTE PREVENTION RULE

- June 2017: Notice of APA § 705 postponement of compliance dates
- October 2017: Proposed Rule – one-year delay of compliance date
- *October 2017: court strikes down initial APA § 705 stay*
- December 2017: Final Rule – one-year delay of compliance date

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STAYS AND DELAYS: RMP RULE AMENDMENTS

- Applicability
- Final Rule published: January 13, 2017
- Effective date: March 14, 2017
- Key substantive requirements
  - Compliance audits
  - Process Hazard Analysis (PHA)
  - Emergency response drills and preparedness
  - Information sharing with the public and local emergency responders
- Compliance dates: four years after effective date

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STAYS AND DELAYS: RMP RULE AMENDMENTS

- March 2017: Notice of 90-day administrative stay under CAA § 307(d)(7)(B)
  - New effective date: June 19, 2017
- April 2017: Proposed Rule – 20-month delay of effective date
  - CAA § 307(d)
- June 2017: Final Rule – 20-month delay of effective date
  - CAA § 307(d)
  - New effective date: February 19, 2019

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METHANE RULE DECISION: D.C. CIRCUIT

- *Clean Air Council v. Pruitt*, No. 17-1145 (D.C. Cir., July 3, 2017)
- Challenge to initial 90-day administrative stay under **CAA § 307(d)(7)(B)**
- 2-1 decision vacating the stay
  - It was not impracticable for commenters to have raised the issues cited by EPA as basis for the reconsideration and stay
  - EPA has no "inherent authority" to issue a brief stay during reconsideration
- Decision does not:
  - Limit EPA's authority to reconsider the rule; or
  - Limit EPA's authority to proceed with the 2-year stay proposed on June 16, 2017
- July 28, 2017: mandate issues and stayed requirements spring back into effect

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METHANE AND WASTE PREVENTION RULE DECISION: N.D. CAL.

- *Sierra Club v. Zinke*, No. 3:17-CV-03885 (N.D. Cal., Oct. 4, 2017)
- Challenge to initial stay under **APA § 705**
- Stay vacated by district court
  - No *Chevron* deference granted BLM when interpreting the APA
  - APA § 705 – "effective date" vs. "compliance date"
  - BLM failed to tie the stay to the judicial review
  - Failure to demonstrate that "justice so requires" the stay
- December 2017: BLM appeals decision to U.S. Court of Appeals for the 9th Circuit

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METHANE RULE DECISION – IMPLICATIONS

- Interim period of rule applicability and compliance requirements
- EPA moving forward with separate 2-year stay
- Judicial review of 2-year stay
- Potential for enforcement and weighing risks
- Compliance self-reporting?

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METHANE AND WASTE PREVENTION RULE DECISION – IMPLICATIONS

- Uncertainty regarding January 2018 obligations
- EPA *completed* separate 1-year stay of compliance date in December 2017
- Judicial review of 1-year stay

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IMPLICATIONS OF THE DECISIONS – OTHER STAYS AND DELAYS

- Methane Rule decision limited to 90-day administrative stay under **CAA § 307(d)(7)(B)**
- BLM Methane and Waste Prevention Rule decision limited to initial stay under **APA § 705**
- Fact-specific determination based on the administrative record
- Challenges to other stays and delays will evaluate EPA's authority under:
  - CAA § 307(d)
  - *CAA § 301(a)*

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THANKS!

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Recent Events and Trends from the State Perspective

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Paper 6

Recent Events and Trends from the State Perspective

Chris Colclasure*

I. Introduction

The Environmental Protection Agency (EPA) has embarked on a regulatory reform agenda, signaling the potential for significant changes to federal air quality regulations. The proposed and foreseeable changes impact state air agencies as well as the regulated community. States may enjoy increased flexibility while facing substantial uncertainty regarding federal regulations, policies and funding. In response, states like Colorado are asserting stronger leadership to fulfill their missions of protecting public health and the environment. This paper examines proposed and potential changes to federal ozone regulations as a case study in federal regulatory reform. The paper analyzes the substantive impacts of these changes in Colorado, with a focus on how regulatory reform causes uncertainty and Colorado's response.

II. EPA Seeks to Reduce Regulatory Burdens and Shift Authority to the States

EPA and the Trump administration have clearly stated their desire to reduce regulatory burdens. The White House asserts that unnecessary regulations hamper economic development and should be relaxed.[1] Three Executive Orders formalize the administration's goals of reducing regulatory burdens and promoting the development of fossil fuels.

A. Executive Order 13,771

The "Two for One" order directs that "[u]nless prohibited by law, whenever an executive department or agency (agency) publicly proposes for notice and comment or otherwise promulgates a new regulation, it shall identify at least two existing regulations to be repealed."[2] To reduce implementation and compliance costs, the order directs that "any new incremental costs associated with new regulations shall, to the extent permitted by law, be offset by the elimination of existing costs associated with at least two prior regulations."[3]

The Two for One order is likely to delay the promulgation of new regulations more often than it leads to the repeal of existing rules. Agencies must follow normal rulemaking procedures when revising or reversing a regulation.[4] The order recognizes this by requiring agencies repealing regulations to "do so in accordance with the Administrative Procedure Act and other applicable law."[5] The rulemaking process is often lengthy or contentious. The added workload of repealing

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* The views expressed in this paper are solely those of the author.

[1] *E.g.,* White House Fact Sheet (Dec. 14, 2017), https://www.whitehouse.gov/briefings-statements/president-donald-j-trumps-year-regulatory-reform-environmental-protection-epa/ ("We're ending intrusive EPA regulations that kill jobs, hurt family farmers and ranchers, and raise the price of energy").

[2] Reducing Regulation and Controlling Regulatory Costs, Exec. Order No. 13,771, 82 Fed. Reg. 9,339 (Feb. 3, 2017).

[3] *Id.*

[4] *FCC v. Fox Tel. Stations, Inc.,* 556 U.S. 502, 515 (2009).

[5] Exec. Order No. 13,771.

The views expressed in this paper are solely those of the author (or authors).
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existing rules will likely deter or delay the promulgation of new ones, generating additional uncertainty for states and the regulated community.

B. Executive Order 13,777

The second order states "[i]t is the policy of the United States to alleviate unnecessary regulatory burdens placed on the American people" and establishes a process to implement the Two for One order.[6] E.O. 13,777 directs each agency to establish a Regulatory Reform Task Force and designate a Regulatory Reform Officer.[7] The task force must evaluate existing regulations, identify burdensome rules, and make recommendations regarding their repeal, replacement or modification to make them less burdensome.[8]

EPA solicited public comment on burdensome regulations and conducted several outreach meetings and conference calls, including one nationwide conference call regarding air quality rules.[9] The Regulatory Reform Task Force was due to submit a report to Administrator Pruitt by May 25, 2017, "identifying regulations for repeal, replacement, or modification."[10] No report on Executive Order 13,777 has been posted in the regulatory docket or EPA's Regulatory Reform page, but EPA has published a related report on energy regulations pursuant to the third Executive Order.

C. Executive Order 13,783

The third Executive Order directs a review of "all existing regulations, orders, guidance documents, policies, and any other similar agency actions" that may burden domestic energy production and use, particularly oil, natural gas, coal, and nuclear energy resources.[11] EPA complied and published a report on potential regulatory reforms.[12] EPA's report recommends reforming the New Source Review (NSR) program and National Ambient Air Quality Standards (NAAQS), among other key initiatives.[13]

NSR reform would significantly affect the air quality permitting process. This initiative is consistent with a January 24, 2017, White House Memorandum on "Streamlining Permitting and Reducing Regulatory Burdens for Domestic Manufacturing."[14] The topic has generated public

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[6] Enforcing the Regulatory Reform Agenda, Exec. Order No. 13,777, 82 Fed. Reg. 12,285 (March 1, 2017).

[7] *Id.*

[8] Administrator Pruitt named Samantha Dravis as the EPA Regulatory Reform Officer. Memorandum from Adm'r Pruitt to EPA officials, Executive Order 13,777: Enforcing the Regulatory Reform Agenda (March 24, 2017), https://www.epa.gov/sites/production/files/2017-04/documents/regulatory_reform_agenda.pdf.

[9] Evaluation of Existing Regulations, 82 Fed. Reg. 17,793 (April 13, 2017); Transcript of EPA Office of Air and Radiation Stakeholder Conference Call (April 24, 2017), www.regulations.gov, Docket No. EPA-HQ-OA-2017-0190-13898.

[10] Exec. Order No. 13,777.

[11] Promoting Energy Independence and Economic Growth, Exec. Order No. 13,783, 82 Fed. Reg. 16,093 (Mar. 28, 2017).

[12] Final Report on Review of Agency Actions that Potentially Burden the Safe, Efficient Development of Domestic Energy Resources ("Exec. Order 13,783 Report") (Oct. 25, 2017), https://www.epa.gov/sites/production/files/2017-10/documents/eo-13783-final-report-10-25-2017.pdf.

[13] Exec. Order 13,783 Report at 2.

[14] 82 Fed. Reg. 8,667 (Jan. 24, 2017).

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interest[15] and the impacts of NSR reform or a broader review of agency actions that burden domestic energy are difficult to predict. Simplifying the permitting process would be welcome, but the effects in Colorado may be small if reform is limited to major source permitting. Colorado has never received an application for a major source NSR permit in the nonattainment area. The contours of NSR reform should become clearer after Administrator Pruitt convenes an NSR Reform Task Force.[16]

D. EPA Intends to Shift Authority to States

The roles of federal and state governments are defined by the Constitution and statute. Under the Constitution's Tenth Amendment, "[t]he powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.[17] Congress cannot "compel" the States to require or prohibit anything, and it cannot "commandeer" the States' legislative processes by ordering them to enact and enforce a federal program.[18] Congress can only encourage the States to regulate in a particular way, or hold out incentives to the States to influence their policy choices.[19] The major federal environmental statutes therefore rely on "cooperative federalism" to allocate authority and responsibility between the federal government and the States for regulating environmental issues.[20] Accordingly, the Clean Air Act specifies that states have the "primary responsibility for assuring air quality" within their borders by submitting implementation plans to achieve and maintain national ambient air quality standards.[21]

Administrator Pruitt has been clear that he believes the EPA has overstepped its proper role. In litigation regarding the Clean Power Plan, then-Oklahoma Attorney General Pruitt argued that EPA ran afoul of the Constitution and the Clean Air Act by unlawfully coercing states to regulate the transmission, distribution, and consumption of energy "beyond the fence lines" of power plants, instead of regulating the plants' direct emissions.[22] Early in his tenure, Administrator Pruitt advised that the Supreme Court's stay of the Clean Power Plan relieved states of any obligation to comply, and declared that "[t]he days of coercive federalism are over."[23] Regulatory reform advances Administrator Pruitt's goal of returning authority to the states.[24]

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[15] Nearly 20 percent (33 of 171) of the comments received by the Department of Commerce regarding the regulatory burdens on manufacturing addressed NSR reform. Impact of Federal Regulations on Domestic Manufacturing, www.regulations.gov, Docket ID DOC-2017-0001.

[16] Exec. Order 13,783 Report at 3.

[17] U.S. Const. amend. X.

[18] *New York v. United States*, 505 U.S. 144, 161 (U.S. 1992); *Hodel v. Virginia Surface Mining & Reclam. Ass'n,* 452 U.S. 264, 288 (1981).

[19] *New York*, 505 U.S. at 166.

[20] *See, e.g.*, 33 U.S.C. § 1342(b) (2016) (authorizing States that desire to administer their own water-permit programs to submit proposals to EPA); 42 U.S.C. § 7410(1) (2016) (requiring States that desire to administer their own air-permit programs to submit plans to EPA); *cf. Virginia v. Browner*, 80 F.3d 869 (4th Cir. 1996) (holding that 42 U.S.C. § 7410 does not violate Tenth Amendment because a State may choose to do nothing and place the regulatory burden on EPA).

[21] 42 U.S.C. § 7407(a) (2016).

[22] Brief in Support of Plaintiffs' Motion for a Prelim. Inj'n at 19, *Oklahoma ex rel. Pruitt v. McCarthy*, No. 15-369 (N.D. Okla. July 1, 2015).

[23] Letter from Adm'r Pruitt to Governor Hickenlooper (Mar. 30, 2017).

[24] "EPA's Administrator Scott Pruitt" (2017), https://www.epa.gov/aboutepa/epas-administrator.

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III. Overview of National Ambient Air Quality Standards, Nonattainment Area Designations, and State Implementation Plans

Ozone is one of six criteria pollutants regulated under the federal Clean Air Act.[25] EPA promulgates primary and secondary National Ambient Air Quality Standards (NAAQS) for these pollutants to protect public health and welfare. The primary standards "shall be ambient air quality standards the attainment and maintenance of which in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health."[26] The Administrator must consider only factors related to health and not economic factors when setting the primary standard.[27] EPA is required to review each NAAQS standard every five years,[28] although the review is often delayed.[29]

States determine strategies for attaining the NAAQS and prepare State Implementation Plans (SIPs). Once approved by EPA, SIPs are federally enforceable. The Clean Air Act establishes requirements and deadlines for several types of ozone SIPs in Sections 110, 172 and 182.

Section 110 requires every state to develop and submit an "infrastructure" SIP within three years after EPA promulgates or revises a NAAQS for any criteria pollutant, whether or not the state contains a nonattainment area.[30] Infrastructure SIPs contain emission limitations and control measures, air quality monitoring procedures, enforcement mechanisms, a minor source permitting program, and certain other elements.[31] Infrastructure SIPs also contain "good neighbor" provisions to protect downwind states from the interstate transport of pollution.[32]

States with nonattainment areas face additional requirements. EPA must designate geographic areas as attainment, nonattainment, or unclassifiable areas within two years after a NAAQS is established or revised.[33] The designation of a nonattainment area triggers important obligations and deadlines. These requirements are set forth in Title I, Part D, subpart 1 (nonattainment provisions in general), subpart 2 (nonattainment provisions for ozone), and subparts 3 through 5 (nonattainment provisions for other criteria pollutants). The ozone requirements of subpart 2 are more specific than, and in some cases explicitly supersede, the general requirements of Section 172.[34]

Section 172 requires states to submit a SIP revision within three years after an area is designated nonattainment for any criteria pollutant.[35] SIPs for nonattainment areas must contain an emissions inventory, among other SIP elements.[36] Section 182 requires additional SIP revisions, the

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[25] 42 U.S.C. § 7408, 7409 (2016).

[26] 42 U.S.C. § 7409(b)(1) (2016); *Whitman v. Am. Trucking Ass'ns,* 531 U.S. 457, 475-76 (2001).

[27] *Whitman* at 475-76.

[28] 42 U.S.C. § 7409(d)(1) (2016).

[29] EPA has revised the ozone NAAQS only four times since December 31, 1980, when the five-year review requirement took effect. https://www.epa.gov/ozone-pollution/table-historical-ozone-national-ambient-air-quality-standards-naaqs.

[30] 42 U.S.C. § 7410(a)(1) (2016).

[31] 42 U.S.C. § 7410(a) (2016).

[32] 42 U.S.C. §§ 7410(a)(2)(D)(i) and (ii) (2016).

[33] 42 U.S.C. § 7407(d)(1)(b)(i) (2016).

[34] *South Coast Air Quality Mgmt. Dist. v. EPA ("South Coast")*, 472 F.3d 882, 899 (D.C. Cir. 2006).

[35] 42 U.S.C. § 7502(b) (2016).

[36] 42 U.S.C. § 7502(c) (2016).

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nature of which depend on the severity of the ozone problem.[37] When EPA designates an ozone nonattainment area, it classifies the area as Marginal, Moderate, Serious, Severe or Extreme.[38] Depending on the classification, an ozone nonattainment area SIP revision may include an emissions inventory, a demonstration based on photochemical modeling that the area will attain the standard by the attainment deadline, reasonable further progress requirements (minimum emission reductions), reasonably available control technology (RACT) requirements, or other SIP elements.

Ozone nonattainment areas that do not attain the NAAQS by their attainment deadline may be reclassified and required to submit a more stringent SIP revision.[39] Reclassification is often called a "bump up." Conversely, if a nonattainment area comes into attainment, the state may request redesignation as an attainment area and submit a revised SIP for maintaining the NAAQS.[40] Such "attainment/maintenance" areas remain subject to a SIP for two 10-year periods.[41]

IV. History of Colorado's Ozone Nonattainment Area

Colorado has striven to reduce ozone concentrations in Denver and the North Front Range over the last four decades. In March 1978, the Denver Metropolitan Area was designated as a nonattainment area under the 1978 one-hour standard of 0.12 parts per million (ppm) or 120 parts per billion (ppb).[42] The region attained this standard in 1988, was classified as a transitional ozone nonattainment area in 1991, and redesignated as an attainment area in 2001 when EPA approved Colorado's Ozone Maintenance Plan.[43]

In 1997, EPA adopted an eight-hour ozone standard of 0.08 ppm or 80 ppb.[44] Implementation of the 1997 NAAQS was delayed by litigation and Congressional action.[45] EPA was sued for failing to make timely designations under the 1997 NAAQS and entered a consent decree requiring it to designate areas by April 15, 2004.[46]

In November and December 2002, Colorado and eleven other states entered Early Action Compacts with EPA to defer the designation of 14 nonattainment areas for purposes of the 1997 ozone NAAQS, subject to the submittal of SIP revisions requiring early action to reduce ozone and certain other requirements.[47] EPA extended Colorado's attainment deadline several times pursuant to the EAC program, until the Denver area was designated nonattainment effective November 20,

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[37] 42 U.S.C. §§ 7511a(a) - (e) (2016).

[38] 42 U.S.C. § 7511(a)(1) (2016).

[39] 42 U.S.C. § 7511(b)(2) (2016).

[40] 42 U.S.C. §§ 7407(d), 7505a (2016).

[41] 42 U.S.C. §§ 7505a(a) and (b) (2016).

[42] The federal ozone standards have been expressed as the average ambient concentration over a period of time, either one hour or eight hours.

[43] Approval of Colorado's Air Quality Implementation Plans, 66 Fed. Reg. 47,086 (Sept. 11, 2001); Moderate Area Ozone SIP for the Denver Metro and North Front Range Nonattainment Area § 1.5.1 (Nov. 17, 2016), www.raqc.org.

[44] 1997 Ozone NAAQS, 62 Fed. Reg. 38,856 (July 18, 1997).

[45] *See Whitman v. Am. Trucking Ass'ns*, 531 U.S. 457 (2001).

[46] *See* EPA, Early Action Compact Program for Ground-Level Ozone (EAC Report) at 12, EPA-456/R-09-001 (June 2009).

[47] EAC Report at 14-16. In addition, fifteen attainment areas participated in the EAC program in order to voluntarily adopt measures to remain in attainment.

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2007, based on air quality data showing a violation of the standard.[48] The Denver area was the only nonattainment-deferred area that failed to complete the EAC program due to an air quality violation. A number of states and environmental organizations challenged EPA's use of Early Action Compacts,[49] and EPA now acknowledges that it lacked statutory authority for the EAC Program.[50]

In July 2009, Colorado submitted an attainment demonstration SIP for the 1997 NAAQS. EPA partially approved it in 2011.[51] Colorado's three-year average ozone concentrations have not violated the 80 ppb standard since 2009In 2008, EPA lowered the eight-hour ozone NAAQS to 75 ppb.[52] The Denver Metro/North Front Range (DMNFR) area was designated as a marginal nonattainment area under the 2008 NAAQS with an effective date of July 20, 2012.[53] The DMNFR contains all of Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas and Jefferson Counties, and most of Larimer and Weld Counties.[54] The region failed to meet its July 20, 2015 attainment deadline[55] and was reclassified as a moderate nonattainment area.[56] Colorado responded to the moderate area reclassification by adopting and submitting to EPA a SIP revision with additional ozone control measures and a demonstration (using photochemical modeling) that the DMNFR would attain the 75 ppb NAAQS in 2017. EPA is expected to act on the SIP revision in the summer of 2018.

V. Ozone Regulation in the Denver Metro/North Front Range Nonattainment Area

The future status of the DMNFR, and the regulatory requirements applicable to it, are highly uncertain. Some of the uncertainty involves whether future ozone concentrations will attain the 2008 NAAQS of 75 ppb,[57] but that question is overshadowed by the uncertainty arising from regulatory reform. The actions of EPA, Congress, and the courts might alter the 2015 NAAQS, delay its implementation, revoke or retain the 2008 NAAQS, affect whether the DMNFR is reclassified as a serious area under the 2008 NAAQS, transform a recent Colorado SIP revision into a state-only regulation, revise the provisions for ozone transport and background, and delay or scale back emission standards that would reduce nationwide ozone levels. Section Five illustrates the impacts of regulatory reform by describing Colorado's ozone requirements under existing law and how they might change under some of the proposals.

A. Implementation of the 2015 NAAQS Under Existing Law

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[48] *Id.* at 17-18.

[49] *Am. Lung Ass'n. v. EPA,* No. 04-1275, 2008 WL 3198886 (D.C. Cir. July 29, 2008); *Rocky Mountain Clean Air Action v. EPA* No. 07-1012, 2012 WL 556141 (D.C. Cir. Jan. 18, 2012) (challenging the Denver, Colorado deferral).

[50] EPA, Report to Congress on Administrative Options to Enable States to Enter into Cooperative Agreements to Provide Regulatory Relief for Implementing Ozone Standards at 6 (Aug. 14, 2017).

[51] Approval of Colorado SIP, 76 Fed. Reg. 47,443 (Aug. 5, 2011).

[52] 2008 Ozone NAAQS, 73 Fed. Reg. 16436 (March 12, 2008).

[53] 2008 Ozone NAAQS Designations, 77 Fed. Reg. 30,088 (May 21, 2012).

[54] 40 C.F.R. § 81.306 (2017).

[55] EPA initially set an attainment deadline of December 31, 2015, but this was changed to July 20, 2015 after litigation. 2008 Ozone NAAQS Implementation Rule, 77 Fed. Reg. 30,160 (May 21, 2012); *Natural Resources Defense Council v. EPA,* 777 F.3d 456 (D.C. Cir. 2014).

[56] Reclassification of Several Areas for the 2008 Ozone NAAQS, 81 Fed. Reg. 26,697, 26,699 (May 4, 2016).

[57] The area must make significant progress before it attains the 2015 NAAQS of 70 ppb.

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The more stringent 70 ppb ozone standard was finalized in 2015.[58] States will begin to implement the 2015 NAAQS after EPA designates nonattainment areas.[59] EPA designated many counties as attainment/unclassifiable in November 2017,[60] and on December 20, 2017 EPA sent the states so-called "120 day letters" summarizing EPA's intentions regarding the remaining counties.[61] Consistent with Colorado's recommendation, EPA intends to designate a 2015 NAAQS nonattainment area with the same boundaries as the existing DMNFR and designate all remaining areas of Colorado as attainment/unclassifiable.[62] Based on the date of the 120 day letter, designations will likely be finalized in approximately April 2018 and become effective approximately May 2018.

The Office of Management and Budget's Fall 2017 Regulatory Plan and Unified Agenda of Federal Regulatory and Deregulatory Actions lists both the 2015 Ozone NAAQS SIP Requirements Rule and the 2015 Ozone NAAQS Classifications Approach as "Long-Term Actions," meaning EPA "does not expect to have a regulatory action within the 12 months after publication" of the agenda.[63] These rules provide important details regarding Colorado's deadlines and specific requirements for implementing the NAAQS. Delays will adversely impact Colorado's ability to prepare SIPs.

Colorado believes the DMNFR will likely be classified as marginal. Consistent with past practice, EPA proposed to classify areas that have a design value[64] within 15% of the 70 ppb standard as marginal,[65] and the DMNFR's preliminary design value of 80 ppb is within this range.[66]

Assuming the DMNFR is classified as marginal, Colorado's existing SIP would likely fulfill many of the requirements but a new baseline emissions inventory would be needed.[67] Colorado would also determine whether any changes are warranted to its RACT requirements, vehicle inspection and maintenance program, nonattainment area NSR permit program, emissions statement rule and general offset provisions.[68] The DMNFR must then attain within three years after the effective date of designation as a marginal area, or face reclassification as a moderate area, which would trigger additional requirements.

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[58] 2015 Ozone NAAQS, 80 Fed. Reg. 65,292, 65,292 (Oct. 26, 2015).

[59] States must also submit an infrastructure SIP within three years of a NAAQS revision, regardless of whether EPA has designated nonattainment areas. 42 U.S.C. § 7410(a)(1) (2016).

[60] Air Quality Designations for the 2015 Ozone NAAQS, 82 Fed. Reg. 54,232 (Nov. 16, 2017).

[61] EPA must provide a state 120 days' notice if EPA intends to make a nonattainment area designation that differs from the state's recommendation. 42 U.S.C. § 7407(d)(1)(B)(ii) (2016).

[62] *See, e.g.,* Memo from Douglas H. Benevento, Regional Administrator, EPA Region 8 to Governor Hickenlooper (Dec. 20, 2017).

[63] Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area Classifications Approach, RIN 2060-AT41, https://www.reginfo.gov/public/do/eAgendaHistory?operation=OPERATION_GET_PUBLICATION&showStage=longterm&currentPubId=201710.

[64] For purposes of the 2008 and 2015 ozone NAAQS, the design value is the three-year average of the fourth maximum daily eight-hour ozone concentration. *See* 2015 Ozone NAAQS, 80 Fed. Reg. 65,292, 65,292 (Oct. 26, 2015).

[65] 2015 Ozone NAAQS SIP Requirements Rule (Proposed), 81 Fed. Reg. 81,276, 81,284, Table 1 (Nov. 17, 2016).

[66] Colorado Dept. of Public Health and Envt. (CDPHE) Ozone Summary Table, https://www.colorado.gov/airquality/html_resources/ozone_summary_table.pdf.

[67] 42 U.S.C. § 7511a(a)(1) (2016).

[68] 42 U.S.C. §§ 7511a(a)(2) – (a)(4) (2016).

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The actions of government at all levels, the regulated community, environmental advocates, and the public have improved ozone concentrations in the DMNFR over time, but attaining the 70 ppb standard will take sustained effort. Growth in Colorado's population, economy, and the number of vehicle miles travelled magnify the challenge. Colorado utilizes a comprehensive suite of ozone control measures[69] and will explore additional measures to attain the NAAQS and protect public health.

B. Implementation of the 2015 NAAQS After Regulatory Reform

The 2015 NAAQS might change through litigation, administrative action, or legislation. These potential actions could have wide-ranging impacts on implementation of the 2015 NAAQS.

The 2015 NAAQS was challenged in *Murray Energy Corporation v. EPA*, No. 15-1385 (D.C. Cir.). While the outcome of the case is impossible to predict, the court could remand or vacate the rule, potentially leading to the promulgation of a different standard. The case was continued indefinitely[70] after EPA filed a motion representing that it "intends to closely review the 2015 Rule" and arguing it has "inherent authority to reconsider past decisions and to revise, replace or repeal" the 2015 NAAQS.[71] Subsequent events suggest EPA might not pursue an administrative reconsideration of the standard. EPA is proceeding to designate 2015 NAAQS nonattainment areas, and its Statement of Priorities accompanying its regulatory agenda is silent regarding this point.[72] Nonetheless, the potential revision of the 2015 NAAQS warrants consideration.

It is unclear whether EPA may rely on its inherent authority to reconsider past decisions to revise a NAAQS. In *New Jersey v. EPA,* the court held that "[a]n agency can normally change its position and reverse a decision," but "when Congress has provided a mechanism capable of rectifying mistaken actions . . . it is not reasonable to infer authority to reconsider agency action."[73] Similarly, *Alabama Environmental Council v. EPA* found that EPA lacked the inherent authority to disapprove a SIP revision it had previously approved, where "Congress has provided specific statutory procedures" for EPA to correct SIP approval errors.[74] Here, Section 109(d) sets forth a process for EPA to review and revise ambient air quality standards.[75] As part of this process, a Scientific Review Committee must review existing standards and make recommendations regarding any new standards or revisions.[76] EPA's motion to continue *Murray Energy* suggests the agency might rely on its inherent authority instead of Section 109(d) to administratively revise the 70 ppb standard. If so, EPA would likely face a legal challenge.

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[69] Colorado's ozone control measures include, but are not limited to, federal mobile source standards and regulations, a motor vehicle inspection and maintenance program, gasoline (Reid vapor pressure) standards, Stage I vapor recovery, oil and gas regulations, and regional haze provisions. Moderate Area Ozone SIP for the DMNFR Nonattainment Area § 4.3 (Nov. 17, 2016).

[70] Order, *Murray Energy v. EPA*, No. 15-1385 (D.C. Cir. Apr. 11, 2017), Doc. No. 1670626.

[71] Respondent's Mtn. to Continue, *Murray Energy v. EPA*, No. 15-1385 (D.C. Cir. Apr. 7, 2017), Doc. No. 1670218.

[72] Fall 2017 Agency Statements of Regulatory Priorities, https://www.reginfo.gov/public/jsp/eAgenda/StaticContent/201710/Statement_2000.html.

[73] *New Jersey v. EPA,* 517 F.3d at 582, 583 (D.C. Cir. 2008), *quoting Am. Methyl Corp. v. EPA,* 749 F.2d 826, 835 (D.C. Cir. 1984).

[74] *Alabama Envtl. Council v. EPA,* 711 F.3d 1277, 1290 (11th Cir. 2013). In *Alabama Envtl. Council,* the SIP revision was originally approved by the Bush EPA and unsuccessfully disapproved by the Obama EPA.

[75] 42 U.S.C. § 7409(d)(1) (2016).

[76] 42 U.S.C. § 7409(d)(2) (2016).

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The effect of an administrative revision of the 70 ppb standard outside of Section 109(d) is also uncertain. Anti-backsliding requirements apply when EPA "relaxes" a primary NAAQS,[77] but it is not clear whether an administrative NAAQS revision constitutes a "relaxation" or a correction that renders the 70 ppb NAAQS *void ab initio*. If anti-backsliding applies, EPA must promulgate requirements applicable to all areas that have not attained the standard as of the date of relaxation. The requirements cannot be less stringent than the controls applicable to areas designated nonattainment before the relaxation,[78] but timing issues are likely to cause complications. Depending on the area's classification, SIP revisions are due between two and four years after the nonattainment area designations take effect.[79] If the NAAQS is relaxed before the SIPs revisions are submitted and approved, there will be questions regarding which controls are "applicable" and must be retained as anti-backsliding measures.

Legislation has been introduced that would impact the 2015 ozone NAAQS and future standards for all criteria pollutants. On July 18 2017, the House of Representatives passed H.R. 806, the Ozone Standards Implementation Act of 2017, to reform the NAAQS review process.[80] The bill extends the deadline for designating 2015 NAAQS nonattainment areas by eight years. Many SIP submittal deadlines are tied to the date of designation and would likewise be extended. The bill changes the frequency of all NAAQS revisions from five years to ten years and precludes EPA from revising the ozone NAAQS until October 26, 2025. The bill allows EPA to consider technological feasibility as a secondary consideration when establishing or revising a NAAQS. EPA must publish implementing regulations and guidance simultaneously with NAAQS revisions, and preconstruction permitting requirements do not apply until the issuance of such regulations and guidance. The bill broadens the definition of exceptional events such that "stagnation of air masses or meteorological inversions" may qualify as exceptional events if they are not "ordinarily occurring." EPA must report on international emissions and their impact on NAAQS compliance. In addition, the bill exempts states from sanctions or fees in certain cases where severe or extreme ozone nonattainment areas, and serious particulate matter nonattainment areas, fail to attain a NAAQS for reasons beyond the state's control.[81] The Senate has not yet acted on the bill.

If nonattainment area designations take effect in approximately May 2018, as appears likely, and H.R. 806 has not been enacted by that time, its provision extending the deadline for designations would appear to be irrelevant. Nonetheless, Congress could pass a different provision that delays implementation of the 2015 ozone NAAQS. Doing so would increase flexibility by allowing states additional time to reduce emissions outside of the SIP framework. This would also reduce the potential for overlap between the 2008 and 2015 NAAQS while deferring any revocation of the 2008 NAAQS.[82]

Other pending legislation might change the way the 2015 NAAQS is implemented by requiring EPA to clarify and accelerate the process for demonstrating exceptional events. An

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[77] 42 U.S.C. § 7502(e) (2016).

[78] *Id.*

[79] 42 U.S.C. § 7511a (2016).

[80] H.R.806, 115th Cong., 1st Sess. (Feb. 1, 2017). A companion bill has been introduced in the Senate. S.B.263, 115th Cong., 1st Sess. (Feb. 1, 2017). A separate bill, S.B.452, contains similar provisions to delay the implementation of the 2015 ozone NAAQS and change the NAAQS review cycle from five to ten years. S.B. 452, 115th Cong., 1st Sess. (Feb. 21, 2017).

[81] H.R.806

[82] Section V.D.1, *infra*.

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exceptional event is a natural event, or a human-caused event that is unlikely to recur at a particular location, that is not reasonably controllable or preventable and affects air quality.[83] "When 'exceptional' events influence monitoring data and cause exceedances or violations of the NAAQS, air agencies can request the exclusion of event-influenced data, and the EPA can agree to exclude these data, from the data set used for certain regulatory decisions."[84]

On February 27, 2017, Senator Flake (R-Arizona) and others introduced S.B. 454, the Commonsense Legislative Exceptional Events Reforms Act of 2017.[85] The bill requires EPA to state with specificity the criteria for approval of an exceptional events demonstration, reducing the Administrator's discretion. Demonstrations will be deemed approved 90 days after receipt, or if EPA makes a one-time request for additional information, within 90 days after EPA receives that information. EPA shall accord substantial deference to state exceptional event demonstrations.[86] Enactment of S.B. 454 could provide greater certainty and reduce delays regarding exceptional event demonstrations.

C. Implementation of the 2008 NAAQS Under Existing Law

While Colorado prepares to implement the 2015 NAAQS, it must continue to implement the 2008 standard of 75 ppb. As described above, ozone concentrations in the DMNFR have improved over time but the region has not yet attained the 2008 NAAQS.

1. Anticipated and Pending SIP revisions

Colorado revised its SIP in November 2016 after being reclassified as a moderate ozone nonattainment area under the 2008 NAAQS and is awaiting EPA action on its SIP submittal.[87] States with moderate nonattainment areas must submit SIP revisions that include provisions requiring reasonably available control technology (RACT) for all existing facilities that are major sources of VOC or NOx.[88] Colorado's SIP includes RACT requirements for a number of sources. The state is currently developing major source RACT standards for certain additional categories of existing major sources. The Colorado Department of Public Health and Environment anticipates hearings before the Air Quality Control Commission in July and November 2018.

Moderate area SIPs must also include provisions requiring RACT for all VOC source categories covered by a Control Techniques Guideline (CTG) issued before November 15, 1990, or between that date and the date of attainment.[89] The November 2016 SIP revision added RACT requirements for two CTG source categories.[90] Colorado further revised its RACT SIP in November 2017 to add certain oil and gas requirements in response to EPA's Control Techniques Guideline for

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[83] 42 U.S.C. § 7619(b)(1) (2016).

[84] Treatment of Data Influenced by Exceptional Events, 81 Fed. Reg. 68,216, 68,216 (Oct. 3, 2016).

[85] S.B.454, 115th Cong., 1st. Sess. (Feb. 27, 2017).

[86] *Id.*

[87] Reclassification of Several Areas for the 2008 Ozone NAAQS, 81 Fed. Reg. 26,697, 26,699 (May 4, 2016).

[88] 42 U.S.C. § 7511a(b)(2)(C) (2016). While Section 182(b) requires SIP revisions for major sources of VOC, Section 182(f) extends these requirements to major sources of NOx.

[89] 42 U.S.C. §§ 7511a(b)(2)(A) and (B) (2016).

[90] Colorado Air Quality Control Commission (AQCC) Reg. No. 7 § X.E. (industrial cleaning solvent usage CTG) and § XIII.B (offset lithographic printing and letterpress printing CTG).

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the Oil and Natural Gas Industry, EPA-453/B-16-001 (October 2016).[91] The Colorado General Assembly will have the opportunity to review the November 2017 SIP revision during its 2018 legislative session (scheduled for January to May 2018) before submittal to the EPA.[92]

2. The DMNFR May Be Redesignated as Attainment (Maintenance) if Air Quality Monitoring Data Is Favorable

The DMNFR must attain the 75 ppb standard by July 20, 2018, or qualify for an extension of time, or it may be reclassified as a serious nonattainment area.[93] The area will not attain by July 20, 2018 because its ozone design value for the previous three calendar years (2015-2017) of 80 ppb exceeds the NAAQS.[94] The area will likely receive a one-year extension of time based on a "clean data" year in 2017.[95] In this context, a clean data year means that the fourth highest daily maximum eight-hour average concentration for each monitor in the nonattainment area does not exceed 75 ppb.[96] The area will likely qualify for a clean data year extension after the exclusion of two data points pursuant to the Exceptional Events Rule.[97]

If EPA approves the exceptional event demonstration and Colorado fulfills all other SIP requirements, the DMNFR's attainment deadline may be extended to July 20, 2019. If the area's ozone concentrations remain below thresholds in 2018 and 2019 and all other requirements are met, the DMNFR would qualify for a second clean data extension after 2018 and attain the NAAQS based on a 2017-2019 design value less than 76 ppb.[98] In that case, the DMNFR may be redesignated as an attainment (maintenance) area.[99]

Upon redesignation as an attainment (maintenance) area, Colorado must submit two consecutive 10-year plans providing for maintenance of the 75 ppb standard for a combined 20 years.[100] The maintenance plans must require the continued implementation of existing SIP provisions, must include additional measures, if any, needed to ensure maintenance, and must contain contingency provisions to promptly correct any future NAAQS violations.[101]

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[91] AQCC Reg. No. 7 §§ XII, XVIII.

[92] Colo. Rev. Stat. § 25-7-133(2).

[93] 81 Fed. Reg. at 26,698.

[94] CDPHE Ozone Summary Table, https://www.colorado.gov/airquality/html_resources/ozone_summary_table.pdf.

[95] 42 U.S.C. § 181(a)(5) (2016); 40 C.F.R. § 51.1107 (2017).

[96] 81 Fed. Reg. 26,698; 40 C.F.R. § 51.1107 (2017). To qualify for an extension, the area must also comply with all commitments and requirements in the applicable SIP. 42 U.S.C. § 7511(a)(5)(A). Decimal values are truncated, so a design value of 75.9 ppb does not exceed 75 ppb.

[97] Treatment of Data Influenced by Exceptional Events, 81 Fed. Reg. 68,216 (Oct. 3, 2016). Ozone concentrations recorded at the National Renewable Energy Laboratory monitoring site on September 2 and September 4, 2017, appear to have been influenced by wildfire smoke.

[98] The DMNFR could in theory attain the 2008 ozone NAAQS after 2018 if its design value for 2016-2018 is less than 76 ppb, but this is extremely unlikely. Given the fourth maximum daily eight-hour values recorded at the NREL monitor in 2016 and 2017, the site would require a fourth maximum value of 67 ppb or less in 2018 to lower the three-year average to 75 ppb.

[99] Additional redesignation requirements are found at 42 U.S.C. § 7407(3)(E) (2016).

[100] 42 U.S.C. § 7505a(a – b) (2016).

[101] *Id.*

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3. The DMNFR May Be Reclassified as a Serious Nonattainment Area if it Fails to Timely Attain

The DMNFR may be reclassified to a serious nonattainment area if it fails to timely attain the 2008 NAAQS or does not qualify for a clean data year extension after 2018. Colorado would have to submit a SIP revision satisfying the requirements of Section 182(c), which are significant. The SIP requirements with the greatest impact on Colorado involve major source permits, emission offsets, and reasonable further progress.[102]

a) Operating Permits

Title V of the Clean Air Act forbids the operation of major sources of air pollutants without an operating permit.[103] In most cases, the Title V operating permit program defines a major stationary source as one "which directly emits, or has the potential to emit, one hundred tons per year or more of any air pollutant."[104] The major source threshold is reduced to 50 tons per year (tpy) in serious ozone nonattainment areas.[105] Reclassifying the DMNFR as a serious nonattainment area would transform existing facilities inside the DMNFR with the potential to emit (PTE) VOC or NOx in amounts between 50-100 tpy into major sources. These existing facilities would need to apply for Title V operating permits.[106] The Colorado Department of Public Health and Environment (CDPHE) has identified approximately 52 existing facilities in the DMNFR that are major sources of VOC or NOx under the 100 tpy threshold.[107] If the major source threshold decreased to 50 tpy, approximately 400-500 additional existing sources could be classified as major and may need to apply for operating permits.[108]

CDPHE is reviewing its permitting program to determine how it would accommodate a large expansion in the universe of major sources. Some facilities may avoid major source status if they become "synthetic minor" sources by taking enforceable emission limits to reduce their PTE below 50 tpy. More than 90% of the DMNFR sources with PTE between 50-100 tpy are oil and gas facilities, and CDPHE is assessing the possibility of making a synthetic minor general permit available to these sources.

Sources that become subject to Title V permitting requirements must submit a permit application within 12 months of the applicability date,[109] or in this case 12 months after the effective date of reclassification. Sources that submit a timely and complete application may continue to operate until CDPHE makes a final determination on the permit application.[110]

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[102] The remaining provisions of Section 182(c) are discussed in the Regional Air Quality Council's "Briefing Paper on Ozone Planning: Options Moving Forward with the 2008 Standard" (Sept. 1, 2017), https://raqc.egnyte.com/dl/kXNLAPKdNk/O3PlanningOptionsMovingForward_Final090117.pdf.

[103] 42 U.S.C. § 7661a(a) (2016).

[104] 42 U.S.C. § 7661(2)(B) (2016); 42 U.S.C. § 7602(j) (2016).

[105] 42 U.S.C. § 7661(2)(B) (2016); 42 U.S.C. § 7511a(c) (2016).

[106] AQCC Reg. No. 3, Part C § II.A.1.d; 40 C.F.R. § 70.2 (2017) (definition of major source).

[107] Briefing Paper on Ozone Planning at 11.

[108] *Id.*

[109] 42 U.S.C. § 7661b(c) (2016).

[110] AQCC Reg. No. 3, Part C § II.B; 42 U.S.C. § 7661b(d) (2016).

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Title V permits compile existing emission limits in a single document, making it easier for inspectors and the public to know what requirements are applicable to the source. Title V permits impose certain monitoring and reporting requirements, facilitating enforcement and transparency.[111] Some Title V sources are subject to the Compliance Assurance Monitoring rule.[112] These aspects of the operating permit program could lead to improved compliance and public awareness.

Extending Title V permitting requirements to existing sources with PTE between 50-100 tpy does not provide an opportunity for Colorado to mandate new emission reductions. Operating permits restate Clean Air Act requirements that are applicable to the source.[113] Applicants for operating permits have no obligation to establish new emission limits through the permitting process. This constrains the air quality benefits that could result from issuing Title V operating permits to existing sources.

b) Nonattainment New Source Review

Nonattainment New Source Review (NNSR) is a permitting process applicable in nonattainment areas.[114] NNSR "requires major facilities to include technology consistent with the lowest achievable emissions rate ('LAER') and to offset any increased emissions with greater reductions elsewhere."[115] As with Title V operating permits, the NNSR major source threshold decreases from 100 tpy to 50 tpy of VOC or NOx in serious ozone nonattainment areas.[116] In addition, the requirements are more stringent in areas with more restrictive ozone classifications.[117]

If the DMNFR is reclassified as a serious ozone nonattainment area, new major sources and major modifications to existing sources inside the DMNFR with the potential to emit more than 50 tpy of VOCs or NOx would need to apply for and receive an NNSR permit before commencing construction.[118] New major sources and major modifications to existing sources with the potential to emit 100 tpy or more of VOC or NOx must achieve LAER.[119] The requirements are relaxed somewhat under a "special rule" for major modifications to existing sources with a PTE between 50-100 tpy. Such facilities apply the best available control technology (BACT), which accounts for the economic cost of emission controls[120] and is generally less stringent than LAER.[121]

Major sources subject to NNSR permitting requirements must offset any emissions increase with a larger emissions decrease.[122] The minimum offset ratio for ozone nonattainment areas is progressively more stringent for areas with higher classifications.[123] Upon reclassification as a serious nonattainment area, facilities in the DMNFR that increase VOC or NOx emissions in an amount

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[111] 42 U.S.C. §§ 7661a(b)(2), 7661b(b)(2) (annual compliance certifications), and 7661c(a) (semiannual reports) (2016).

[112] 40 C.F.R. Part 64.

[113] *See* AQCC Reg. No. 3, Part C § III.C.3 (permit application elements).

[114] *New York v. EPA,* 443 F.3d 880, 883 (D.C. Cir. 2006).

[115] *South Coast Air Quality Mgmt. Dist. v. EPA*, 472 F.3d at 900, *citing* 42 U.S.C. § 7503.

[116] 42 U.S.C. § 7511a(c) (2016).

[117] *New York v. EPA,* 443 F.3d at 883.

[118] AQCC Reg. No. 3, Part D, § II.A.25.b; 40 C.F.R. §§ 51.165(a)(1)(iv)(A)(1)(i) and (A)(2)(iv) (2017).

[119] AQCC Reg. No. 3, Part D § V.A.1; 42 U.S.C. § 7503(a)(2) (2016).

[120] 42 U.S.C. § 7479(3) (2016).

[121] 42 U.S.C. § 7511a(c)(7) (2016).

[122] 42 U.S.C. §§ 7503(a)(1)(A), 7503(c) (2016).

[123] *Cf.* 42 U.S.C. §§ 7511a(a)(4), (b)(5), (c)(10), (d)(2), and (e)(1) (2016).

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sufficient to trigger NNSR must reduce their own emissions by 1.2 times that amount or obtain offsets elsewhere.[124] Emission offsets generally must be for the same pollutant and must be obtained from the same nonattainment area where the source is located, but states may allow offsets from another area with an equal or higher classification if emissions from the second area contribute to a NAAQS violation in the area where the source is located.[125]

Colorado's SIP contains emission reduction credit (ERC) provisions for emission offset trading and use.[126] Anticipating heightened interest in emission offsets, Colorado proposed guidance regarding the process for creating, trading and using ERCs.[127] Colorado received public comments on this document and is preparing to respond.

c) Reasonable Further Progress

Areas classified moderate and above must make reasonable further progress (RFP) toward attainment. Section 182(b) requires moderate ozone nonattainment area SIPs to provide for VOC reductions of at least 15% within six years of a baseline year (typically the year of the most recent triennial emission inventory).[128] The DMNFR demonstrated RFP as a moderate area by reducing total anthropogenic VOC emissions 33% between 2011 and 2017.[129]

Serious nonattainment areas must reduce emissions an additional 3% per year on average.[130] The DMNFR previously reduced its VOC emissions more than the 15% required for moderate areas. The excess emission reductions are creditable toward the requirement for serious areas to achieve an average 3% reduction per year.[131] NOx reductions would also be creditable toward the serious area RFP requirement.[132] Accordingly, the DMNFR is very likely to satisfy the RFP requirement for serious areas.[133]

D. Implementation of the 2008 NAAQS After Regulatory Reform

The federal regulatory reform agenda is unfolding and its full contours are not fully known to states or the public. EPA has published some proposals while other potential changes have merely been identified in the Office of Management and Budget's regulatory agenda.[134] The lack of information regarding the scope of potential reforms heightens the uncertainty facing Colorado and other states.

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[124] *South Coast*, 472 F.3d at 901; 42 U.S.C. § 7511a(c)(10) (2016).

[125] 42 U.S.C. § 7503(c) (2016).

[126] AQCC Reg. No. 3, Part A § V.

[127] CDPHE Air Pollution Control Division, Emission Reduction Credits Instructions and Support Manual (July 30, 2017), https://www.colorado.gov/pacific/sites/default/files/AP_ERC_Instructions-and-Support-Manual-June-2017.pdf.

[128] 42 U.S.C. § 7511a(b)(1)(A)(i) (2016); *see* 2008 NAAQS SIP Requirements Rule, 80 Fed. Reg. 12,264, 12,271 (Mar. 6, 2015).

[129] Moderate Area Ozone SIP for the DMNFR at 4-11 and Table 14 (Nov. 17, 2016), http://raqc.org/documents/sip/.

[130] 42 U.S.C. § 7511a(c)(2)(B) (2016).

[131] *Id.*

[132] 42 U.S.C. § 7511a(c)(3) (2016).

[133] Regional Air Quality Council, Briefing Paper on Ozone Planning: Options Moving Forward with the 2008 Standard at 14 (Sept. 1, 2017).

[134] Fall 2017 Unified Agenda and Regulatory Plan, https://www.reginfo.gov/public/do/eAgendaMain.

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1. Potential Revocation of the 2008 National Ambient Air Quality Standards

The 2008 NAAQS might be revoked after the 2015 NAAQS is implemented, but revocation is not automatic and the potential timing is unclear. The state must implement both standards until the area is designated attainment (maintenance) under the 2008 NAAQS or it is revoked.[135] EPA cannot reclassify or redesignate areas under a revoked standard.[136] Areas designated as nonattainment under the prior standard at the time it is revoked remain subject to previously approved SIP provisions and applicable requirements for such areas.[137] EPA establishes specific anti-backsliding provisions in the NAAQS implementation rules.[138]

EPA revoked the 1997 NAAQS when the implementation rule for the 2008 NAAQS took effect.[139] EPA concluded that revocation "ensures that only one ozone NAAQS—the more protective 2008 ozone NAAQS—directly applies, rather than having two standards apply concurrently."[140] EPA further explained that "the permanent retention of two standards, differing only in the ozone concentrations they allow, creates unnecessary complexity and is not necessary to provide for attainment of the more stringent NAAQS."[141]

EPA proposed to revoke the 2008 NAAQS and sought comment on two alternative timelines.[142] The first, dubbed Option 1, would revoke the 2008 ozone NAAQS in all nonattainment areas at essentially the same time, one year after the effective date of designations for the 2015 NAAQS nonattainment areas.[143] The process and rationale for Option 1 are consistent with EPA's revocation of the 1997 ozone NAAQS.[144] Colorado submitted comments in support of Option 1.[145]

Option 2 would revoke the 2008 ozone NAAQS individually for each 2008 NAAQS nonattainment area, upon the area's redesignation as attainment (maintenance) but no earlier than one year after the effective date of designation for the 2015 ozone NAAQS.[146] EPA has followed this approach when transitioning between NAAQS for SO_2 and lead.[147] Under Option 2, areas that miss deadlines to attain the 2008 NAAQS would continue to be reclassified until the area is redesignated as attainment (maintenance).[148]

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[135] 2008 Ozone NAAQS Implementation Rule, 80 Fed. Reg. 12,264, 12,297 n.78 (revoking the 1997 NAAQS).

[136] 80 Fed. Reg. at 12,297. Areas may be redesignated or reclassified up to the effective date of revocation of the old standard. *Id.* at 12,297 n.77 (noting that two 1-hour nonattainment areas were redesignated to attainment the day before and the day of revocation of the 1-hour NAAQS).

[137] *South Coast Air Quality Mgmt. Dist.*, 472 F.3d at 900; 42 U.S.C. § 7502(e) (2016).

[138] 80 Fed. Reg. at 12,296; Proposed 2015 Ozone NAAQS Implementation Rule, 81 Fed. Reg. 81,276, 81,288 (Nov. 17, 2016).

[139] 80 Fed. Reg. at 12,296.

[140] 80 Fed. Reg. at 12,297.

[141] *Id.*

[142] 81 Fed. Reg. at 81,286.

[143] If the 2015 NAAQS nonattainment area designations do not take effect on the same date for all areas, Option 1 could result in different revocation dates for different 2008 NAAQS nonattainment areas.

[144] *Id.*

[145] State of Colorado Comments on Implementation of the 2015 NAAQS for Ozone (Feb. 13, 2017), www.regulations.gov, Docket ID No. EPA-HQ-OAR-2016-0202-0082.

[146] 81 Fed. Reg. at 81,286-87.

[147] *Id.* at 81,287, *citing* 73 Fed. Reg. 67,043 (Nov. 12, 2008) and 75 Fed. Reg. 35,581 (June 22, 2010).

[148] 81 Fed. Reg. 81,287.

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Litigation pending in the D.C. Circuit Court of Appeals could foreclose Option 1 by limiting EPA's authority to revoke a NAAQS prior to attainment. A 2006 decision in *South Coast Air Quality Management District v. EPA* upheld EPA's authority to revoke the older one-hour ozone NAAQS "prior to its attainment" where it had been replaced by the more stringent 1997 NAAQS, so long as adequate anti-backsliding provisions were applied.[149] Like a rotating wheel, this question has returned in a new case, also captioned *South Coast Air Quality Management District v. EPA,* challenging the revocation of the 1997 NAAQS prior to its attainment.[150] Petitioners claim nonattainment areas must timely attain each NAAQS regardless of any new standard.[151] Petitioners argue that by removing the prospects of reclassification and stricter requirements, revocation unlawfully "waives the consequences Congress prescribed for areas that fail to attain the 1997 standard."[152] If the court agrees with the Petitioners on this issue, EPA could be precluded from finalizing Option 1, such that the 2008 NAAQS would remain in effect for the DMNFR until it attains the 75 ppb standard.

2. Potential Withdrawal of the Control Techniques Guidelines for the Oil and Natural Gas Industry

States with moderate ozone nonattainment areas must revise their SIPs to include provisions requiring RACT for "each category of VOC sources in the area covered by a CTG document issued by the Administrator between November 15, 1990, and the date of attainment."[153] CTGs provide recommendations and constitute presumptive RACT, but states make RACT determinations and may opt to require alternative controls.[154] EPA defines RACT as "the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility."[155]

EPA published a CTG for the oil and natural gas industry (the "Oil and Gas CTG") in October 2016 and established a deadline of October 26, 2018 for states to submit RACT SIP revisions.[156] The Oil and Gas CTG recommends RACT provisions that are broadly similar to Colorado's state-only requirements for this industry. The Oil and Gas CTG recommends inspecting storage vessels and compressor stations with optical gas imaging devices in order to detect and repair leaks.[157] It also recommends certain emission control measures for pneumatic controllers, pneumatic pumps, compressors, equipment leaks, and fugitive emissions.[158] Colorado adopted regulations in 2014 requiring the use of infrared cameras or other Approved Instrument Monitoring Methods to detect and repair leaks at condensate tanks and compressor stations.[159] Colorado concluded its existing regulations did not fully satisfy RACT for the oil and gas source category. In

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[149] *South Coast Air Quality Mgmt. Dist. v. EPA*, 472 F.3d 882, 898-99 (D.C. Cir. 2006).

[150] *South Coast Air Qual. Mgnmt. Dist. v. EPA,* No. 15-1115 (D.C. Cir.).

[151] Proof Opening Brief of Envtl. Petitioners at 20-21, *South Coast,* No. 15-1115 (D.C. Cir. Mar. 3, 2016), Doc. No. 1604584.

[152] *Id.* at 20.

[153] 42 U.S.C. § 7511a(b)(2) (2016). SIPs must also require RACT for VOC sources covered by a CTG issued before November 15, 1990, and all other major stationary sources of VOC or NOx in the area. *Id.*; 42 U.S.C. § 7511a(f) (2016).

[154] *Natural Resources Defense Council v. EPA,* 571 F.3d 1245, 1254 (D.C. Cir. 2009).

[155] General Preamble for Proposed SIP Rulemaking, 44 Fed. Reg. 53,761, 53,762 (Sept. 17, 1979).

[156] Release of Final CTG for the Oil and Natural Gas Industry, 81 Fed. Reg. 74,798 (Oct. 27, 2016); Control Techniques Guidelines for the Oil and Natural Gas Industry (Oil and Gas CTG), EPA 453/B–16–001.

[157] Oil and Gas CTG at 4-20.

[158] *Id.*

[159] Colorado Air Quality Control Commission Reg. No. 7, § XVII.F.

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November 2017, the state adopted RACT requirements for this source category with the expectation of submitting a SIP revision to EPA. The state simultaneously adopted certain state-only provisions designed to better control ozone in the DMNFR.[160]

The potential withdrawal of the Oil and Gas CTG has been noticed in the Fall 2017 Unified Agenda of Regulatory and Deregulatory Actions.[161] The notice is unclear as to whether EPA intends to propose a withdrawal or merely to seek public comment regarding whether it should propose a withdrawal.[162] The effect of withdrawal is also unclear. Section 182(b)(2) requires RACT for "each category of VOC sources in the area covered by a CTG document issued" between certain dates, and is silent regarding withdrawal of the CTG. Arguments may be made that withdrawal eliminates the requirement for a RACT SIP because the source category is no longer "covered" by a CTG, or conversely that the RACT requirement survives because the CTG document was "issued" between the applicable dates and withdrawal would constitute illegal backsliding.

The effect of withdrawal will be smaller in Colorado than in other states with moderate ozone nonattainment areas. Many of the oil and gas RACT provisions were required by Colorado regulations before EPA published its Oil and Gas CTG. The new provisions Colorado adopted in 2017 will remain in effect as state-only regulations if withdrawal negates the requirement to submit RACT SIP revisions to EPA, although some housekeeping revisions would be necessary to label the requirements as state-only and not part of the SIP.

3. International Transport

Ambient ozone concentrations in the United States can be affected by local emissions and emissions from "a bordering country or from sources many thousands of miles away."[163] Congress recognized this fact and addressed international transport in Section 179B of the Clean Air Act.[164] In certain cases, this section "relieves states from imposing control measures on emissions sources in the state's jurisdiction beyond those necessary to address reasonably controllable emissions from within the U.S."[165]

Section 179B(a) requires EPA to approve a SIP that does not demonstrate timely attainment and maintenance of a NAAQS if the plan meets all other applicable requirements and the state establishes to the Administrator's satisfaction that "but for emissions emanating from outside of the United States," the area would attain and maintain the NAAQS.[166] This section applies to all criteria pollutants.

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[160] *Id.* §§ II, XII, XVII and XVIII.

[161] Notice of Proposed Withdrawal of the Final Control Techniques Guidelines for the Oil and Natural Gas Industry, RIN 2060-AT76 (Jan. 2018), https://www.reginfo.gov/public/do/eAgendaMain.

[162] The agenda entry is titled "Notice of Proposed Withdrawal" while the body states that "the EPA requests comment on potentially withdrawing these guidelines in their entirety." *Id.*

[163] 81 Fed. Reg. at 81303.

[164] 42 U.S.C. § 7509a (2016).

[165] Proposed 2015 Ozone NAAQS SIP Requirements Rule, 81 Fed. Reg. at 81,303.

[166] 42 U.S.C. § 7509a(a) (2016).

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Section 179B(b) is specific to ozone. It excludes ozone nonattainment areas from the reclassification provisions of Section 181(b)(2)[167] if the state satisfactorily demonstrates that the area would have timely attained the NAAQS but for emissions emanating from outside of the United States.[168] Such areas also avoid the mandatory emission fees that would otherwise apply to severe and extreme ozone nonattainment areas that fail to timely attain.[169]

The international transport provisions are narrow. Areas impacted by emissions from outside the United States are designated nonattainment and classified based on their ambient air quality.[170] The state remains subject to all requirements of the applicable ozone classification and no mandatory emissions control measures are relaxed. "States with nonattainment areas are expected to adopt reasonable emissions controls to lessen emissions of criteria pollutants to promote citizen health protection."[171] To that end, EPA's 2015 NAAQS SIP Requirements Rule proposes to require all states submitting a Section 179B demonstration to show they have adopted Reasonably Available Control Measures, including RACT, for all nonattainment areas, including marginal areas.[172]

Three states have utilized Section 179B to date.[173] All three share a border with Mexico. Questions remain regarding the statute's applicability, including whether the provision is limited to border states. The 2008 NAAQS SIP Requirements Rule indicates that "EPA does not believe this provision is restricted to areas adjoining international borders."[174] EPA later explained that it anticipates Section 179B will most often be used by border states and solicited comment on whether other states should be eligible.[175]

The DMNFR is impacted by international emissions. As part of its overall photochemical modeling and sensitivity analyses, a contractor to the Regional Air Quality Council conducted a preliminary "zero-out" modeling analysis. Using the 2011 SIP modeling platform, the contractor removed anthropogenic emissions emanating outside the United States to evaluate the incremental impact of those emissions in Colorado. Preliminary results indicate that the 2011 ozone concentrations at the four DMNFR monitoring sites with the highest ozone levels would have been approximately 6-7 ppb lower in the absence of international anthropogenic emissions, a difference large enough for the DMNFR to attain the 2008 NAAQS.[176] The modeling results are preliminary and other techniques are available for evaluating the impact of background and transported ozone. Colorado currently has no plans to submit a Section 179B demonstration but has stated it intends to evaluate the issue.

4. Potential Administrative Reforms

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[167] The text of the statute refers to Section 181(a)(2), codified at 42 U.S.C. § 7511(a)(2) (2016). EPA believes this reference is erroneous and should cite Section 181(b)(2). 81 Fed. Reg. at 81,303 n.76.

[168] 42 U.S.C. § 7509a(b) (2016).

[169] *Id.*

[170] 81 Fed. Reg. at 81,304.

[171] *Id.*

[172] *Id.*

[173] El Paso, TX (one-hour ozone NAAQS), Nogales, AZ (PM-10 NAAQS), and Imperial Valley, CA (PM-10). *See* 81 Fed. Reg. at 81,303-04.

[174] 2008 NAAQS SIP Requirements Rule, 80 Fed. Reg. at 12,294.

[175] 81 Fed. Reg. at 81,303-04.

[176] Ramboll Environ and Alpine Geophysics, "Ozone Contributions of International Emissions Using 2011 Modeling Platform" (Nov. 2, 2017), http://raqc.org/documents/modeling-emissions-inventories/.

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Regulatory reform may occur through administrative changes that provide additional flexibility or certainty to states. Some potential reforms are identified in the Fall 2017 Unified Regulatory Agenda, which indicates that EPA plans to publish an Advance Notice of Proposed Rulemaking in approximately February 2018 of a regulation to increase consistency, reliability and transparency when EPA calculates regulatory costs.[177] EPA's Statement of Priorities accompanying the Regulatory Agenda indicates that, among other things, EPA plans to reform certain aspects of New Source Review and Title V permitting.[178] EPA plans to complete actions to streamline air quality modeling by issuing final guidance on ozone significant impact levels (SILs) and Modeled Emissions Rates for Precursors. EPA plans to further revise the exceptional event rule and associated guidance to provide greater flexibility to states. EPA will examine several reforms intended to simplify NNSR and Title V permitting.[179]

EPA also identifies a number of potential changes in its August 14, 2017 "Report to Congress on Administrative Options to Enable States to Enter into Cooperative Agreements to Provide Regulatory Relief for Implementing Ozone Standards" (Administrative Options Report).[180] The report addresses cooperative agreements regarding NAAQS implementation, including the 1997 ozone NAAQS Early Action Compacts (EAC).[181] The Administrative Options Report concludes that the EAC program had positive results and successfully provided flexibility for early attainment but "was outside of EPA's statutory authority."[182] The report seems to suggest a willingness to entertain similar cooperative agreements in the future, provided they comply with the Clean Air Act.[183]

The Administrative Options Report states that EPA "intends to further examine and, where appropriate, make available additional regulatory relief in its final implementation rule for the 2015 ozone NAAQS."[184] The forms of regulatory relief identified for further evaluation include streamlining preconstruction permitting review, establishing a nonattainment area classification scheme that maximizes flexibility for local solutions, and flexibility for areas significantly impacted by background ozone. EPA indicates that some have suggested providing relief from background ozone by excluding exceedances, deferring designations, or designating areas as unclassifiable, and the agency is exploring whether these suggestions may be viable.[185]

5. Potential Reforms of Emission Control Regulations

Consistent with Executive Orders 13,771, 13,777 and 13,783, EPA has proposed to rescind, replace, revise or delay certain emission control regulations. At least three of these proposals could significantly affect ozone precursor emissions and could have some impact on the DMNFR's ability to attain ozone standards.

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[177] Increasing Consistency, Reliability, and Transparency in the Rulemaking Process, RIN 2010-AA12, https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=201710&RIN=2010-AA12.

[178] EPA Statement of Priorities, https://www.reginfo.gov/public/jsp/eAgenda/StaticContent/201710/Statement_2000.html.

[179] *Id.*

[180] Congress directed this report in the *Consolidated Appropriations Act, 2017* (P.L. 115-31).

[181] Administrative Options Report at 4-7.

[182] *Id.* at 6.

[183] *Id.* at 10.

[184] *Id.* at 9.

[185] *Id.* at 9-10.

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EPA proposed to repeal the emission requirements for glider vehicles, glider engines, and glider kits.[186] A glider vehicle is a truck body or cab with a previously owned engine and powertrain. Together, the truck body parts and used powertrain are known as a glider kit.[187] In a 2016 joint rulemaking, EPA determined that it has the authority to regulate glider vehicles as new motor vehicles under Section 202(a)(1) and subjected them to new vehicle emission and fuel efficiency standards.[188] While the rule targets greenhouse gases, EPA and the National Highway Traffic Safety Administration jointly calculated that in 2025 the standards would avoid over 190,000 tpy of NOx and over 5,000 tpy of particulate matter nationwide.[189] EPA now proposes to repeal the emission standards based on a new interpretation that glider vehicles are not new motor vehicles and are outside EPA's authority to regulate.[190] Colorado does not implement the glider vehicle emission requirements, but its repeal would result in higher emissions of NOx, an ozone precursor, in the DMNFR.

EPA has proposed to delay certain requirements of 40 C.F.R. Part 60, Subpart OOOOa, New Source Performance Standards for Crude Oil and Natural Gas Facilities.[191] EPA has indicated it will reconsider Subpart OOOOa and plans to publish a Notice of Proposed Rulemaking in approximately August 2018.[192] Colorado adopted regulations broadly similar to Subpart OOOOa in 2014 and adopted additional related requirements in 2017. Delays or revisions to Subpart OOOOa would have a limited impact on emissions in Colorado, but will result in higher emissions in other states that lack similar rules. The DMNFR is impacted by interstate transport of ozone and ozone precursors, and thus could be affected to some degree by the proposals.

EPA has proposed the repeal the Clean Power Plan, and has separately solicited comments on a potential replacement of that rule.[193] The Clean Power Plan targets carbon dioxide emissions but would also result in significant reductions of NOx. Colorado is not currently working to implement the Clean Power Plan. Nonetheless, the DMNFR could be affected if the Clean Power Plan is repealed or replaced in a manner that leads to higher emissions of ozone precursors.

VI. Colorado's Response to Regulatory Reform

Federal regulatory reform is causing great uncertainty with respect to the Clean Air Act and ozone planning. The potential actions of Congress, the courts, and especially the EPA are

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[186] Proposed Repeal of Emission Requirements for Glider Vehicles, 82 Fed. Reg. 53,442 (Nov. 16, 2017).

[187] 82 Fed. Reg. at 53,443.

[188] GHG Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles, Phase 2, 81 Fed. Reg. 73,478, 73,514 (Oct. 25, 2016).

[189] EPA and NHTSA, GHG Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles, Phase 2: Response to Comments for Joint Rulemaking, EPA-420-R-16-901 at 1962, Table A-1 (Aug. 2016).

[190] 82 Fed. Reg. at 53,446.

[191] Proposed Three Month Stay, 82 Fed. Reg. 27,641 (June 16, 2017); Proposed Two Year Stay, 82 Fed. Reg. 27,645 (June 16, 2017). The D.C. Circuit previously vacated EPA's partial stay of the rule under 42 U.S.C. § 7607(d). *Clean Air Council v. EPA,* 862 F.3d 1, 14 (D.C. Cir. July 3, 2017).

[192] Oil and Natural Gas Sector, Emission Standards for New, Reconstructed, and Modified Sources Reconsideration, Fall 2017 Unified Agenda, RIN 2060-AT54, https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=201710&RIN=2060-AT54.

[193] Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (Proposed), 82 Fed. Reg. 48,035 (Oct. 16, 2017); State Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units (Advanced Notice of Proposed Rulemaking), 82 Fed. Reg. 61,507 (Dec. 28, 2017).

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complicating state air planning efforts. Colorado might travel along one or more of several regulatory paths, depending on federal actions and future air quality data:

- Colorado might begin implementing the 2015 NAAQS in 2018, although EPA might not publish the SIP Requirements Rule or nonattainment area classifications for 12 months or more.
- Congress might delay by eight years the designation or SIP submittal deadlines of the 2015 NAAQS.
- EPA might reconsider the 2015 NAAQS, but the effect of such an administrative revision would be uncertain, particularly if EPA had already designated nonattainment areas.
- The 2008 NAAQS of 75 ppb might be revoked before Colorado's attainment deadline, subjecting Colorado to anti-backsliding requirements and precluding further reclassifications.
- The DMNFR might timely attain the 2008 NAAQS after qualifying for clean data year extensions.
- The DMNFR might fail to timely attain the 2008 NAAQS and face reclassification as a serious nonattainment area, resulting in substantial new regulatory requirements.
- The DMNFR might fail to timely attain the 2008 NAAQS, yet qualify to remain classified as a moderate area under the Section 179B provisions for international emissions.
- EPA might withdraw its oil and natural gas Control Techniques Guideline, effectively transforming Colorado's recent SIP revision into a state-only regulation.
- Administrative reforms to the exceptional events rule, nonattainment new source review provisions, Title V permitting, and other programs might provide additional flexibility.

Colorado is treating this period of uncertainty as an opportunity to reduce emissions and attain the federal ozone standards outside the traditional SIP framework. This approach advances the mission of the Colorado Department of Public and Environment, which is "to protect and improve the health of Colorado's people and the quality of its environment.[194] It also comports with Colorado's history of adopting innovative strategies that go beyond federal standards.

For example, Colorado's 2014 oil and natural gas regulation utilized infrared camera technology and was the first in the nation to regulate methane.[195] Colorado's rule influenced EPA's subsequent adoption of its oil and natural gas New Source Performance Standards.[196] In 2017, Colorado strengthened its rules and adopted new requirements to inspect pneumatic controllers at oil and gas facilities and repair those that are found to be operating improperly.[197] Also in 2017, Colorado began alerting several industry trade groups of high ozone forecasts and requesting voluntary measures on the affected days.

Going forward, Colorado will build on its program for voluntary measures in 2018. Colorado launched two stakeholder processes in January 2018, one to collect information about pneumatic controllers and the other to develop statewide hydrocarbon emission reduction strategies. Colorado is optimistic that the voluntary measures, stakeholder processes, and other emission

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[194] CDPHE Strategic Plan 2016-2019 at 3, https://www.colorado.gov/pacific/sites/default/files/OPP_CDPHE-2016-2019-Strategic-Plan-FY2017-18.pdf.

[195] AQCC Reg. No. 7, § XVII.F.

[196] Proposed Oil and Natural Gas NSPS, 80 Fed. Reg. 56,593, 56,616 (Sept. 18, 2015).

[197] AQCC Reg. No. 7, § XVIII.F.

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control strategies under development, in conjunction with the state's comprehensive air quality regulations, will achieve rapid, meaningful, and cost-effective reductions of ozone precursor emissions.

VII. Conclusion

The EPA's regulatory reform agenda is poised to shift authority from the federal government to the states. EPA's reforms will take time to unfold and the outcome is unknown, but the reforms may result in greater flexibility for states and the regulated community. As the sovereign entity with the primary responsibility for air quality in Colorado, the state will capitalize on federal regulatory reforms to develop local strategies to improve air quality and attain national ambient air quality standards.

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Recent Events and Trends from the State Perspective

Chris Colclasure, J.D.

RMMLF Special Institute on Air Quality

February 6-7, 2018

ED_004016P_00001048-00297

- Mr. Colclasure is the Deputy Director of the Colorado Department of Public Health and Environment, Air Pollution Control Division
- The views expressed herein are solely his own

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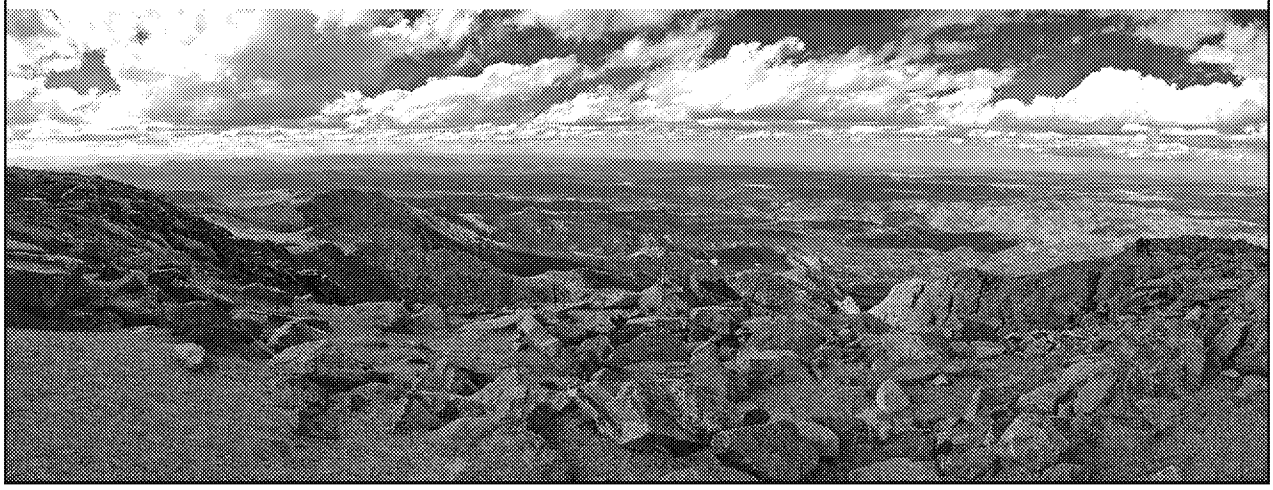
The Regulatory Reform Agenda

- EPA: "Rebalance the power between Washington and the states"
- Administrator Pruitt embraces cooperative federalism
- "The days of coercive federalism are over"



Executive Orders

- E.O. 13771, “Two for One” repeal of regulations
- E.O. 13777, Enforcing the Regulatory Reform Agenda
- E.O. 13783, Promoting Energy Independence and Economic Growth

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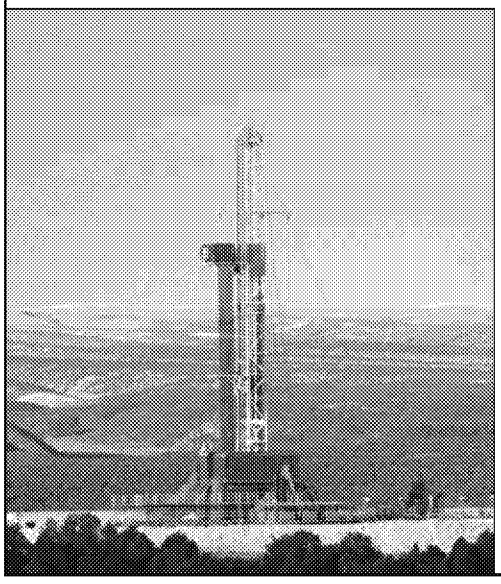
Regulatory Reform is Underway



- 14 Congressional Review Act resolutions of disapproval
- Many air quality actions on OMB Unified Agenda
- EPA's regulatory reform page:

https://www.epa.gov/laws-regulations/regulatory-reform

5

Regulatory Reform and Ozone

Existing Ozone Requirements in Colorado

6

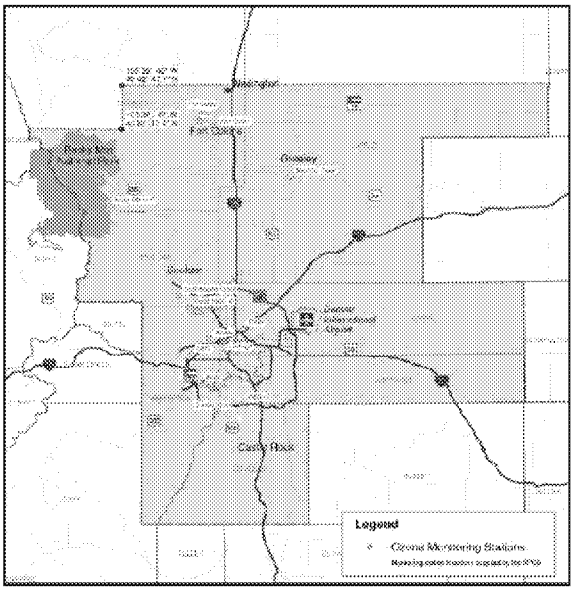
Overview of Ozone Planning

EPA	States
▸ Sets National Ambient Air Quality Standards (NAAQS) ◦ Health-based ▸ Designates geographic areas ▸ Reviews SIPs ▸ Modifies areas based on monitored data	▸ Attain NAAQS ▸ Submit and enforce State Implementation Plans (SIPs) ◦ Modeling ◦ Permits ◦ Regulations ◦ More ▸ Monitor and report air quality

7

Denver Metro/North Front Range Nonattainment Area (DMNFR)

- Moderate area for 75 ppb NAAQS
- Expect 70 ppb Marginal designation early summer 2018



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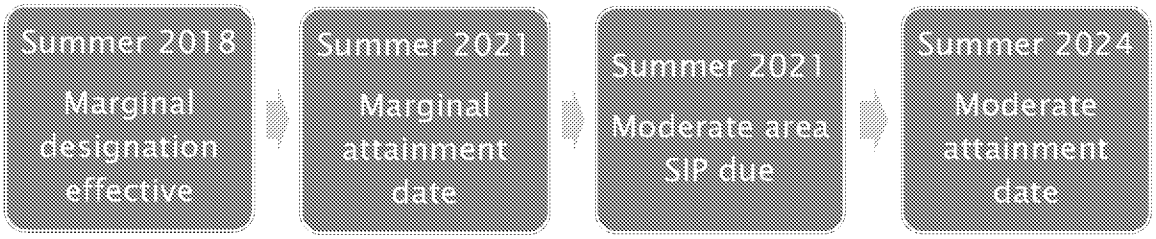
2015 NAAQS in the DMNFR



Key SIP Requirements for Colorado

Marginal Area
- Emissions Inventory

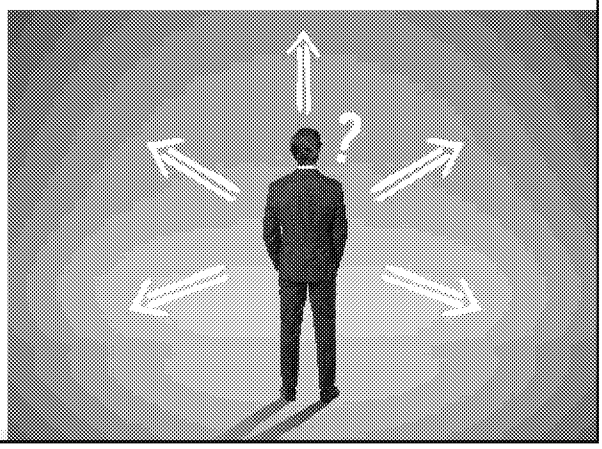
Moderate Area
- Cut VOC or NOx 15%
- Update Reasonably Available Control Technology rules

9

2008 NAAQS in the DMNFR

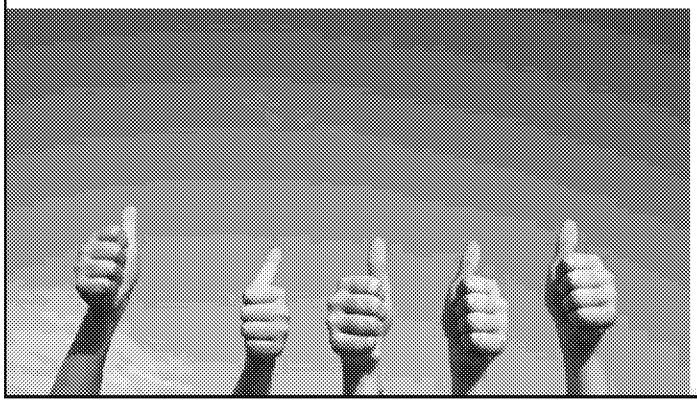
- Range of potential outcomes
- If attain 75 ppb
  - Redesignate as Attainment (Maintenance)
- If fail to attain 75 ppb
  - Potential Serious reclassification

- Federal action may affect:
  - Deadlines
  - Reclassification
  - 2008 NAAQS revocation



2008 NAAQS – Attain 75 ppb

- Best outcome
- How it happens:
  - Clean data year extensions in 2017 and 2018
  - 2017–2019 design value below 76 ppb
- What it means:
  - Redesignate as Attainment (Maintenance)
  - Submit two 10-year Maintenance plans



11

2008 NAAQS – Reclassify as Serious

- Could take effect January 2020 or 2021
- Major source threshold drops to 50 tpy of VOC or NOx
  - Up to 500 existing sources might need operating permits
  - New/modified major sources need New Source Review (NSR) permits
  - Major sources must offset emission increases by factor of 1.2
- Revise RACT SIP

12

Regulatory Reform and Ozone

How Reform May Affect Colorado

13

Potential Reforms of Ozone Standards

- EPA might revise 2015 NAAQS
  - Effect on forthcoming designations unclear
- Congress might:
  - Delay 2015 NAAQS implementation
  - Revise 5-year NAAQS review schedule
  - Relax some SIP requirements

Potential Administrative Reforms

EPA Report to Congress, August 14, 2017

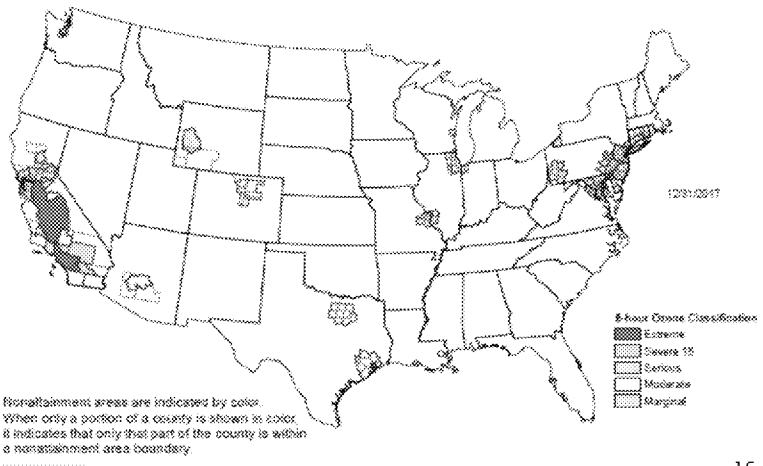
Existing Options	EPA Intends to Evaluate
Early Action Compacts Exceptional events Small NAA boundaries Rural transport areas International transport PSD permit grandfathering Revoking prior standards	Streamlining NSR Other flexibilities for background ozone ◦ Excluding high background days ◦ Deferring designations ◦ Designating as Unclassifiable NAA classification scheme

15

Provisions that May Affect DMNFR Reclassification

- Exceptional events
  - CDPHE is documenting Sept. 2 and Sept. 4, 2017
- Interstate transport

8-Hour Ozone Nonattainment Areas (2008 Standard)



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International Transport, Section 179B

- If a state satisfactorily shows an area would attain but for international emissions:
  - EPA will approve attainment demonstration
  - Not subject to reclassification
- All other requirements apply
  - Areas still designated and classified
  - Expected to adopt reasonable emissions controls
- DMNFR "zero out" modeling shows 6-7 ppb decrease
- No current plans to invoke § 179B for DMNFR

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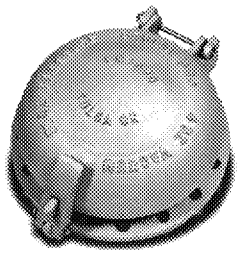
Potential 2008 NAAQS Revocation

- EPA proposed to revoke 2008 NAAQS after designating 2015 areas
  - Solicited comment on whether to revoke 2008 NAAQS for areas that have not yet attained it
  - Litigation pending
- Outcome may affect the DMNFR
- Anti-backsliding rules will apply

Potential O&G CTG Withdrawal

- Control techniques guideline (CTG) for oil & gas sector finalized Oct. 2016
  - Establishes presumptive RACT
  - Includes optical gas imaging
  - Moderate areas must revise RACT SIP
- EPA solicited comment on CTG withdrawal
- Colorado adopted SIP revision Nov. 2017
  - Colorado rule would become state-only



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Potential Reform of Emission Standards

- EPA might rescind, revise, or delay rules including:
  - Truck glider and trailer rule
  - Clean Power Plan
  - NSPS OOOOa
- BLM "venting and flaring" rule
- Lawsuits filed, outcome uncertain

20

Impact of the Regulatory Reform Agenda on Federal–State Relationships

21

Wide-Ranging Effects

- Uncertainty is high
- State-federal relationship may change
- States welcome flexibility
- Must still attain NAAQS and protect air quality

22

Federal Role in Cooperative Federalism

- Set national standards
  - National minimums to protect health and environment
- Provide uniformity and technical expertise
- Partner with states to develop policy
- Respect local solutions
- Federal backstop supports state action

23

State Role in Cooperative Federalism

- States are primary implementers
- Determine how to meet national standards
- Enforcement and compliance assistance
- Engage local stakeholders
- Promote equity
- Innovate

24

"Cooperative Federalism 2.0"

- Environmental Council of the States
- Adequate financial support needed
- Set outcome metrics
- Continually improve working relationships
  - National consistency, state flexibility
- EPA should audit state programs
  - Don't routinely review individual actions
- States need flexibility

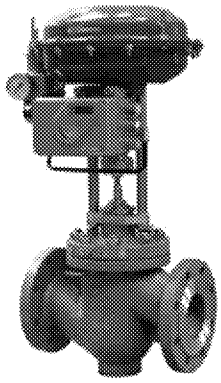
25

Colorado's Response to Federal Reforms

- Manage uncertainty
- Reduce emissions, protect public health
- Develop Colorado solutions for air quality
- Lead where appropriate
- Innovate
  - Utilize new technologies
  - Build consensus for new approaches
- Engage with partners

26

Specific Colorado Actions – Oil and Gas



- 2014 methane rule
- Voluntary actions on high ozone days
- Oil and Gas RACT SIP
- Statewide emission reduction stakeholder process

- Pneumatic controller task force
- Clean engine incentives

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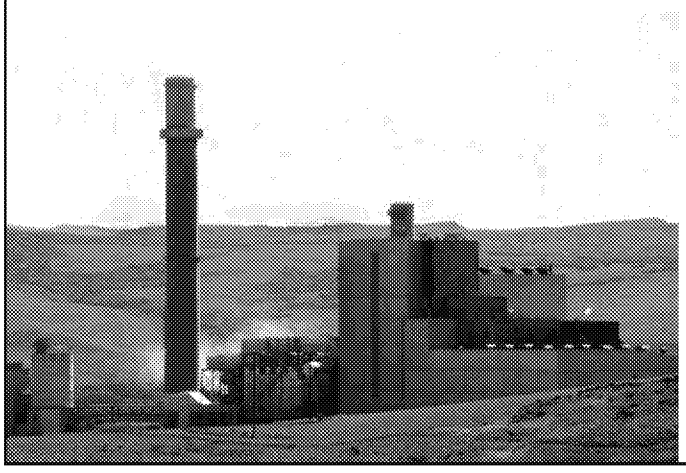
Additional Colorado Actions



- Volkswagen settlement
- Electric vehicle plan
- Electricity sector emission reductions
- Fuel study
- GHG reporting rule and inventory

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Regulatory Reform Presents Opportunities to States

- Implement the state's vision
- Innovate
- Improve working relationship with EPA
- Pragmatic, meaningful, flexible, and rapid emission reductions

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Questions?

Addressing Ethical Issues in Transactional Due Diligence and Negotiations

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Denver, CO

Lucy Stark, Partner
Holland and Hart LLP
Denver, CO

Paper 7

ADDRESSING ETHICAL ISSUES IN TRANSACTIONAL DUE DILIGENCE AND NEGOTIATIONS

I. Communications Ground Rules

a. Must balance duty to maintain client confidentiality[1] with duty of honesty[2] as well as weighing public interests (as defined in Rule 1.6(b)).

b. Applicable guidance – Rule 1.6

i. ABA Model Rule 1.6(a) "A lawyer shall not reveal information relating to the representation of a client unless the client gives informed consent, the disclosure is impliedly authorized in order to carry out the representation, or the disclosure is permitted by paragraph (b)"[3] . . . .

ii. ABA Model Rule 1.6(b) permits a lawyer to reveal otherwise confidential client information to "to the extent the lawyer reasonably believes necessary:

1. to prevent reasonably certain death or substantial bodily harm;
2. to prevent the client from committing a crime or fraud that is reasonably certain to result in substantial injury to the financial interests or property of another and in furtherance of which the client has used or is using the lawyer's services;
3. to prevent, mitigate or rectify substantial injury to the financial interests or property of another that is reasonably certain to result or has resulted from the client's commission of a crime or fraud in furtherance of which the client has used the lawyer's services . . ."[4]

iii. Comment 6 to ABA Model Rule 1.6:Paragraph (b)(1) recognizes the overriding value of life and physical integrity and permits disclosure reasonably necessary to prevent reasonably certain death or substantial bodily harm. Such harm is reasonably certain to occur if it will be suffered imminently or if there is a present and substantial threat that a person will suffer such harm at a later date if the lawyer fails to take action necessary to eliminate the threat.[5]

iv. Comment 7 to ABA Model Rule 1.6: Paragraph (b)(2) is a limited exception to the rule of confidentiality that permits the lawyer to reveal information to the extent necessary to enable affected persons or appropriate authorities to prevent the client from committing a crime or fraud, as defined in Rule 1.0(d), that is reasonably certain to result in substantial injury to the financial or property interests of another and in furtherance of which the client has used or is using the lawyer's services. . . . .See also Rule 1.16 with respect to the lawyer's obligation or right to withdraw from the representation of the client in such circumstances, and Rule 1.13(c), which permits the lawyer, where the client is an organization, to reveal information relating to the representation in limited circumstances.[6]

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[1] ABA Model Rules of Professional Conduct, Rule 1.6 (2016).
[2] ABA Model Rules of Professional Conduct, Rule 4.1 (2016).
[3] ABA Model Rules of Professional Conduct, Rule 1.6 (2016).
[4] Id.
[5] ABA Model Rules of Professional Conduct, Comment 6 to Rule 1.6 (2016).
[6] ABA Model Rules of Professional Conduct, Comment 7 to Rule 1.6 (2016).

The views expressed in this paper are solely those of the author (or authors).
Please cite as: Ronald R. Levine II & Lucy Stark, "Addressing Ethical Issues in Transactional Due Diligence and Negotiations," *Air Quality Issues Affecting Oil, Gas, and Mining Development and Operations* 7-1 (Rocky Mt. Min. L. Fdn. 2018).

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v. Comment 8 to ABA Model Rule 1.6: Paragraph (b)(3) addresses the situation in which the lawyer does not learn of the client's crime or fraud until after it has been consummated. . . . [T]here will be situations in which the loss suffered by the affected person can be prevented, rectified or mitigated. In such situations, the lawyer may disclose information relating to the representation to the extent necessary to enable the affected persons to prevent or mitigate reasonably certain losses or to attempt to recoup their losses.[7]

c. Applicable Guidance – Rule 4.1

i. Model Rule 4.1: Truthfulness in Statements to Others. " In the course of representing a client a lawyer shall not knowingly: (a) make a false statement of material fact or law to a third person; or (b) fail to disclose a material fact to a third person when disclosure is necessary to avoid assisting a criminal or fraudulent act by a client, unless disclosure is prohibited by Rule 1.6."[8]

ii. Preamble to the ABA Model Rules of Professional Conduct: "As negotiator, a lawyer seeks a result advantageous to the client but consistent with requirements of honest dealings with others."[9]

iii. "a lawyer shall not knowingly". . Per Model Rule 1.0(f), "knowingly" means actual knowledge of the fact in question. A person's knowledge may be inferred from the circumstances.

iv. Comment 1 to ABA Model Rule 4.1: "Misrepresentation", states that while a lawyer must be truthful when dealing with others on a client's behalf, lawyers have no affirmative duty to inform an opposing party of relevant facts. A misrepresentation/false statement may occur where (1) a lawyer incorporates or affirms a statement of another person that the lawyer knows is false; or (2) a lawyer makes a partially true but misleading statement or omission that is the equivalent of an affirmative false statement.

v. Comment 2 to ABA Model Rule 4.1: "Statements of Fact," essentially endorses "puffery," which is often defined as acceptable posturing or exaggeration in an attempt to gain a bargaining advantage. This Comment specifies the types of statements made during negotiations that, under "generally accepted conventions in negotiation," are not ordinarily taken as false statements of material fact—(1) estimates of price or value placed on the subject of a transaction, (2) a party's intentions as to an acceptable settlement of a claim, and (3) the existence of an undisclosed principal except where nondisclosure of the principal would constitute fraud. Whether a statement is a "statement of fact" depends on the circumstances.

II. Duty of disclosure

a. Disclosure responsibilities to counter-parties

i. Per Rule 4.1, generally no duty to disclose material facts to a third party, and per 1.6 may be significantly limited in ability to do so.

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[7] ABA Model Rules of Professional Conduct, Comment 8 to Rule 1.6 (2016).

[8] ABA Model Rules of Professional Conduct, Rule 4.1 (2016).

[9] ABA Model Rules of Professional Conduct, Preamble and Scope (2016).

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ii. Rule 4.1 requires disclosure of "a material fact to a third person when disclosure is necessary to avoid assisting a criminal or fraudulent act by a client, unless disclosure is prohibited by Rule 1.6."

b. Disclosure responsibilities to government/regulators

i. Consider applicability of "crime/fraud" or "substantial injury" exceptions 1.6(b).

ii. Comment 12 to ABA Model Rule 1.6 points out that other laws may require that a lawyer disclose information about a client. If it appears that the law supersedes the Rules of Professional Conduct, "the lawyer must discuss the matter with the client to the extent required by Rule 1.4. If, however, the other law supersedes this Rule and requires disclosure, paragraph (b)(6) permits the lawyer to make such disclosures as are necessary to comply with the law."

c. Disclosure within a corporate client.

i. ABA Model Rule 1.13: Organization as Client:

1. A lawyer employed or retained by an organization represents the organization acting through its duly authorized constituents.
2. A lawyer representing an organization may also represent any of its directors, officers, employees, members, shareholders or other constituents, subject to the provisions of Rule 1.7. If the organization's consent to the dual representation is required by Rule 1.7, the consent shall be given by an appropriate official of the organization other than the individual who is to be represented, or by the shareholders.
3. Rule 1.7 states that a lawyer will not represent a client if the representation involves a concurrent conflict of interest, which may exist where "(1) the representation of one client will be directly adverse to another client; or (2) there is a significant risk that the representation of one or more clients will be materially limited by the lawyer's responsibilities to another client, a former client or a third person or by a personal interest of the lawyer." No conflict of interest exists if each affected client gives informed consent.

ii. Comment 2 to ABA Model Rule 1.13: Comment [2] states that when a constituent of an organizational client communicates with the organization's lawyer in that person's organizational capacity, the communication is protected by Rule 1.6, as confidential client information. However, constituents of an organizational client are NOT the clients of the lawyer. The lawyer may not disclose to such constituents information relating to the representation (of the organization) except for disclosures explicitly or impliedly authorized by the organizational client in order to carry out the representation or as otherwise permitted by Rule 1.6.

iii. Comment 10 to ABA Model Rule 1.13: Notes that an organization's interest may be or become adverse to those of one or more of its constituents. In that event, the lawyer should advise any such constituent that the lawyer cannot represent them, and that they may wish to obtain independent representation. It is important for the lawyer to clarify that discussions between the lawyer for the organization and the constituent may not be privileged.

iv. Comment 11 to ABA Model Rule 1.13: whether the warning specified in Comment 10 must be given will depend on the facts of each case.

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d. **Negotiating**
    i. Statements of fact vs. opinions. Price or value on a transaction or a party's intentions generally not considered facts (though statement regarding prior valuations is generally a statement of fact).
    ii. Puffery vs. Misrepresentations
        1. Puffing = outrageous generalized statements, not specific, exaggerated so as to preclude reliance by other party.
        2. The more particular/ less outrageous, the more likely to be considered misrepresentations.
    iii. Duty to correct errors.
    iv. Silence as misrepresentation. Omissions or partially true statements can be considered misrepresentations.

III. Duty of confidentiality in negotiations

a. **Applicable guidance**
    i. ABA Model Rule 1.6(a) and (b) (see above).
    ii. ABA Model Rule 1.6 (c) "A lawyer shall make reasonable efforts to prevent the inadvertent or unauthorized disclosure of, or unauthorized access to, information relating to the representation of a client."[10]
    iii. Comment 5 to ABA Model Rule 1.6: "Authorized Disclosure. [5] Except to the extent that the client's instructions or special circumstances limit that authority, a lawyer is impliedly authorized to make disclosures about a client when appropriate in carrying out the representation. In some situations, for example, a lawyer may be impliedly authorized to admit a fact that cannot properly be disputed or to make a disclosure that facilitates a satisfactory conclusion to a matter."[11]

b. **Negotiating.** When negotiating terms of a deal on behalf of a client, when is this duty breached? E.g., compromising on something the client doesn't care about without the client's explicit approval is probably impliedly authorized by the above Comment 5, but will depend greatly on facts and circumstances (with 20/20 hindsight).

IV. Crime or Fraud by Client

a. **Applicable guidance**
    i. ABA Model Rule 1.2(d): "A lawyer shall not counsel a client to engage, or assist a client, in conduct that the lawyer knows is criminal or fraudulent, but a lawyer may discuss the legal consequences of any proposed course of conduct with a client and may counsel or assist a client to make a good faith effort to determine the validity, scope, meaning or application of the law."[12]
    ii. Comment 9 to ABA Model Rule 1.2(d): "Paragraph (d) . . . does not preclude the lawyer from giving an honest opinion about the actual consequences that appear likely to result from a client's conduct. Nor does the fact that a client uses advice in a course of action that is criminal or fraudulent itself make a lawyer a party to the course of action. There is a critical distinction between presenting an analysis of legal aspects of questionable conduct and

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[10] Id.
[11] ABA Model Rules of Professional Conduct, Comment 5 to Rule 1.6 (2016).
[12] ABA Model Rules of Professional Conduct, Rule 1.2(d) (2016).

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recommending the means by which a crime or fraud might be committed with impunity."[13]

iii. Comment 10 to ABA Model Rule 1.2(d): "When the client's course of action has already begun and is continuing, the lawyer's responsibility is especially delicate. The lawyer is required to avoid assisting the client, for example, by drafting or delivering documents that the lawyer knows are fraudulent or by suggesting how the wrongdoing might be concealed. A lawyer may not continue assisting a client in conduct that the lawyer originally supposed was legally proper but then discovers is criminal or fraudulent. The lawyer must, therefore, withdraw from the representation of the client in the matter. . . . In some cases, withdrawal alone might be insufficient. It may be necessary for the lawyer to give notice of the fact of withdrawal and to disaffirm any opinion, document, affirmation or the like."[14]

V. Acting in a dual capacity

a. **Applicable guidance.**

i. Preamble to the ABA Model Rules of Professional Conduct:

1. "A lawyer, as a member of the legal profession, is a representative of clients, an officer of the legal system and a public citizen having special responsibility for the quality of justice."[15]
2. "A lawyer's conduct should conform to the requirements of the law, both in professional service to clients and in the lawyer's business and personal affairs."[16]

ii. ABA Model Rule 8.4: Misconduct. "It is professional misconduct for a lawyer to (a) violate or attempt to violate the Rules of Professional Conduct, knowingly assist or induce another to do so, or do so through the acts of another;"[17]

b. **Choosing Hats.** Because a lawyer is subject to these standards, a lawyer may not pick and choose the role she will play (lawyer vs. business person) at any time. A lawyer must always adhere to applicable ethics rules, whether or not acting as a lawyer. For example, the Securities Exchange Commission has in the past signaled its intention to enforce standards applicable to attorneys.[18]

VI. Attorney-client and work product privilege

a. **Applicable guidance**:

i. Attorney-Client Privilege is one of the oldest recognized privileges. The U.S. Supreme court has stated that by assuring confidentiality, the privilege encourages clients to make "full and frank disclosures" to their attorneys, who are then better able to provide candid advice and effective representation.[19]

ii. ABA Model Rule 1.6 and Confidentiality (see Section III(a) above).

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[13] ABA Model Rules of Professional Conduct, Comment 9 to Rule 1.2 (2016).
[14] ABA Model Rules of Professional Conduct, Comment 10 to Rule 1.2 (2016).
[15] ABA Model Rules of Professional Conduct, Preamble and Scope (2016).
[16] Id.
[17] ABA Model Rules of Professional Conduct, Rule 8.4 (2016).
[18] *See*, In re George C. Kern, Jr. [1991 Transfer binder] Fed Sec L. Rep (CCH) 84,815 (June 21, 1991), aff'd, [1988-1989] Fed. Sec. L. Rep. (CCH) 84,342 (Nov. 14, 1988) (Administrative proceeding against attorney and board member George Kern, who was found to have "caused" his client to violate disclosure requirements).
[19] Upjohn Co. v. United States, 449 U.S. 383, 389 (1981).

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iii. In addition, ABA Model Rule 1.6(c) requires that "A lawyer shall make reasonable efforts to prevent the inadvertent or unauthorized disclosure of, or unauthorized access to, information relating to the representation of a client."[20]

iv. Further, ABA Model Rules, the Colorado Bar (and other states) rules require that lawyers "provide competent representation to a client"[21] and more than half of the states have adopted a rule of technology competence, requiring that "a lawyer should keep abreast of . . . changes in communications and other relevant technologies."[22]

1. Comment 8 to Rule 1.1 of the ABA Model Rules of Professional Conduct states: "To maintain the requisite knowledge and skill, a lawyer should keep abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology, engage in continuing study and education and comply with all continuing legal education requirements to which the lawyer is subject." [23]
2. Colorado's Comment 8 reads: "To maintain the requisite knowledge and skill, a lawyer should keep abreast of changes in the law and its practice, and changes in communications and other relevant technologies, engage in continuing study and education, and comply with all continuing legal education requirements to which the lawyer is subject. See Comments [18] and [19] to Rule 1.6."[24]
3. Note the references in the Colorado Rule to Comments to Rule 1.6 (Confidentiality). These imply a lawyer may be required to implement special security under certain circumstances.

b. **Creating Privilege**? Attorney-Client Privilege is created when each of the following occurs:

i. The asserted holder of the privilege is (or sought to become) a client;

ii. The person to whom communication was made is a member of the bar (or a subordinate to a member of the bar) and is acting as an attorney for purposes of these communications; and

iii. The communication was for the purpose of securing legal advice.

c. **Work Product.** Separate and distinct from privilege. Covers "tangible material (or its intangible equivalent)."[25] Can include materials prepared not just by the lawyer, but by anyone, as long as they were prepared with an eye toward the realistic possibility of impending litigation.[26] Work product protection can be overcome by necessity or other strong justification.

d. **Interaction between privilege, work product and emails**

i. **Losing Privilege**: Attorney-Client Privilege can be lost in various circumstances, but the most common exceptions are that the communication 1) was made in the presence of individuals who were neither the lawyer nor the client, or 2) was disclosed to such persons.

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[20] ABA Model Rules of Professional Conduct, Rule 1.6(c) (2016).
[21] ABA Model Rules of Professional Conduct, Rule 1.1 (2016).
[22] *See,* Colorado Rules of Professional Conduct, Comment 8 to Rule 1.1 (adopted April 6, 2016).
[23] ABA Model Rules of Professional Conduct, Comment 8 to Rule 1.1 (2016).
[24] Colorado Rules of Professional Conduct, Comment 8 to Rule 1.1 (adopted April 6, 2016).
[25] Federal Rule of Evidence 502.
[26] Federal Rules of Civil Procedure 26(b)(3).

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1. careless use of email and other technology by both clients and attorneys can result in a loss of confidentiality and other privileges.
    a. clients using employer work email systems, shared computer systems (hotel, library), shared laptop or smartphone.
    b. careless, inadequate or rarely changed passwords
    c. new frontiers of lawyer competence
    d. inadvertent delivery of email to wrong addressee

ii. **ABA Formal Opinion 17-477R.**
1. 2017 updates address changes in technology from Formal Opinion 99-413, in which the ABA concluded: "Lawyers have a reasonable expectation of privacy in communications made by all forms of e-mail, including unencrypted email sent on the Internet, despite some risk of interception and disclosure. It therefore follows that its use is consistent with the duty under Rule 1.6 to use reasonable means to maintain the confidentiality of information relating to a client's representation."[27] Formal Opinion 99-413 was a response to significant question about new technology and speculation by some[28] that privilege would not apply to email.
2. Updates in the 2017 Opinion indicate that the appropriate safeguards need a fact-specific analysis, and "particularly strong protective measures, like encryption, are warranted in some circumstances."[29]

iii. What happens when a lawyer mistakenly sending documents to the other side?
1. Negligence of one side should not disable the effective advocacy of the other side.
2. But, ABA view is that receiver of an inadvertent email must notify the sender, and is suggested (but not required) to refrain from examining materials and should comply with the requests for handling of the sender.
    a. ABA Model Rule 4.4(b) "A lawyer who receives a document or electronically stored information relating to the representation of the lawyer's client and knows or reasonably should know that the document or electronically stored information was inadvertently sent shall promptly notify the sender."[30]
    b. ABA has withdrawn prior guidance imposing further obligations on the recipient.

e. Permissibility of using metadata

i. States vary dramatically in the ethics of metadata. Some state Bars have opined that is it always unethical to review metadata. Others have indicated that produced metadata is ok to review, but metadata mining is unethical. Still others have opined that metadata should not be reviewed unless it is determined it wasn't sent inadvertently. Be sure to understand the rules in your jurisdiction before any metadata review is initiated.

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[27] ABA Comm. on Ethics and Profile Responsibility, Formal Op. 99-413, at 11 (1999).
[28] See, Lucy Schlauch Leonard, *The High-Tech Legal Practice: Attorney Client Communications and the Internet*, 69 U. Colo. L. Rev 851 (1998).
[29] ABA Comm. on Ethics and Prof'l Responsibility, Formal Op. 17-477R, at 5 (2017).
[30] ABA Model Rules of Professional Responsibility, Rule 4.4 (2016).

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ii. Consider carefully ethical responsibilities for delivering metadata inadvertently.

f. **Privilege in the context of experts**—impact of providing confidential information to experts
    i. Conversations and emails including third parties can easily lose privilege
        1. investment bankers
        2. consultants
    ii. Counsel may engage the expert and refer to all correspondence and documents as "work product"
    iii. Consider calibrating the level of environmental diligence to be conducted by consultant. Materiality level? Written reports? Verbal only? Keep environmental diligence separate from full diligence report.

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ADDRESSING ETHICAL ISSUES IN TRANSACTIONAL DUE DILIGENCE AND NEGOTIATIONS

ROCKY MOUNTAIN MINERAL LAW FOUNDATION CONFERENCE ON AIR QUALITY ISSUES AFFECTING OIL, GAS, AND MINING DEVELOPMENT AND OPERATIONS

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AGENDA

- Ground Rules – Balancing Confidentiality with Honesty and Public Interests
- Negotiations
- Crime or Fraud by Clients
- Acting in a Dual Capacity
- Attorney-Client Privilege, Work Product and Metadata

2

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GROUND RULES – RULE 1.6

ABA Model Rules of Professional Conduct Rule 1.6

- "A lawyer shall not reveal information relating to the representation of a client unless the client gives informed consent, the disclosure is impliedly authorized in order to carry out the representation, or the disclosure is permitted by paragraph (b)"

- Comment 6: "Paragraph (b)(1) recognizes the overriding value of life and physical integrity and permits disclosure reasonably necessary to prevent reasonably certain death or substantial bodily harm. Such harm is reasonably certain to occur if it will be suffered imminently or if there is a present and substantial threat that a person will suffer such harm at a later date if the lawyer fails to take action necessary to eliminate the threat."

3

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GROUND RULES – RULE 4.1

ABA Model Rules of Professional Conduct Rule 4.1

- Truthfulness in Statements to Others. " In the course of representing a client a lawyer shall not knowingly: (a) make a false statement of material fact or law to a third person; or (b) fail to disclose a material fact to a third person when disclosure is necessary to avoid assisting a criminal or fraudulent act by a client, unless disclosure is prohibited by Rule 1.6."

4

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GROUND RULES – OTHER MODEL RULES GUIDANCE

- "As negotiator, a lawyer seeks a result advantageous to the client but consistent with requirements of honest dealings with others."

- Comment 1 to Model Rule 4.1:
  - "While a lawyer must be truthful when dealing with others on a client's behalf, lawyers have no affirmative duty to inform an opposing party of relevant facts. A misrepresentation/false statement may occur where (1) a lawyer incorporates or affirms a statement of another person that the lawyer knows is false; or (2) a lawyer makes a partially true but misleading statement or omission that is the equivalent of an affirmative false statement."

5

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DUTY OF DISCLOSURE

- Counterparties
  - Rule 1.6 vs. Rule 4.1
- Government / Regulators
  - Consider “crime/fraud” exception
  - Comment 12 to Rule 1.6 regarding consideration of other laws that could require disclosure
- Within Corporate Client
  - Disclosures within the corporate client
  - Conflicts within the organization
  - Sarbanes-Oxley obligations

6

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DISCLOSURES

HYPOTHETICAL

Dean represents Energy Company ("EC") in connection with a sale of oil and gas assets. EC has covered up a large leak from a well by covering with fresh soil. EC expressly denies the existence of the leaks when asked about it by the prospective purchaser. The leaks may or may not have contaminated drinking water of a nearby town. Dean learns of the leak in connection with the due diligence process.

7

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DISCLOSURES

HYPOTHETICAL An engineer employee of EC who has been blamed internally for the leaking well seeks Dean's counsel, claiming that EC has insufficient standards for the construction of wells.

8

NEGOTIATIONS

- Statements of fact vs. opinions
- Puffery vs. Misrepresentations
  - Puffing = outrageous generalized statements, not specific, exaggerated so as to preclude reliance by other party.
  - The more particular/ less outrageous, the more likely to be considered misrepresentations.
- Duty to correct errors
- Omission as misrepresentation
- Implied authorization to make disclosures

9

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HYPOTHETICAL

Joan representing Big Oil ("BO") in connection with the sale of an oil field to EC. EC is the only company that has expressed interest in purchasing the oil field. Hoping to get a higher price for the oil field, Joan tells EC's lawyer that her client has discovered a new oil reservoir in the field, though this discovery has yet to actually be confirmed. Joan also mentions that she believes that there will be a significant amount of interest in the field and that she expects a number of other offers, though there is no reason for her to believe that this is so. When EC asks him what the lowest price her client would accept for the field is, Joan says $100 million, even though her client has authorized a sale for $75 million. She also adds that acquiring the field for that price would be a "real steal."

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CRIME OR FRAUD BY CLIENT

ABA Model Rule 1.2(d):

"A lawyer shall not counsel a client to engage, or assist a client, in conduct that the lawyer knows is criminal or fraudulent, but a lawyer may discuss the legal consequences of any proposed course of conduct with a client and may counsel or assist a client to make a good faith effort to determine the validity, scope, meaning or application of the law."

11

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CRIME OR FRAUD BY CLIENT

Comments to Rule1.2(d):

- "Paragraph (d) . . . does not preclude the lawyer from giving an honest opinion about the actual consequences that appear likely to result from a client's conduct. Nor does the fact that a client uses advice in a course of action that is criminal or fraudulent itself make a lawyer a party to the course of action. There is a critical distinction between presenting an analysis of legal aspects of questionable conduct and recommending the means by which a crime or fraud might be committed with impunity."

- ""When the client's course of action has already begun and is continuing, the lawyer's responsibility is especially delicate. The lawyer is required to avoid assisting the client, for example, by drafting or delivering documents that the lawyer knows are fraudulent or by suggesting how the wrongdoing might be concealed. A lawyer may not continue assisting a client in conduct that the lawyer originally supposed was legally proper but then discovers is criminal or fraudulent. The lawyer must, therefore, withdraw from the representation of the client in the matter. . . . In some cases, withdrawal alone might be insufficient. It may be necessary for the lawyer to give notice of the fact of withdrawal and to disaffirm any opinion, document, affirmation or the like."

12

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CRIME OR FRAUD BY CLIENT

HYPOTHETICAL EC's general counsel ("GC") wants to discuss EC's options related to the large leak with Dean. EC had notice obligations related to the leak, with which it failed to comply.

13

CRIME OR FRAUD BY CLIENT

If lawyer knows of fraud, ethical obligations may require reporting.

- Reckless disregard for the truth
- Duty of candor
- Misrepresentation or concealment
- Ongoing fraud
- Whistleblower / Sarbanes-Oxley
- Interests of corporate client (vs. management)

14

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ACTING IN A DUAL CAPACITY

Model Rules Guidance:

- "A lawyer, as a member of the legal profession, is a representative of clients, an officer of the legal system and a public citizen having special responsibility for the quality of justice."
- "A lawyer's conduct should conform to the requirements of the law, both in professional service to clients and in the lawyer's business and personal affairs."
- "It is professional misconduct for a lawyer to (a) violate or attempt to violate the Rules of Professional Conduct, knowingly assist or induce another to do so, or do so through the acts of another;"

15

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ACTING IN A DUAL CAPACITY

HYPOTHETICAL

Dean is representing EC in connection with the purchase of a midstream facility. EC's in-house lawyer on the deal is Liz, who is also acting as the lead business development person on the deal. An environmental issue has arisen and Seller's lawyer doesn't seem to want to budge on the issue. Liz wants to have a call with the BD person for Seller – "business to business, without lawyers" – to hash out the indemnity terms with regard to this issue.

16

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ATTORNEY-CLIENT PRIVILEGE

Creating Privilege:

- The asserted holder of the privilege is (or sought to become) a client;
- The person to whom communication was made is a member of the bar (or a subordinate to a member of the bar) and is acting as an attorney for purposes of these communications; and
- The communication was for the purpose of securing legal advice.

ABA Model Rule 1.6(c):

- A lawyer shall make reasonable efforts to prevent the inadvertent or unauthorized disclosure of, or unauthorized access to, information relating to the representation of a client.

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WORK PRODUCT

Doctrine protects materials prepared with an eye toward the realistic possibility of impending litigation

- Materials need not be prepared by a lawyer (e.g. expert reports)

18

MAINTAINING OR LOSING PRIVILEGE

- Most commonly:
  - Communication was made in the presence of individuals who were neither the lawyer nor the client, or
  - Communication was disclosed to such persons.

19

MAINTAINING OR LOSING PRIVILEGE

- Careless use of email and other technology by both clients and attorneys can result in a loss of confidentiality and other privileges.
  - clients using employer work email systems, shared computer systems (hotel, library), shared laptop or smartphone.
  - careless, inadequate or rarely changed passwords
  - inadvertent delivery of email to wrong addressee
- Model Rules and most state rules impose obligations on lawyers:
  - "To maintain the requisite knowledge and skill, a lawyer should keep abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology, engage in continuing study and education and comply with all continuing legal education requirements to which the lawyer is subject."
- Appropriate safeguards are dependent on the facts

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INADVERTENT EMAILS AND PRIVILEGE

- Negligence of one side should not disable the effective advocacy of the other side
- ABA view is that recipient of inadvertently sent email should:
  - Notify sender
  - Refrain (potentially) from examining materials

21

PRIVILEGE AND EMAIL

HYPOTHETICAL

In connection with the potential deal between BO and EC, Dean unintentionally emailed Joan a document intended for EC's general counsel describing the status of negotiations on a particular issue, and which describes EC's "walk away" positions. Joan immediately makes Dean aware of the misdirected email. There is a call in an hour to discuss the issue.

22

METADATA

- Metadata use and mining ethics vary dramatically in various jurisdictions.
- Technology competence rules

23

HYPOTHETICAL

Dean (who apparently needs lessons on technology) sends a revised version of a purchase agreement to Joan. Joan's associate informs Joan that there are hidden imbedded comments in the document that contain notes to and from Dean to EC. May Joan review them? May Joan discuss them with BO?

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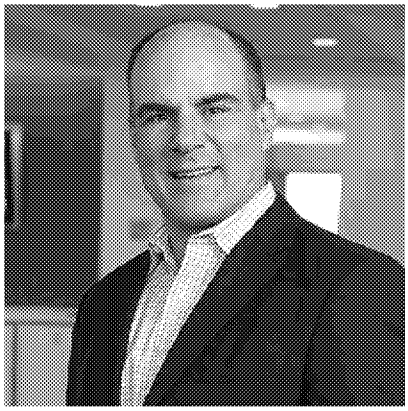

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The Upstream Oil and Gas Storage Tank Enforcement Initiative: New Design, Maintenance, and Operational Issues

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THE UPSTREAM OIL AND GAS STORAGE TANK ENFORCEMENT INITIATIVE: NEW DESIGN, MAINTENANCE, AND OPERATIONAL ISSUES

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I. Introduction

On April 22, 2015, the United States Environmental Protection Agency ("EPA") and the State of Colorado ("Colorado") announced a "first-of-its-kind settlement" with Noble Energy, Inc. for fieldwide violations of Colorado crude oil and condensate storage tank regulations in the Denver-Julesburg Basin and the Denver Front Range Nonattainment Area ("DFR/NAA").[4] Specifically, EPA and Colorado cited to investigations that "found VOC emissions coming from storage tanks, primarily due to undersized vapor control systems."[5] Covering more than 3,400 tank batteries (Noble's entire field of controlled condensate storage tanks), the settlement resulted in notable penalty numbers: $4.95M in civil penalties, plus $4.00M in supplemental environmental projects, and $4.50M to fund environmental mitigation projects.[6] Injunctive relief included an engineering review of the capacity of the tank systems, as well as significant operational, maintenance, and other monitoring requirements.

Later that day, former Assistant Administrator of the Office of Enforcement and Compliance Assurance ("OECA") Cynthia Giles told Law 360 that "[w]e think some of the innovative ideas that are included in this agreement are things that other companies will be interested in. And it's certainly the case that Noble is not the only company, and this basin is not the only basin, that has this issue."[7] As foreshadowed, following the Noble Consent Decree,[8] EPA spearheaded additional, similar enforcement in Colorado and North Dakota. Since the Noble Consent Decree, EPA has executed settlements with PDC Energy, Inc. ("PDC Consent Decree") in Colorado and with Slawson Exploration Company, Inc. ("Slawson Consent Decree") in North Dakota. In parallel, both Colorado and North Dakota have pursued state-only enforcement, but with very different strategies (described in further detail).

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[2] Sarah Bartlett is a Sr. EHS Manager at PDC Energy, Inc. where she oversees environmental programs, primarily air quality permitting and compliance.
[3] Adam Meyer is a Sr. Mechanical Engineer at ZAP Engineering & Construction Services, Inc. where he has worked with numerous clients to design and evaluate oil and gas production facilities.
[4] "Noble Energy [sic] Inc. agrees to make system upgrades and fund projects to reduce air pollution in Colorado," U.S. EPA (Apr. 22, 2015), https://www.epa.gov/enforcement (search "Noble press release")
[5] *Id.*
[6] *Id.*
[7] Juan Carlos Rodriguez, "EPA Puts Upstream Sector on Notice with $73M Noble Deal," Law360 (April 22, 2015, 8:58 PM EDT), https://www.law360.com/articles (search "EPA puts upstream sector on notice")
[8] Consent Decree, United States v. Noble Energy, Inc., Civil Action No. 1:15-cv-841 (D. Colo. April 22 2015)

The views expressed in this paper are solely those of the author (or authors).
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This article will discuss:

1. The regulatory requirements at issue in these settlement agreements.

2. The content of settlement agreements addressing storage tanks in the last three years, including the various enforcement approaches taken by the EPA, Colorado, and North Dakota.

3. The engineering design, operational, and maintenance issues associated with storage tanks.

4. The legal and policy issues arising from these enforcement initiatives.

This ongoing enforcement initiative is in constant flux. While this paper is accurate and updated as of the date of the authors' submission, there could be changes to any portion of this document by the time of presentation and beyond.

II. Regulatory Requirements for Operating Condensate Storage Tanks in Colorado and North Dakota

a. The Clean Air Act, State Implementation Plans, and Federal Enforceability

The Clean Air Act ("CAA") imposes a mandatory duty on EPA to identify and list air pollutants found to be emitted by "numerous and diverse" mobile or stationary sources and that "cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare."[9] EPA is required to promulgate a primary and secondary National Ambient Air Quality Standard ("NAAQS") for each air pollutant for which air quality criteria have been issued (i.e., "criteria pollutants").[10] The states are charged with "primary responsibility for assuring" that air quality within the state meets the NAAQS.[11]

The CAA requires states to adopt and submit to EPA a State Implementation Plan ("SIP") designed to meet this state responsibility.[12] A SIP is required to meet certain statutory criteria, but the states have "wide discretion in formulating [their] plan[s]."[13] Some basic elements that must be included in a SIP include, for example, enforceable emission limitations and other control techniques, enforcement measures, and a stationary source permitting program. The EPA may disapprove a SIP revision only if "the revision would interfere with any applicable requirement concerning attainment" of the NAAQS "or any other applicable requirement" of the Act.[14] EPA may issue a Federal Implementation Plan ("FIP") if a state fails to submit a SIP, or if

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[9] 42 U.S.C. § 7408(a)(1)(A)-(B); Natural Res. Def. Council, Inc. v. Train, 545 F.2d 320, 325-28 (2d Cir. 1976) (finding that once EPA determines an air pollutant meets the criteria set forth in CAA § 108(a)(1)(A)-(B), the duty to list that air pollutant is mandatory).
[10] 42 U.S.C. § 7409(a)(1)(A).
[11] 42 U.S.C. § 7407(a); *see also* 42 U.S.C. § 7401(a)(3) ("air pollution prevention . . . and air pollution control at its source is the primary responsibility of States and local governments[.]").
[12] 42 U.S.C. §§ 7407(a), 7410.
[13] Union Elec. Co. v. EPA, 427 U.S. 246, 250 (1976); 42 U.S.C. § 7410.
[14] 42 U.S.C. § 7410(l).

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EPA finds the SIP submittal to be inadequate.[15] If EPA approves the SIP, it is added to the Code of Federal Regulations and becomes federal law.[16] EPA has the power to "overfile" and bring its own civil action to enforce state air quality regulations that are included within the State Implementation Plan.[17] Courts have interpreted EPA's authority to overfile very broadly, and have upheld EPA's right to seek enforcement even where a state has previously, or is simultaneously, enforcing its own regulations.[18]

b. Applicable Colorado Regulatory Requirements

i. AQCC Regulation No. 7, § XII (SIP-Approved)

EPA and the State of Colorado have leaned on AQCC Regulation No. 7, § XII.C.1.b. ("'Maximum Extent Practicable' or 'MEP' Standard") for their combined or respective storage tank enforcement actions. The MEP Standard states: "All condensate collection, storage, processing and handling operations, regardless of size, shall be designed, operated and maintained so as to minimize leakage of volatile organic compounds to the atmosphere to the maximum extent practicable."[19] The MEP Standard is part of Colorado's approved SIP,[20] meaning EPA has concurrent jurisdiction with the State of Colorado to enforce state, SIP-approved requirements (as discussed immediately above).

Regulation No. 7 does not explicitly define what "designed, operated, and maintained" means in this context; rather, the MEP Standard is a general duty standard, obligating operators to comply, but without prescription.[21] Based on enforcement, however, it appears EPA and Colorado believe that, at a minimum, the "designed" piece of the MEP Standard requires: (1)

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[15] 42 U.S.C. § 7410(c)(1).

[16] Sierra Club v. Korleski, 681 F.3d 342, 343 (6th Cir. 2012).

[17] *See* 42 U.S.C. § 7413(a)(1) ("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 . . . the Administrator may . . . issue an order . . . issue an administrative penalty order . . . or . . . bring a civil action.").

[18] *See e.g.,* U.S. v. LTV Steel Co., Inc., 118 F.Supp.2d 827 (N.D. Ohio 2000) (Finding that the explicit text of the CAA contemplated broad overfiling of powers, regardless of corresponding enforcement by a state or local entity with delegated authority); *see also* U.S. v. SCM Corp., 615 F. Supp. 411 (D. Md. 1985) (There is "no unfairness to the defendant in the Court's decision that this case may proceed despite defendant's entering into a consent order with the state agency. In a federal system, each person and entity is subject to simultaneous regulation by state and national authority. The single act of an individual frequently subjects that person to separate and differing legal consequences at the hands of state and national sovereigns.")

[19] AQCC Regulation No. 7, § XII.C.1.b.

[20] SIP-Approved Regulation No. 7, § XII.D.2.

[21] Regulation No. 7's Statement of Basis and Purpose (§ XX) does indicate that Colorado intended an operator's Storage Tank Emissions Management (STEM) Plan, required by § XVII, include "[a]n analysis of the engineering design of the storage tank and air pollution control equipment, and where applicable, the technological or operational methods employed to prevent venting . . . [and a] procedure to update the STEM plan when capture performance is not adequate, [or when] the STEM design is not operating properly." But note the provision to which this portion of the SBAP references—§ XVII—is only enforceable by Colorado and not by EPA. Nonetheless, the Noble Consent Decree, among others, appear to wrap in principles of "engineering" design from § XVII into the definition of "design" for the MEP Standard. Regulation No. 7 has no SIP-Approved provision that "design" includes an engineering review of storage tanks or their vapor control systems.

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that a storage tank's vapor control system must have sufficient capacity to accommodate peak instantaneous vapor flow into the storage tanks—i.e., modeled or actual tank pressures must not exceed the thief hatch and/or pressure relief valve ("PRV") settings during normal operations; and (2) an operator must conduct an engineering/design analysis to ensure such capacity. Specifically, EPA and Colorado included the following claims in the Complaint that accompanied the Noble Consent Decree:

> 66. Noble failed to do a formal engineering design analysis to determine if the Vapor Control Systems at one or more of the tank batteries identified on Appendix A had the capacity to route all condensate tank emissions, from the peak flow of flashing, working, and breathing losses, to an emissions control device.
>
> 67. The Vapor Control Systems used by Noble to route vapors from one or more of the tank batteries identified on Appendix A to combustors to control VOC emissions do not have sufficient carrying capacity to convey all of the condensate tank vapors to combustors under optimum conditions, when the vent lines are unobstructed and not over-pressurized by natural gas being carried through to condensate storage tanks and associated Vapor Control Systems.[22]

In addition, EPA and Colorado have—through enforcement—developed an expansive definition of what "operated" and "maintained" means for storage tanks. Specifically, in their Complaint against PDC Energy, Inc.,[23] EPA and Colorado identified failure to perform discrete maintenance and operational activities as violating the undefined "operated and maintained" portion of the MEP Standard in the Compliant that accompanied the PDC Consent Decree,[24] claiming:

> 73. PDC's operation and maintenance of Vapor Control Systems . . . failed to minimize emissions to the maximum extent practicable due, among other things, to one or more of the following reasons:
>
> > a. Not promptly responding to emissions observations and taking appropriate corrective action to minimize the duration and quantity of emissions;
> >
> > b. Not taking measures to minimize the occurrence or recurrence of preventable emissions from Vapor Control Systems;
> >
> > c. Not promptly cleaning oil stains on condensate storage tanks caused by vapors emanating from PRVs and thief hatches and indicative of tank

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[22] Complaint, United States. v. Noble Energy, Inc., Case No. 1:15-cv-00841, at ¶¶ 66-67 (D. Colo. April 22, 2015); *see also* Noble Consent Decree, ¶¶ 8-13 (requiring engineering evaluation and possible modification and verification of vapor control systems).

[23] Complaint, United States v. PDC Energy, Inc., Case No. 1:17-cv-1552 (D. Colo. June 26, 2017) ("PDC Complaint").

[24] Consent Decree, United States v. PDC Energy, Inc., Case No. 1:17-cv-1552 (D. Colo. October 31, 2017).

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vapor emissions so that frequency and timing of emissions could be assessed;

d. Not keeping and regularly reviewing maintenance records to track recurrent or systemic issues in order to implement proactive measures to replace or upgrade system components to prevent emissions from occurring; and

e. Not ensuring that all vent lines on Vapor Control Systems have an adequate slope to drain all liquids to adequately sized "drip pots," not evaluating the frequency of liquids buildup impairing the vapor carrying capacity of the vent lines and not establishing a site-specific line blow-out maintenance schedule, and/or installing line pressure gauges to monitor obstructions in the vent lines and promptly clearing the lines when obstructed.[25]

Many of the more discrete items identified in Paragraph 73 of the United States' Complaint against PDC are not explicitly required by Regulation No. 7. For example, take the requirement to "keep and regularly review maintenance records to track recurrent systematic issues."[26] While, in practice, many operators regularly review the performance of their systems—both to ensure compliance with air quality requirements but also to ensure the facility is operating efficiently for production purposes—the expectation that this review be separately recorded and kept for future review was not communicated prior to the initiation of these enforcement actions. But the expectation is clear now, after the fact: if an operator reviews the overall health of a tank system to determine if it is being maintained properly, and that review is not recorded, it appears the governments assume this review did not occur.

ii. AQCC Regulation No. 7, § XVII (State-Only)

The State of Colorado also relies on AQCC Regulation No. 7, § XVII.C.2. ("No Venting Standard") in storage tank enforcement. Note that because this provision lives in the state-only provisions of Regulation No. 7, and not in Colorado's SIP, EPA does not have authority to enforce this requirement. The No Venting Standard states:

> Owners or operators of storage tanks must route all hydrocarbon emissions to air pollution control equipment, and must operate without venting hydrocarbon emissions from the thief hatch (or other access point to the tank) or pressure relief device during normal operation, unless venting is reasonably required for maintenance, gauging, or safety of personnel and equipment. [27]

Previously, there was no defined distinction between "venting" (which most attribute to over-pressurization of the storage tank) and "leaking" (which typically results from maintenance

[25] PDC Complaint, supra note 23, at ¶ 73.
[26] *Id.*
[27] AQCC Regulation No. 7, § XVII.C.2.

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or other operational-related issues, such as loose bolts or worn equipment).[28] Very recently, Regulation No. 7, § XVII was revised to specifically define "venting," giving clarity to this distinction. This definition now reads:

> Venting is emissions from a controlled storage tank thief hatch, pressure relief device, or other access point to the storage tank, which . . . [a]re primarily the result of over-pressurization, whether related to design, operation, or maintenance; or [a]re the result of an open, unlatched, or visibly unseated pressure relief device (e.g., thief hatch or pressure relief valve), an open vent line, or an unintended opening in the storage tank (e.g., crack or hole).[29]

As such, "venting"—other than that venting caused by an unlatched pressure relief device ("PRD") such as a thief hatch or PRV—will only occur when a storage tank's vapor control system over-pressurizes[30] and that over-pressurization is not the result of some malfunction.[31]

c. Applicable Federal and North Dakota Regulatory Requirements

i. North Dakota Air Pollution Control Rules § 33-15-07-02

EPA and the State of North Dakota relied on the following SIP-Approved North Dakota requirement to bring storage tank enforcement actions in North Dakota:

> No person may cause or permit the emission of organic compounds gases and vapors, except from an emergency vapor blowdown system or emergency relief system, unless these gases and vapors are burned by flares, or an equally effective control device as approved by the department.[32]

Notice that North Dakota's provision lacks the "design, operate, and maintain" requirement established by the MEP Standard. Rather, EPA and North Dakota interpreted the requirement to prevent "emission of organic compounds gases and vapors" from a storage tank unless the gases are "burned by flares, or an equally effective control device" as requiring that

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[28] AQCC Regulation No. 7, § XVII.A (2014).
[29] AQCC Regulation No. 7, § XVII.C.2.a.
[30] See AQCC Regulation No. 7, § XX (Statement of Basis and Purpose: Operating without venting clarification (Section XVII.C.2.a)("While storage tanks may also have leaks, as the Commission recognizes by including thief hatches or other openings on storage tanks in the definition of component, the Commission now further clarifies the "venting" standard by specifying that "venting" is emissions that are primarily the result of over-pressurization or that are from an open or visibly unseated pressure relief device (e.g., thief hatch).")
[31] See AQCC Regulation No. 7, § XX (Statement of Basis and Purpose: Venting vs. Leaking (Sections XVII.B., XVII.C., and XVII.F.)("The Commission believes that emissions caused by over pressurization of oil and gas equipment are foreseeable . . . The Commission recognizes that pressure release valves and other devices are meant to operate as safety devices and that venting for safety purposes may occur due to sudden, unavoidable equipment failures or surges beyond normal or usual activities that could not have been reasonably foreseeable, avoided, or planned . . . However, inadequate design of a storage tank emissions capture system is not a legitimate reason for venting.")
[32] *See* Consent Decree, United States v. Slawson, Civil Case No. 1:16-cv-00413, at 3 (December 1, 2016)("Slawson Consent Decree").

the storage tank's vapor control system be "adequately designed" to accommodate those vapors without uncontrolled emissions.[33]

ii. Federal Implementation Plan, 40 C.F.R. § 49, Subpart K

Many oil and gas facilities in North Dakota are operated on Indian lands, and specifically, various companies operate on the Fort Berthold Indian Reservation.[34] For such facilities, the State of North Dakota does not have jurisdiction; only the EPA can enforce federal regulations developed pursuant to the Federal Implementation Plan[35] for that reservation (assuming the Tribe has not elected to implement its own air quality requirements through a Tribal Implementation Plan).[36] For those facilities, EPA relies on certain portions of the FIP, including the requirements to:

> (1) Operate and maintain all liquid and gas collection, storage, processing and handling operations, regardless of size, so as to minimize leakage of natural gas emissions to the atmosphere ("Minimize Leakage Standard")[37]; and

Although not written into § 49.4164 (or other FIP provisions), EPA maintains that operators are required to adequately design their facilities (i.e., conduct a "design analysis") to ensure that those facilities minimize emissions.[38] In addition, EPA relies on the following provision of the FIP:

> (2) Within ninety (90) days of the first date of production from any oil and natural gas well…[r]oute all standing, working, breathing, and flashing losses from the produced oil storage tanks and any produced water storage tank interconnected with the produced oil storage tanks through a closed-vent system to: (i) An operating system designed to recover and inject the natural gas emissions into a natural gas gathering pipeline system for sale or other beneficial purpose; or (ii) An enclosed combustor or utility flare capable of reducing the mass content of VOC in the natural gas emissions vented to the device by at least 98.0 percent or greater ("Route All Losses Standard").[39]

Unlike the North Dakota regulation cited above, the cited FIP does address the "size" of the "liquid and gas collection" system, and as such, EPA relies on this provision to assert that a storage tank must be adequately designed to accommodate those liquids and gases.[40] In addition, EPA relies on the requirement that "all standing, working, breathing, and flashing losses" from

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[33] *Id.*
[34] *Id.* at 1.
[35] *See* 78 Fed. Reg. 17,836, 17,837 (March 22, 2013).
[36] "Basic Information About Air Quality FIPs," EPA.gov (last visited January 28, 2018), https://www.epa.gov/air-quality-implementation-plans (Search "Air Quality FIPs")
[37] 40 C.F.R. § 49.4164(a)
[38] Slawson Consent Decree, supra note 30, at 2.
[39] 40 C.F.R. § 49.4164(d)
[40] Slawson Consent Decree, supra note 30, at 2.

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the oil storage tanks must be routed to a closed-vent system.[41] According to EPA, an under-designed facility cannot adequately handle vapor flows and therefore vapors are vented through the thief hatch rather than routed to a pipeline, flare, or combustion device.[42] As such, based on EPA's and North Dakota's interpretation, an operator is required to determine which of its facilities are inadequately designed to ensure all vapors are routed to the flare/combustor.

III. A History of Storage Tank Settlements and Preceding Agency Contact: Where We've Been and Where We're Going

a. *The Canary in the Coal Mine: EPA Actions Foreshadowing Enforcement*

i. EPA's "Next Generation Compliance" Program

On January 8, 2015, EPA's OECA issued a memorandum entitled "Use of Next Generation Compliance Tools in Civil Enforcement Settlements." ("Next Gen Compliance Memo")[43] The Next Gen Compliance Memo explained the initiative as "increase[ing] compliance with environmental regulations by using advances in pollutant monitoring and information technology combined with a focus on designing more effective regulations and permits to reduce pollution." EPA identifies five interconnected components for "mov[ing] forward toward higher compliance and more environmental benefits." Those five components include: regulation and permit design, transparency, electronic reporting, advanced monitoring, and innovative enforcement.[44] Perhaps the most relevant in this case is "innovative enforcement", which involves using "data analytics and targeting," as a means to "achieve more widespread compliance" and incorporate "Next Gen compliance tools in enforcement settlements." Specifically, it appears EPA utilized its existing statutory authority under 42 U.S.C. § 7414 to use "data analytics" and "target" operators for compliance reviews.

ii. CAA § 114 Requests for Information

EPA has broad authority under the CAA § 114 to request any information it might require to determine a stationary source's compliance with the CAA and its implementing regulations, or in furtherance of developing future regulations.[45] In the case of storage tank enforcement in Colorado and North Dakota, receipt of a CAA § 114 request for storage tank-related information meant enforcement was on its way. Noble received its CAA § 114 request in August 2013[46] and executed its consent decree in April 2015.[47] Following the Noble Consent Decree, operators in Colorado and North Dakota received CAA § 114 requests for storage tanks,

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[41] *Id.*
[42] *Id.*
[43] "Use of Next Generation Compliance Tools in Civil Enforcement Settlements," EPA.gov (January 7, 2015), https://www.epa.gov/sites/production (Search "Next Gen Compliance")
[44] "Next Generation Compliance," EPA.gov (last updated February 14, 2017), https://www.epa.gov/compliance (Search "Next Generation Compliance")
[45] 42 U.S.C. § 7414(a).
[46] *See* Noble Consent Decree, supra note 8, at 3.
[47] *See* Noble Press Release, supra note 4.

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kicking off enforcement discussions with both EPA and CDPHE or NDDH, respectively.[48] Those requests required operators submit information such as:

- Whether the operator had ever conducted, either prior to or after construction of a tank vapor capture system, a design analysis of the tank vapor capture system and control device;
- If no design analysis had been completed, operators were required to perform such analysis and provide the results;
- Equipment or operational information necessary for the EPA and CDPHE or NDDH to conduct their own analysis, such as piping & instrumentation diagrams, equipment information, oil and natural gas production volumes, etc.;
- Analytical sample results; and
- Documents supporting operation and maintenance activities (*e.g.*, SOPs, inspection results, training materials, etc.).[49]

Beginning in 2016, however, members of congress began questioning the EPA's motivations for utilizing their authority under CAA § 114, arguing that the EPA was effectively regulating existing sources without rulemaking through the Consent Decree process.[50] Indeed, as you'll see below, the injunctive relief discussed in the settlement context far exceeds any explicit (or, arguably, implicit) requirements in existing regulations, and has arguably cast the die for EPA's expectations on operating storage tanks in the future. This sort of targeted approach via the CAA § 114 has been viewed as just the sort of enforcement tactic contemplated by EPA in its Next Gen Compliance Memo.[51]

iii. <u>EPA's Compliance Alert on Storage Tanks</u>

Following the issuance of the Next Gen Compliance Memo and the various CAA § 114 requests described above, in September 2015, EPA issued a Compliance Alert identifying its interpretation of various storage tank design, operational, and maintenance requirements ("Compliance Alert").[52] In the Compliance Alert, EPA informed the public of what are (essentially) the fundamental issues underlying the Noble Consent Decree: that EPA has

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[48] PDC Consent Decree, supra note 23, at 3; Slawson Consent Decree, supra note 30, at 3.

[49] *See e.g.*, Clean Air Act § 114 Request for Information from EPA Region VIII to PDC Energy, Inc. (August 18, 2015) (on file with author).

[50] *See* "EPW GOP Fears 'Back-Door' Enforcement with EPA Oil & Gas Data Queries," InsideEPA.com (June 30, 2016) (Describing a Senate & Public Works Committee (EPW) meeting where Chairman Sen. James Inhofe (R-OK) had the following exchange with then Assistant Administrator of EPA's OECA: "We've heard from the oil and gas companies that these are used to pressure them to curb and monitor methane emissions before EPA has even issued a methane rule for the industry. Do you contend that these are not enforcement letters -- that they are, as you've said, informational letters?" he asked EPA enforcement chief Cynthia Giles. Giles, the sole witness at the hearing, answered that "section 114 letters are information gathering letters. They are not enforcement actions." Following this exchange, according to InsideEPA, Inhofe "argued that increased use of section 114 letters and other compliance tools against oil and gas operations appears to be a 'back-door effort' to regulate the sector even though EPA is still early in the process of investigating methane standards for existing sources."

[51] *Id.*

[52] "EPA Observes Air Emissions from Controlled Storage Vessels at Onshore Oil and Natural Gas Production Facilities," EPA.gov (last visited January 28, 2018), https://www.epa.gov/sites/production (Search "Oil and Gas Compliance Alert").

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observed emissions from undersized vapor control systems, and that operators should assess whether those systems are "design, sized, operated, and maintained such that emissions from storage vessels may be controlled in compliance with applicable federal and state regulations."[53] Notably, the Compliance Alert implies that some sort of engineering review or solution would be required to ensure adequate design of a vapor control system.[54] Importantly, the Noble CD, and the following Compliance Advisory, provided the first look to the regulated community on how exactly EPA would interpret the MEP Standard in Colorado, and presumably, other similar general duty clauses across the United States, as it related to storage tanks.

b. Enforcement in Colorado

i. United States v. Noble Energy, Inc.

As noted above, the Noble Consent Decree includes significant injunctive relief and basin-wide review of the design and maintenance of its storage tank fleet across the D-J Basin.[55] For each tank system listed in the Noble Consent Decree, Noble is required to evaluate the peak potential instantaneous vapor flow rate, determined via a modeling guideline, and compare this flow rate to the vapor control system capacity, determined via an engineering design standard.[56] If Noble finds that a tank system is not adequately designed based on this review, then Noble shall make modifications to the vapor control system accordingly.[57] Once the evaluation, and any necessary modification, of a tank system is complete, the tank system must be verified via an infrared (IR) camera inspection of the tank system.[58]

Maintenance required by injunctive relieve is comprised of three parts: an evaluation of PRVs and thief hatches, a directed inspection and preventative maintenance program, and periodic inspections and monitoring.[59] PRVs and thief hatches are to be inspected prior to performing the design evaluation and upgrades as necessary.[60] Noble was required to develop a directed inspection and preventative maintenance program, and use it to identify common system-wide inspection, preventative maintenance, and response procedures for tank systems.[61] Lastly, periodic inspections and monitoring involves regular IR camera inspections of tank systems and a limited timeframe to respond to emissions detected through these or other inspections.[62]

The settlement appears to incorporate EPA's focus on all four of the "Next Generation Compliance" technologies and operational practices:

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[53] *Id.*
[54] *Id.*
[55] Noble Consent Decree, supra note 8, at 1.
[56] *Id.* at ¶¶ 8-10.
[57] *Id.* at ¶ 11.
[58] *Id.* at ¶ 12.
[59] *Id.* at ¶¶ 15-17.
[60] *Id.* at ¶ 15.
[61] *Id.* at ¶ 16.
[62] *Id.* at ¶ 17.

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1. Advanced monitoring: installation of tank pressure monitors to continually monitor if he pressure within a tank system nears the PRV and thief hatch set points including requirements to respond to high readings.[63]
2. Independent third party verification: engagement of a third party to verify the accuracy of the design evaluation, ensure that tank system modifications were completed as identified, and conduct an IR Camera of the tank systems.[64]
3. Electronic reporting: much of the data required by the Noble Consent Decree is requested in electronic or spreadsheet form.[65]
4. Transparency of compliance data: Noble is required to provide certain reports or other compliance-related documents on its website.[66]

In addition to injunctive relief, EPA has sought "mitigation" projects from Noble Energy (among others subject to federal enforcement).[67] Mitigation activities are defined as actions carried out for the purpose of remedying, reducing, and/or offsetting harm caused by past or ongoing violations.[68] EPA takes the position that it is authorized—under the CAA and applicable case law—to seek and obtain relief in the form of mitigation in order to redress harms attributable to past or ongoing violations of the CAA (and other environmental statutes).[69] Noble Energy agreed to mitigation projects, including (but not limited to), automating tank gauging, installation of controls to control condensate tank truck loadout, retrofitting drill rig equipment, etc.[70]

ii. United States v. PDC Energy, Inc.

In August 2015, PDC Energy, Inc. received its CAA § 114 request.[71] On October 31, 2017, a consent decree was filed with the United States District Court for the District of Colorado (the PDC Consent Decree has not yet been approved by the court).[72] The injunctive relief related to tank system evaluation and design does not vary in a significant way from the Noble Consent Decree; rather, there is a marked difference between those consent decrees on operational and maintenance injunctive relief.

Specifically, the PDC Consent Decree more explicitly defines the directed inspection and preventative maintenance program ("DIPM"), and outlines weekly, quarterly, semi-annual, and annual operation and maintenance tasks on specific types of equipment.[73] A more detailed description of PDC's DIPM requirements, along with PDC's various design and monitoring

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[63] *Id.* at ¶ 21.
[64] *Id.* at ¶ 20.
[65] *Id* at ¶ 12(c)(Requiring submission of a "certification of completion report" that documents in a spreadsheet or database format certain design-related data for review by CDPHE and EPA).
[66] *Id.* at ¶ 20(f).
[67] *Id.* at Section VI (Environmental Mitigation Projects).
[68] *See, e.g.*, United States v. Cinergy Corp., 582 F. Supp. 2d 1055, 1066 (S.D. Ind. 2008); EPA Guidance, "Securing Mitigation as Injunctive Relief in Certain Civil Enforcement Settlements," at 2 (Nov. 14, 2012) ("EPA Mitigation § Guidance").
[69] *See* EPA Mitigation Guidance at 2, 5-6.
[70] Noble Consent Decree, supra note 8, at Appendix C.
[71] PDC Consent Decree, supra note 23, at 3.
[72] PDC Consent Decree, supra note 23.
[73] *Id.* at ¶ 13.

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requirements, provided in Section IV.b. below. Additionally, PDC agreed to certain mitigation projects, including installing control systems to control condensate tank truck loadout emissions and retrofit certain engines not already applicable to federal performance requirements with emission reduction technology (air fuel ratio controller and non-selective catalytic reduction).[74]

iii. State-Only Enforcement Through Compliance Advisories

Following the Next Gen Compliance Memo, the CAA § 114 requests, and the Compliance Alert, the Air Pollution Control Division ("Division") of the Colorado Department of Health (CDPHE) began issuing state-only Compliance Advisories, pursuant to the Division's authority in C.R.S. § 25-7-115.[75] Citing the MEP Standard, the Division alleged similar allegations to those found in the Noble Consent Decree.[76] The Division expanded the reach of their state enforcement beyond those operators who received CAA § 114 requests; in addition to issuing Compliance Advisories to operators responding to EPA's request for information, the Division also sent Compliance Advisories to several other operators in the D-J Basin.[77] One operator has executed a state-only Compliance Order on Consent—Bonanza Creek Energy Operating Company—which includes significant injunctive relief and mitigation projects.[78] While the state COCs do not directly mirror the Noble Consent Decree and PDC Consent Decree on storage tanks, many of the same concepts remain: the state COCs require an engineering analysis of operating storage tanks subject to Regulation No 7, extensive operational and maintenance requirements (including a requirement to conduct monthly IR camera inspections, which significantly exceeds Regulation No. 7's requirements for such inspections), and a limited time frame for identifying and correcting emissions.[79] Different from the federal Consent Decree process, the State of Colorado does not seek mitigation as a required form of injunctive relief; rather, operators may agree to perform mitigation projects to secure a reduced penalty. Examples of such projects include installing truck loadout controls, pressure monitoring, and installation of Lease Automated Custody Transfer (LACT) which permits operators to sell hydrocarbon liquids without the need to open PRDs and manually gauge tanks (the Bonanza Creek COC refers to these projects as "Emission Reduction Projects"). [80] As of the date of submission, the remaining operators dealing only with the State of Colorado are still engaged in negotiations with the Division on these issues.

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[74] *Id.* at Appendix B.
[75] See e.g., Compliance Advisory In The Matter of PDC Energy, Inc. from CPDHE, APCD, Case No. 2015-109 (Mailing Date December 10, 2015; Received December 16, 2015) (on file with author).
[76] *Id.*
[77] Cathy Proctor, *Colorado targets 152 oil and gas sites in pollution probe*, DENVER BUSINESS JOURNAL (last updated Jun. 22, 2016, 2:23 pm), https://www.bizjournals.com/denver/blog/earth_to_power (Search "Colorado Targets 152 Oil and Gas Sites")
[78] Compliance Order on Consent, In the Matter of Bonanza Creek Energy Operating Company, Case No. 2015-096 (October 3, 2017)("Bonanza Creek COC"). In addition, as of the date of submission, one other operator has executed a Compliance Order on Consent with the Division. *See* Compliance Order on Consent, In the Matter of Extraction Oil & Gas, Inc., Case No. 2015-082 (January 31, 2018).
[79] Bonanza Creek COC, supra note 76, at Section V (Compliance Requirements).
[80] *Id.* at ¶ 43.

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c. North Dakota Enforcement

i. United States v. Slawson Exploration Company, Inc.

In December 2014 (and prior to the execution of the Noble Consent Decree) Slawson Exploration Company, Inc. received its CAA § 114 request. On December 1, 2016, a consent decree was filed with the United States District Court for the District of North Dakota.[81] From a technical perspective, the injunctive relief does not vary in a significant way from the Noble and PDC Consent Decrees, though the Slawson Consent Decree does contain the more prescriptive DIPM requirements as seen in the PDC Consent Decree.[82]

ii. A Global Settlement Offer for Certain North Dakota Operators

Unlike the State of Colorado, who chose to pursue enforcement against individual operators, the North Dakota Department of Health agreed to allow oil and gas operators in North Dakota (but not on federal or Indian lands) to execute a globally-negotiated settlement, subject to minor, non-substantive differences (such as operator name and number of facilities).[83] Any operator willing to execute the global settlement agreement alongside the North Dakota Attorney General's Office, was permitted to file that binding settlement agreement with a North Dakota state court. Citing NDAPC § 33-15-07-02, the ND Consent Decrees included a stipulation of non-violation; specifically, that the settling party is controlling emissions, but may need to upgrade equipment to stay in compliance.[84] The ND Consent Decrees require:

- An initial inspection of sites with an infrared camera;
- A design analysis for any facilities requiring repairs made during the initial inspections;
- A no-less-than-monthly AVO inspections program;
- Periodic infrared camera inspections;
- Requirement to make a first-attempt at repair of any "evidence of organic compound emissions;" and
- Increase recordkeeping requirements.[85]

While less onerous than the State of Colorado COCs and federal consent decrees, to the authors' knowledge as of the date of publication, the authors are not aware of any objection by

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[81] *See* Complaint, United States v. Slawson Exploration Company, Inc., Case No. 1:16-cv-00413 (D.N.D. December 1, 2016).
[82] See Slawson Consent Decree, supra note 31, at ¶ 12.
[83] *See e.g.,* NDDH v. Whiting Oil and Gas Corporation, Case No. 08-2016-CV-02645 (October 18, 2016, N.D. Dist. Ct., Burleigh County); NDDH v. Marathon Oil Company, Case No. 08-2016-CV-03114 (December 2, 2016, N.D. Dist. Ct., Burleigh County); NDDH v. Burlington Resources Oil & Gas Company LP, Case No. 08-2016-CV-03115 (December 2, 2016, N.D. Dist. Ct., Burleigh County); NDDH v. Hunt Oil Company, Case No. 08-2016-CV-03135 (December 7, 2016, N.D. Dist. Ct., Burleigh County); NDDH v. SHD Oil and Gas, LLC, Case No. 08-2016-CV-03142 (December 7, 2016, N.D. Dist. Ct., Burleigh County).
[84] *Id.*
[85] *Id.*

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EPA as to the content of the ND Consent Decrees, nor any state enforcement for failure to comply with the executed settlement agreements.

IV. Designing, Operating, and Maintaining Storage Tanks: The Technical Side

As identified above, the operation of storage tanks has undergone a paradigm-shift with little public notice; operators have been forced to quickly address the situations raised in the settlement agreements described to the satisfaction of EPA and their respective state jurisdictions. From a technical perspective, this has propelled swift technological advancements, but has also raised serious implementation issues that may have unintended consequences. What exactly does the MEP Standard, for example, require from operators? In this section, the authors describe the various technical issues that arise when attempting to answer this question. For the sake of brevity, this section will focus on Colorado requirements.

a. Designing Storage Tank Vapor Control Systems

In Colorado, Operators are required to "design[] . . . storage tanks to minimize emissions of volatile organic chemicals to the maximum extent practicable."[86] In Colorado, an operator must conduct a formal engineering evaluation, or "Design Analysis" as referred to herein, to identify whether its storage tank vapor control systems have the capacity to accommodate peak vapor flow.[87] An engineering calculation is used to determine whether a facility vapor control system is adequately designed.[88] To perform a Design Analysis, an analyst (i.e., an engineer) must collect site data, have a detailed understanding of the site operations, and apply engineering concepts and calculations. The Design Analysis should cover all ranges of what is considered normal operations.[89] As is the case with any engineering evaluation, assumptions are needed where reasonable or where data is not available.[90] The end goal of the Design Analysis is to show, theoretically, under worst case normal operating conditions, that tank pressures will *not* reach the pressure relief device open set point (and cause venting).[91]

This section will discuss the major components of an oil production facility: what causes over-pressurization in tank systems, the types of Design Analysis, the process of performing a Design Analysis, the appropriate level of conservatism used in the Design Analysis, and determining pass/fail criteria. This section will also discuss the common misconceptions related to facility Design Analysis including the often cited "peak potential instantaneous vapor flowrate" or "PPIVFR", which is the rate of vapor entering a tank system,[92] and why it can be, and usually is, greater than the vapor control system capacity in an adequately designed system.

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[86] AQCC Regulation No. 7, § XII.c.1.b.
[87] PDC Consent Decree, supra note 23, at ¶¶ 8-10.
[88] PDC Consent Decree, supra note 23, at ¶ 8-9.
[89] ZAP Engineering and Construction Services, GUIDE TO OIL PRODUCTION FACILITY STORAGE TANK VAPOR CONTROL SYSTEM DESIGN 4 (2d ed. November 2017)("ZSTD-0009").
[90] *Id.* at 39.
[91] *Id.* at 65.
[92] *Id.* at 39.

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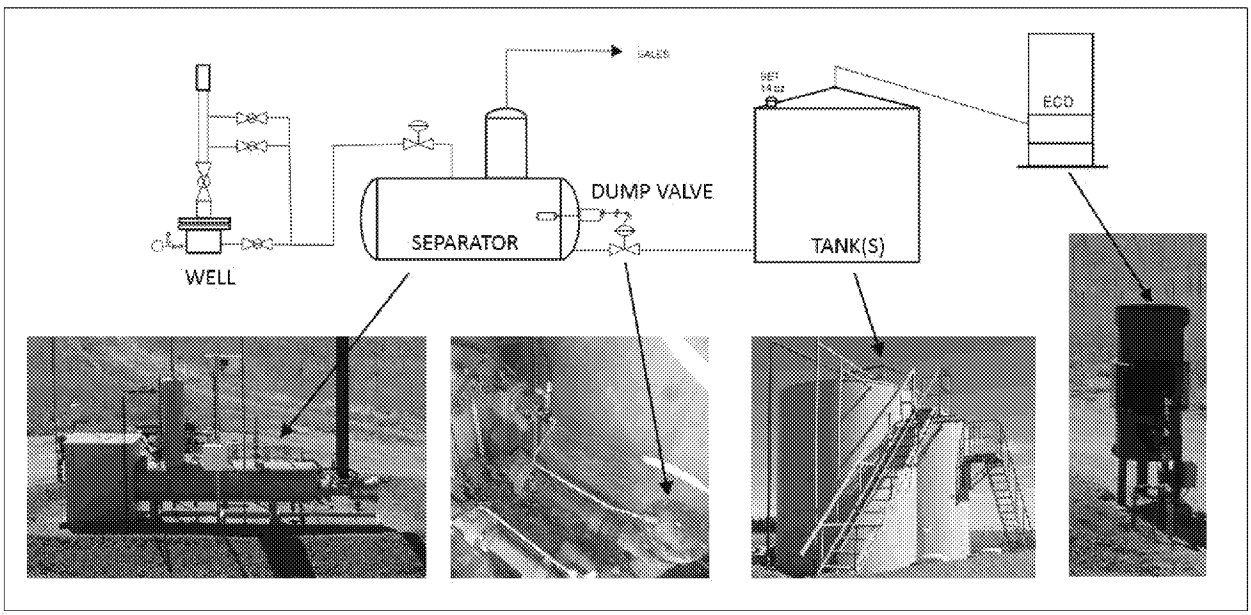
i. Overview of an Oil Production Facility

Generically, oil production facilities are comprised of wells, separation equipment, high pressure vapor/gas gathering lines, liquid storage (i.e., storage tanks), and low pressure vapor control system (tank vapor control system). The wells produce a production fluid made up of a combination of oil, water, and gas/vapor at high pressure. As these fluids come to the surface and migrate through the facility from the well to the tanks, the oil/water/vapor separate and reduce in pressure. Depressurization of the oil is key to ensuring stable product that can be easily transported and sold. A typical facility is shown below.

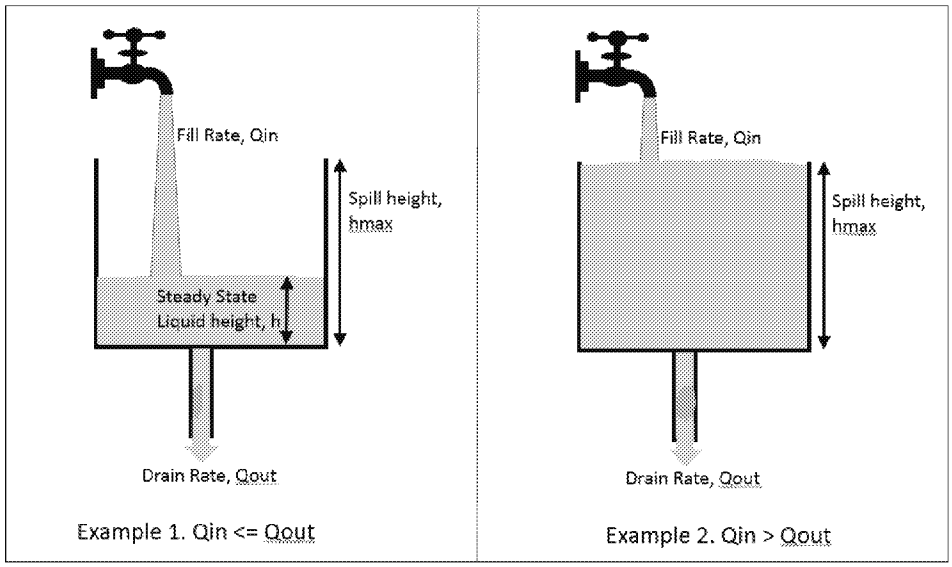


Depressurization of oil or any other liquid causes the release of vapors and gases that are entrained in the liquid. A good example is a can of soda. Off the shelf, the soda can is under pressure, which allows gas bubbles to remain trapped in the liquid (e.g., carbonation). When the tab is opened, the pressure is released and the pressurized gas bubbles are released from the liquid, which allows the gas to escape through the can opening into the atmosphere. Once all bubbles are out of the liquid, the pressure in the can is at zero pressure (i.e., atmospheric pressure). Oil at production facilities behaves in the same manner. Pressurized liquid from the well flows to the separator, where the pressure is reduced and gases come out of solution. Those gases are routed to the high pressure gas gathering system and sold. Similarly, the pressurized liquid in the separator flows to the tanks where the pressure is reduced again and vapor/gases come out of solution. However, instead of the gas being allowed to escape to the atmosphere (like the can of soda), the gas/vapor liberated from the liquid in the tank is routed to a vapor control system, where it is incinerated or repurposed.

ii. Cause of Tank Over-pressurization

Tank systems can become over-pressurized when the gases/vapors released from the solution are not pulled away fast enough by the vapor control system. Consider your kitchen

sink: if you turn on your kitchen faucet, and the drain is partially clogged, eventually the water would rise and spill over onto the floor. Even though water is draining from the sink, the rate at which the water is draining out is much less than the rate of water being added. This causes the water to accumulate, reach a critical height/point, and eventually spill over. See the image below.



The same concept applies to vapor in a storage tank: if the vapor enters the tank at a rate faster than what the vapor control system can take away, eventually the vapors will over-pressurize the tank and must escape to atmosphere through the tank's PRD.[93] The rate of vapors entering the tank (or liberated in the tank) is referred to as the peak potential instantaneous vapor flowrate, or PPIVFR. The rate at which the vapors leave the tank system is referred to as the Vapor Control System Capacity, or VCS Capacity.[94] The PPIVFR is expressed in units of standard cubic feet per second ("SCF/S"), per hour ("SCFH"), or per day ("SCFD, MSCFD, or MMSCFD"). The VCS Capacity is represented as a function of the pressure in the tank. The higher the pressure in the tank, the higher the vapor flowrate exiting the tank. The VCS capacity is usually determined at the opening pressure of the tank relief device (usually 10-16 oz/in2) and also has units of SCF/S, per SCFH, or per day as SCFD, MSCFD, or MMSCFD.

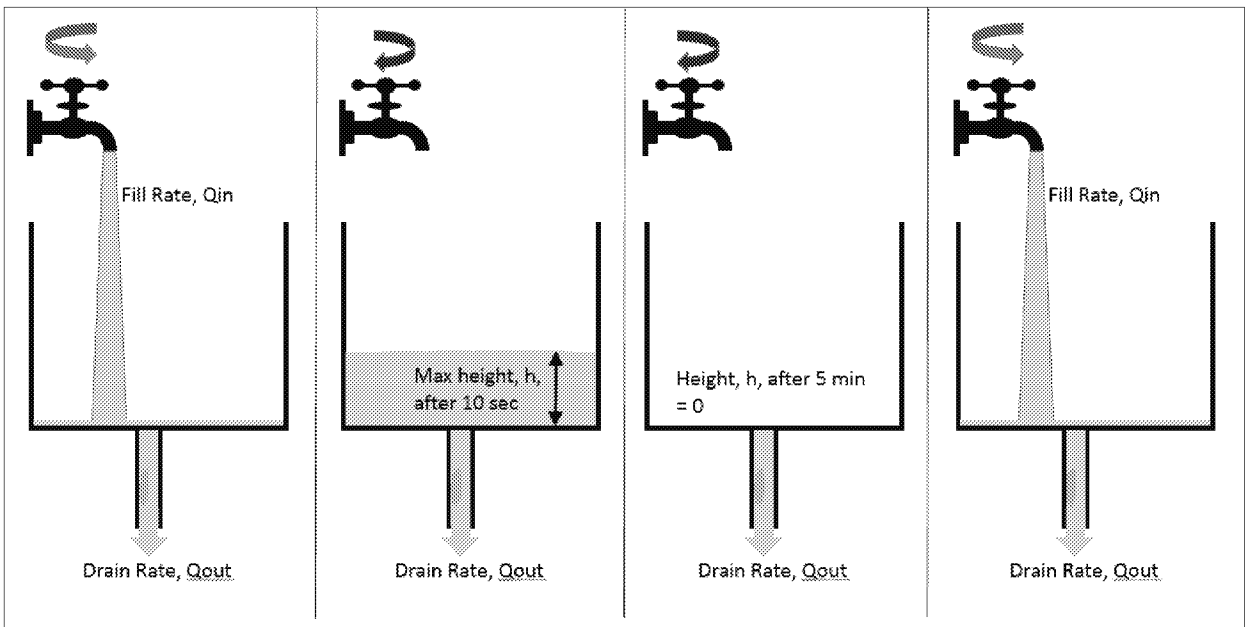
iii. Types of Analysis

Consider again the above example: if the kitchen faucet is left on for an extended period of time, the water would eventually fill the sink and cause it to spill over. The water flow into the sink is continuous, constant, and never stops. As such, consideration of the fill *rate* and the drain *rate* are important in determining whether or not the sink will overflow. This is indicative of a "steady state analysis." A steady state analysis by its nature does not consider time or duration.[95] For a storage tank steady state Design Analysis, the analyst simply looks at the rate that vapor enters the tank (i.e, the PPIVFR) and compares that to the rate that vapor exits the tank

[93] ZSTD-0009, supra note 87, at 55.
[94] *Id.* at 49.
[95] *Id.* at 15.

(VCS Capacity at the relief device lift pressure).[96] If the vapor rate exiting the tank at the relief device lift pressure (or slightly below that) is equal to or greater than the rate entering the tank, then the analyst would say that the vapor control system is adequately designed.

With that same example, consider this scenario: you turn on the faucet for 10 seconds, turn it off, wait five minutes, and continue that process throughout the day. Although the rate of water entering the sink was greater than the drain rate during the 10 second period, the volume of water that entered the sink was not enough to overflow it. And by the time you turned the water on again after the five minutes lapsed, the sink was empty again. This is indicative of a transient analysis. A transient analysis is time dependent.[97] For a storage tank transient Design Analysis, the analyst must look at the time, duration, and number of times that PPIVFR occurs and determine whether there is sufficient time between ON cycles for the vapor control system to remove vapors fast enough before the next PPIVFR cycle.[98] If the vapor control system cannot remove vapors from the tank before the next cycle begins, then over time more and more vapor will be added to the tank, thereby causing it to over-pressurize.



Example 3. Qin > Qout (Qin is on for 10 sec, off for 5 min, and repeated)

iv. Design Analysis Process

The Design Analysis process for an oil production facility starts with data gathering. Where an operator is designing a new facility from scratch (referred to as a "greenfield" project), the VCS Design Analysis must progress in maturity and detail as the site goes through the stages of design: concept, preliminary design, review stage, final design, construction, and as-built

[96] *Id.* at 18.
[97] *Id.* at 19.
[98] *Id.* at 55.

design.[99] Eventually the Design Analysis will reflect an as-built configuration of the running facility; at a minimum, there should be a sufficient amount of conservatism built into the Design Analysis during an early stage of the design process such that the Design Analysis does not require further update. For an existing facility, the Design Analysis will reflect the as-built configuration.

The process of Design Analysis usually constitutes the following steps:[100]

1. Data Collection
2. Analysis Assumptions and Data Gaps
3. Performing Analysis and Analysis Type (steady state vs transient)
4. Performing Analysis
    a. PPIVFR Determination
    b. VCS Capacity Determination
    c. Frequency, duration, cycles of PPIVFR (if transient analysis is applied)
5. Result (PASS/FAIL)
6. Mitigation Implementation (if FAILED)
7. Final Analysis with Mitigations Included (PASSED)

During data collection, the data needed for Design Analysis is extensive. Overall, though, there are two goals:

1. Gather all data necessary to quantify the PPIVFR.
    a. Separator pressure, fluid properties, and valve trim → Gives you flash and working PPIVFR (the gassier the oil and the higher the pressure, the more flash)
    b. Number of separators and vapors sources → Gives you total flash and working PPIVFR
    c. Frequency, Duration, and number of PPIVFR cycles → Gives you the basis of the transient analysis (if steady state analysis is not employed)
    d. Number of tanks and their size → Gives you total thermal PPIVFR
2. Gather all data necessary to quantify VCS Capacity.
    a. Thief hatch or relief device set points → Provides an upper limits the VCS flowrate
    b. Diameter and total length of VCS piping → Gives you VCS piping capacity
    c. Total number of elbows, tees, and fittings → Gives you VCS piping capacity
    d. Combustor type, model, and quantity → Gives you ECD capacity

Where data is not available, or where there are inherent data gaps, some assumptions are required.[101] These assumptions may include the maximum separator pressure, well fluid slug size, or maximum liquid levels in the tank. If these variables and others are not known, meaning they are not recorded, the analyst should make conservative estimates. These assumptions should cover all modes of operation. For example, if a facility separator pressure is currently at 120

[99] *Id.* at 15.
[100] *Id.* at Section 7.
[101] *Id.* at 69-73.

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psig, the analysis may model to 200 psig in order to ensure the facility will remain compliant at potential higher pressures.

Once all data is collected (or assumptions have been made), the analyst must evaluate which type of analysis—steady state or transient—is most appropriate. As with the kitchen faucet example, the analyst must understand whether the flow into the tank system is continuous (steady state analysis) or sporadic (transient analysis). Then the analyst calculates the PPIVFR and VCS Capacity.

The PPIVFR can be simple to calculate so long as the analyst knows the pressure drop (i.e., pressure in the separator minus the pressure in the tank), the dump valve capacity (i.e., the bigger the valve, the more liquid can flow when it opens), and the composition.[102] The composition is critical, as it dictates how much vapor/gas is stored in solution and how much vapor/gas is liberated from solution when it enters the tank. The amount of vapor liberated is called the flash gas-oil-ratio ("FGOR") and it is usually expressed in SCF per barrel ("SCF/BBL).[103] By knowing the liquid flowrate, and the amount of vapor/gas that gets carried with it into the tank, the PPIVFR can be determined in terms of SCF/S, SCF/M, SCF/H, etc.

The VCS Capacity is more difficult to determine. The simplest way to describe this determination is as follows: each component in the VCS has a specific pressure drop at an associated flowrate. For example, a 3" pipe that is 100-feet long models a pressure drop of 2 oz/in2 at 100 MSCFD, 3 oz/in2 at 150 MSCFD, 4 oz/in2 at 200 MSCFD, and so on. A combustion device may have a pressure drop of 4 oz/in2 at 10 MSCFD, 6 oz/in2 at 20 MSCFD, and 10 oz/in2 at 30 MSCFD. For a steady state analysis, each component's pressure drop is evaluated at the PPIVFR.[104] Then, the analyst will add all the pressure drops. If the total summed pressure drop is greater than the tank relief device lift pressure, then there is a potential for the relief device to open during normal operations. If the total summed pressure drop is less than the tank relief device lift pressure, then the system is adequately designed.

For a transient analysis, the VCS capacity is determined in a fashion similar to a steady state analysis. However, for transient analysis not only is VCS capacity compared to the PPIVFR, but also the amount of vapor (SCF) released during a dump valve event compared to the vapor space residing the in tanks.[105] In addition, the transient analysis also compares the amount of vapor that exits through VCS when the dump valve is closed to the amount of time that the dump valve is closed. In a transient analysis, even if the PPIVFR is greater than the VCS Capacity (refer to the kitchen sink transient analysis discussion), there may enough tank vapor space to absorb the flash vapor volume without exceeding the tank relief device lift pressure, AND there may be enough time between dump valve actuations for the tanks to depressurize before the next dump valve cycle. The ultimate goal is that the transient analysis will show that pressure in the tank will not exceed tank pressure relief device lift pressure.[106] See the following table for a comparison of variables.

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[102] *Id.* at 33-34.
[103] *Id.* at 16.
[104] *Id.* at 49.
[105] *Id.* at 60.
[106] *Id.* at 20-21.

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Steady State Analysis Variable Comparison		
PPIVFR	vs	VCS Capacity

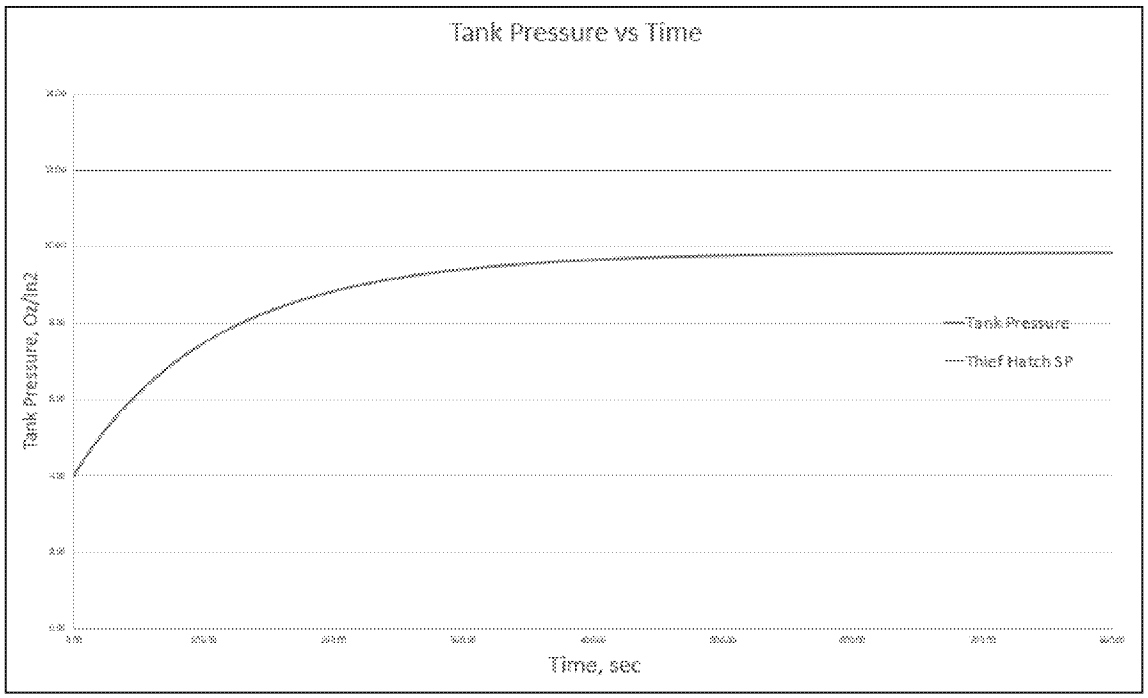
Transient Analysis Variable Comparison		
PPIVFR	vs	VCS Capacity
Flash Vapor Volume (SCF)	vs	Tank Vapor Space
Vapor Exiting through VCS	vs	Dump Valve Closed Time

v. Pass/Fail Criteria

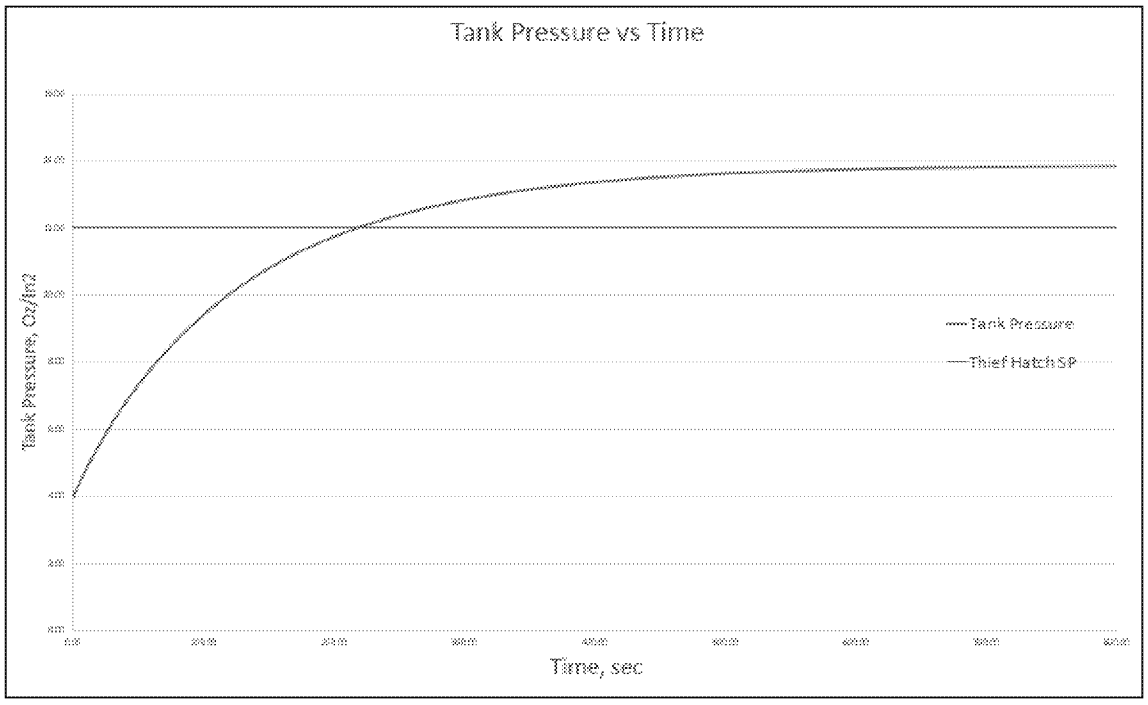
The pass/fail criteria for a site Design Analysis is simple: Does the analysis show that tank pressures will reach the tank relief device lift pressure? If the answer is yes, then modifications or operational changes must be implemented to show a passing model. If the answer is no, then the site is adequately designed.

Once the analysis is complete, the analyst will develop recommendations, or proposed modifications, which will be required to ensure the facility will "pass" future Design Analyses. These may include reducing dump valve size, reducing separator pressure, control tank liquid levels, adding combustors, and/or anything in between. Once the configuration is changed to reflect the passing analysis, the Design Analysis is finalized ("Final Design Analysis") showing that with the mitigations, the site is adequately designed. The examples below demonstrate a "passing" and a "failing" steady state analysis, as well as a "passing" and a "failing" transient analysis. Take note of the "passing" transient analysis, wherein the PPIVFR is clearly greater than the VCS Capacity during a valve dump event (hence the large spike in pressure), however, the tank pressure never exceeds the relief device set point.[107]

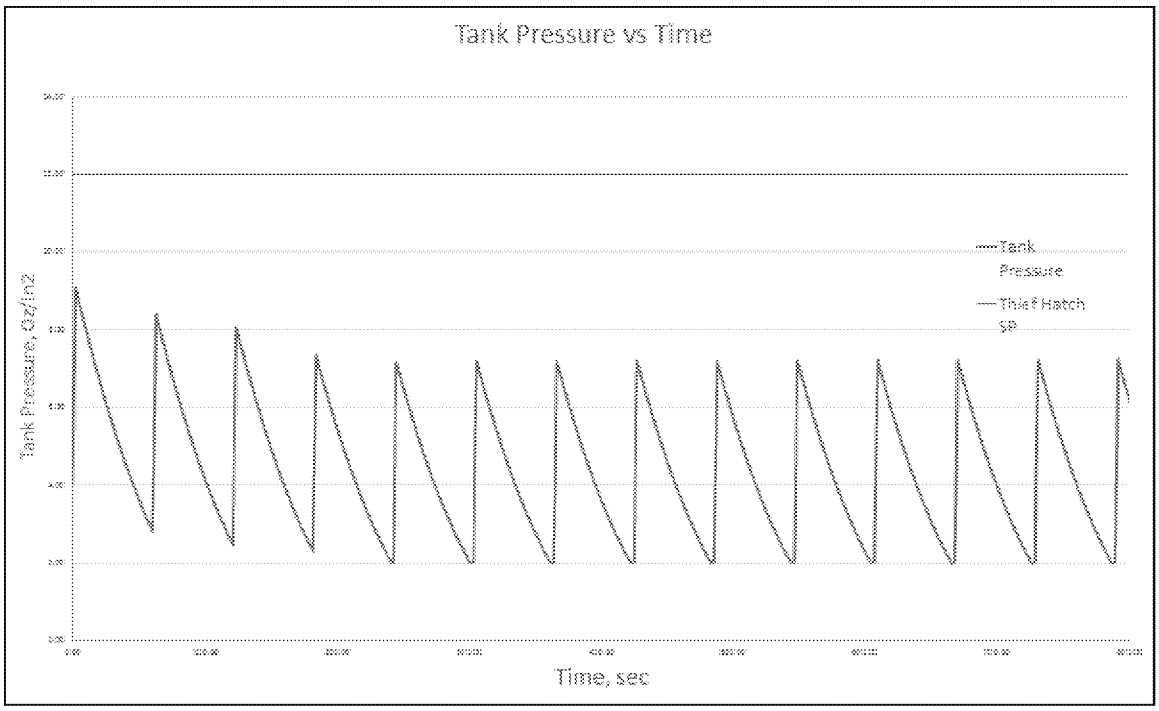
[107] *Id.* at 20-21.



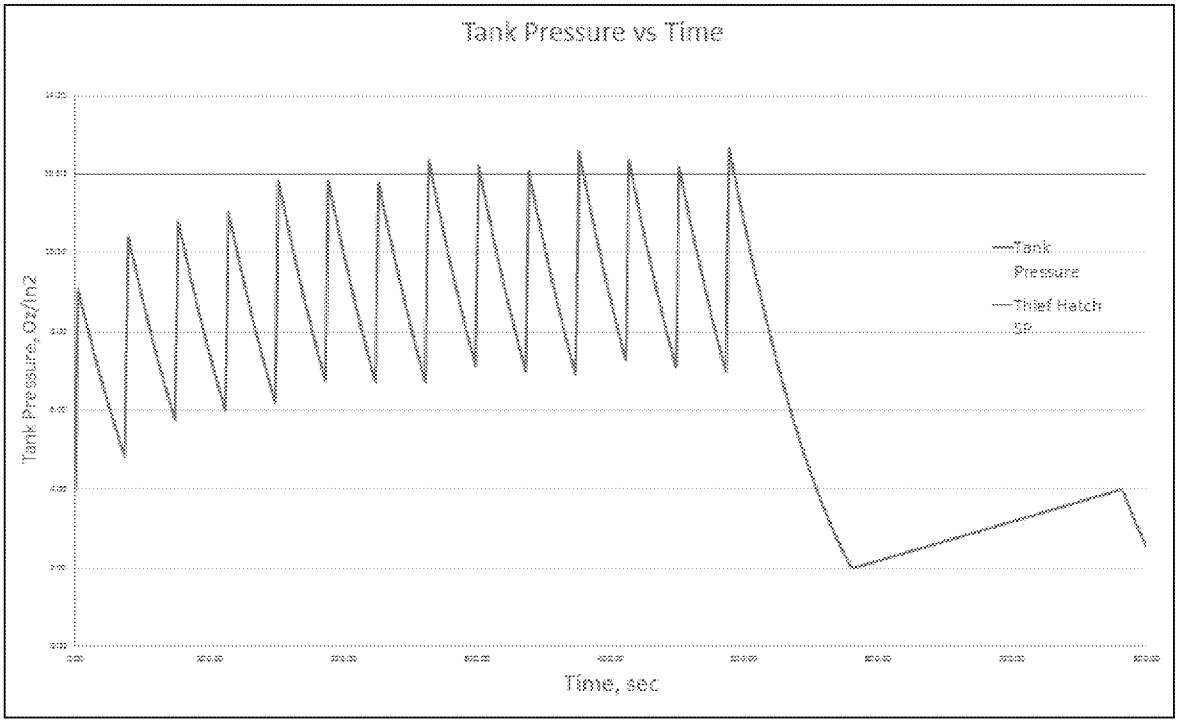
Example 1. “Passing” Steady State Analysis



Example 2. “Failing” Steady State Analysis



Example 3. “Passing” Transient Analysis



Example 4. “Failing” Transient Analysis

vi. Conservative Assumptions

From the Design Analysis process above, the analyst must identify levels of conservativism to place into the analysis. The analyst must be careful not to be under or overly conservative in the analysis because either side of the spectrum have ramifications. An analysis that uses daily or monthly averages production averages, for example, may seem like an appropriate representation of normal operations; however, a site designed to averages is at higher risk of venting during minor deviations from this average. On the other side of the spectrum, if the analyst is overly conservative with the Design Analyses, the recommendations can result in higher capital expense or more complex operation for larger capacity VCS components that are unnecessary for the facility.

vii. Summary and Common Misconceptions

There are two approaches, the steady state analysis and the transient analysis approach. Either can be employed at the discretion of the analyst. But note that the purpose of each is to verify that tank pressures do not exceed the tank relief device lift pressure.[108] The purpose should not be to simply compare PPIVFR to VCS Capacity. While a steady state analysis must show the PPIVFR is less than or equal to the VCS Capacity, that is not true for a transient analysis. Just like the kitchen faucet flowing strong for 10 seconds, but turned off for 5 minutes, the pressure in a tank system can behave in the same way and the comparison of PPIVFR and VCS Capacity is moot. Most facilities behave dynamically and in most cases a transient analysis is more appropriate. It is rare for facilities to fall into a perfect steady state analysis. As such, the analyst, operator, and their legal team should understand when it is appropriate to compare PPIVFR to VCS Capacity, and when it is better to cut to the *real* reason for the Design Analysis: which is that tank pressures should not exceed the relief device lift pressure.

b. Operating and Maintaining Storage Tanks

Demonstrating compliance with the proper operation and maintenance of storage tanks now includes two primary components: directed inspections and preventative maintenance.[109] In general, directed inspections include a weekly inspection of tanks, vapor control systems, or other production equipment to determine that they are operating properly and operating within the bounds of the design analysis.[110] Preventative maintenance includes regular maintenance and inspection of specified pieces of equipment (though this not required weekly).[111] The Noble Consent Decree identified these two concepts and left the specific execution to Noble.[112] The Slawson and PDC Consent Decrees each expand these general concepts; the Slawson Consent Decree elaborated more on the regular inspections, and the PDC Energy Consent Decree included more detail for both. Details of these operation and maintenance practices are summarized below.

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[108] ZSTD-0009 Second Edition, pages 18, 20-21
[109] PDC Consent Decree, supra note 23, at ¶¶ 13-14.
[110] *Id.* at ¶ 13.
[111] *Id.*
[112] Noble Consent Decree, supra note 8, at ¶ 16.

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i. Directed Inspections

During directed inspections, operators perform an inspection or an action aimed at verifying equipment is operating properly. These are typically items that can be inspected with sight, sounds, and/or smell while an operator is visiting their location, and are not intrusive to the equipment operating on site.[113] This is akin to checking tire tread on a car on a regular basis. Items to inspect may include:

- Audio, Visual, and Olfactory ("AVO") inspections to check for evidence of emissions or operational abnormalities;
- Inspect separator pressure, pressure set point, temperature set point, and/or proper dump valve operation;
- Inspect tank thief hatches, PRVs, valves, and/or piping to ensure components are properly sealing and/or in the correct position for normal operation;
- Inspect vapor control system for presence of pilot light, absence of smoke, a properly functioning auto igniter, a properly functioning control device, and/or draining a liquid knockout vessel.

In order to demonstrate compliance that these inspections are conducted (and properly), operators are expected to have internal documents (e.g. standard operating procedures, or "SOPs") explaining all of the items to be inspected and what it means to be "properly operating."[114] In order to ensure understanding of SOPs or other materials, operators must also conduct and have records of a training program.[115]

ii. Preventative Maintenance

Preventative maintenance activities are intended to prevent emissions from occurring by timely addressing items that wear or build up over time. Typically, this includes access to elements of oil and gas equipment (*e.g.,* thief hatches in tanks and dump valves in separators) that are inside of equipment or pipe and access to which may require some or all of the equipment to be blown down or taken out of service.[116] Expanding on the tire example above, this is akin to replacing tires every 30,000 miles, regardless of the current tread. Preventative maintenance actions may include:

- Inspecting, cleaning, and, if necessary, replacing tank thief hatches and PRVs;
- Inspecting and, if necessary, cleaning or replacing valves or components in a vapor line (*e.g.,* flame arrestors);
- Blowing out vapor lines to address potential fluid accumulation;
- Inspecting emission control devices for proper operation;
- Inspecting and, if necessary, replacing restrictions in lines (*e.g.* restriction orifice plates)

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[113] PDC Consent Decree, supra note 23, at ¶ 13.
[114] *Id.*
[115] *Id.*
[116] *Id.*

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- Inspecting the facility equipment with an IR Camera[117]

Similar to directed inspections, operators are expected to have internal documentation explaining all of the items to be inspected, what it means to be "properly operating," and when items are to be replaced and to accompany this with a training program.[118]

iii. DIPM Maintenance Schedules

In each of the consent decrees discussed in this paper, directed inspections are to occur at least weekly.[119] Directed inspection activities can occur quarterly, semi-annually, or annually depending on the activity. The frequencies listed in the consent decrees are minimum schedules. If during the course of operation, or during the trend analysis discussed below, and operator believes that these frequencies should be increased to prevent emissions, it appears that EPA and Colorado expect operators to document this review and implement the change. Returning to our tire example, if, between the 30,000 mile tire changes, the tread gets low continually at 26,000 miles, the tire change schedule may be adjusted to every 25,000 miles. However, the consent decrees do not provide a mechanism by which an operator can decrease frequencies for a system that is operating without emissions and/or where the operator does not see common problems.

iv. Trend Analyses

As an operator goes about its DIPM, it may observe emissions (or, as defined in the consent decrees, "Reliable Information").[120] In response, the operator is required to perform corrective actions to address the emissions within five days of observation.[121] Actions taken to correct a tank system or vapor control system during any activity—whether as a result of Reliable Information, during directed inspections, or during preventative maintenance—are always considered corrective actions under the PDC Consent Decree.[122]

Based on expectations established by EPA in the various consent decrees, it is clear that operators may no longer "find and fix" emissions; rather, the operator must review all of the records of corrective action taken in response to emissions to determine how it can prevent emissions in the future.[123] Returning yet again to the tire example, an operator would go through the following analysis: the operator has reviewed records and identified that, over the relevant timeframe, it observed and corrected a number of flats on brand X tires, but not on brand Y tires. Therefore, the operator may determine that it should use brand Y tires going forward to reduce the incidence of flat tires. In the trend analysis required under the PDC Consent Decree, corrective actions can take into consideration the type of action, location, age of equipment,

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[117] The Slawson Consent Decree includes Periodic Inspections under their DIPM. Noble and PDC Energy Consent Decrees include this activity as separate injunctive relief.
[118] PDC Consent Decree, supra note 23, at ¶ 13.
[119] PDC Consent Decree, supra note 23, at ¶ 13; Noble Consent Decree, supra note 8, at ¶ 15; Slawson Consent Decree, supra note 30, at ¶ 12.
[120] PDC Consent Decree, supra note 23, at ¶ 6(gg).
[121] *Id.* at ¶ 15.
[122] *Id.* at ¶ 13(e).
[123] *Id.* at ¶ 13(g).

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etc.[124] These trend analyses are combined with an annual records review, which must also now be included in the operator's STEM Plan.[125] Results of the design analyses and trend analyses are expected to be integrated into the STEM Plan on at least an annual basis. While the STEM Plan was intended to be flexible enough for operators to have one plan for many facilities,[126] the increasing level of detail required makes this more and more challenging.

v. Documentation

All of the items above must be accompanied with proper documentation. As discussed above, EPA and state agencies require documentation in order to confirm that an action occurred. Operators must set up systems to ensure complete records of inspections, preventative maintenance, corrective actions, and trend analyses. With the increasing level of specificity required by these consent decrees, documentation becomes more and more complex and is often one of the largest hurdles for an operator to overcome.

There are many options for field data capture software aimed at collecting operational data (e.g. production volumes); most operators already have such software in place. But it isn't always the case that this system can be adjusted to accommodate compliance documentation as required by the consent decrees. Solutions utilizing paper forms or electronic documents (*e.g.,* Microsoft Excel, Microsoft Word, or Adobe) are typically easier to implement, however, ensuring data completeness to properly trend this data can be very difficult with the more limited programs. A third-party, customizable software can provide robust data validation and enhance an operator's data review capabilities; however, this software is complex, typically require extensive training to use, and are expensive and time-intensive to implement. Due to the increased recordkeeping, review, and reporting requirements identified in the various consent decrees, operators must weigh the relatively simplicity of basic programs with the difficulty they may have in implementing the consent decrees using those programs. As noted before, the new standard has been made clear: if it's not recorded, it didn't happen, and operators must take steps to ensure they can affirmatively prove their compliance.

V. Legal and Policy Issues Arising In Light of Storage Tank Enforcement

Courts have yet to consider the various issues associated with storage tanks that have been discussed above; without exception, these issues have not been litigated beyond a basic complaint phase. Yet there are a number of legal, and even policy, questions about the strength of this new interpretation for operating storage tanks.

a. Potential Outsized Scope of Injunctive Relief

It is apparent from reading the sections above that the scope of injunctive relief in the consent decrees (and in parallel state orders) is extensive. As one example, the Noble, PDC, and

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[124] *Id.* at ¶ 13.
[125] *Id.* at ¶ 17(d).
[126] AQCC Regulation No. 7, § XX (Statement of Basis and Purpose: Storage Tank Emission Management System ("STEM") Plan, Monitoring, and Recordkeeping (Section XVII.C.) ("The Commission intends that sources have flexibility to develop STEM plans on an individual basis for each storage tank or for multiple storage tanks.")

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Slawson Consent Decrees contain highly-restrictive restraints on alienation; even where the respondent has completed the design analysis and retrofits of its facilities (*i.e.,* the operator has identified the system as properly sized to accommodate peak vapor flow). [127] Essentially, even when the affected facilities are in compliance, those facilities are subject to an extensive approval and modification process.[128] Any sale could conceivably move forward, but the operator would retain liability if the buyer and seller did not go through the process outlined in the sale and transfer section.[129]

One might rightly question whether a court would grant EPA such extensive injunctive relief in a civil claim. Under the CAA, a district court is authorized "to restrain [a] violation, to require compliance, to assess such civil penalty, to collect any fees owed the United States under [the Clean Air Act] … and any noncompliance assessment and nonpayment penalty owed …, and to award any other appropriate relief."[130] Although EPA has broad authority to seek injunctive relief under the CAA and the courts have broad authority to order it, "[t]he grant of jurisdiction to ensure compliance with a statute hardly suggests an absolute duty to do so under any and all circumstances, and a federal judge sitting as chancellor is not mechanically obligated to grant an injunction for every violation of law."[131] The government "must satisfy the court that [injunctive] relief is needed."[132]

The Third Circuit, for example, determined that injunctive relief was not appropriate against past owners of facilities for past violations, even when ongoing harm still occurred in some fashion.[133] In *U.S. v. EME Homer City Generation, L.P.*, the court noted "[t]he text of the [CAA] does not authorize an injunction against former owners and operators for a wholly past . . . violation, even if that violation causes ongoing harm."[134] And as the court in *EME Homer* explained: [135]

> [A]nd with time travel yet to be discovered, it is impossible to 'restrain' a violation that occurred twenty years ago. Likewise, courts cannot 'require compliance' from defendants who are not currently violating the Clean Air Act and who cannot violate the Act in the future because they no longer own or operate the source.

Under other environmental programs, courts have come to similar conclusions: that you can't be enjoined for violations that no longer occur. The Southern District of Ohio considered a similar scenario in *In Re Southdown Litigation*, [136] considering whether it should grant EPA injunctive relief against a prior owner of a facility for a past violation; the court determined that a "request

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[127] *See e.g.,* PDC Consent Decree, supra note 23, at Section XVI.
[128] *Id.*
[129] *Id.*
[130] 42 U.S.C. § 7413(b)(3).
[131] United States v. SCM Corp., 667 F. Supp. 1110, 1128 (D. Md. 1987) (*quoting* Weinberger v. Romero-Barcelo, 456 U.S. 305, 313 (1982)).
[132] *Id.* (*quoting* United States v. W.T. Grant Co., 345 U.S. 629, 633 (1953)).
[133] United States v. EME Homer City Generation, L.P., 727 F.3d 274, 293 (3rd Cir. 2013).
[134] *Id.*
[135] *Id.* at 292.
[136] In Re Southdown Litigation, 104 F. Supp. 2d 765, 769 (S.D. Ohio 1999).

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that this Court enjoin [defendant] from future violations of the CWA [was denied], [g]iven that [defendant] has sold the landfill, [and] it is no longer violating the CWA in the manner alleged … therefore, the request that this Court enjoin it from doing so in the future is moot."[137]

Although the facts in *EME Homer* and *In re Southdown Litigation* focused on past ownership, the analyses in these cases are instructive for the question raised here. Let's assume an operator wishes to sell a facility that it has brought into compliance with Regulation No. 7, §§ XII and XVII. In its prayer for relief, the EPA would have to essentially request that a court permanently enjoin an operator from selling *compliant* facilities outside of the consent decree process. The PDC Consent Decree requirement permitting operators to terminate only 15% of their tank batteries free and clear of injunctive relief, and restrict the sale process through onerous modification requirements—*regardless* of the compliance status of the other 85% facilities that cannot be terminated—falls squarely into the *EME Homer* and *In re Southdown Litigation* analyses. If "courts cannot 'require compliance' from defendants who are not currently violating the Clean Air Act,"[138] then arguably courts cannot enjoin operators seeking to sell *compliant* facilities to prospective purchasers in the future. Just as there was no behavior to "restrain when violations only occurred in the past," there would be no behavior to "restrain" when the operator sought to sell facilities after achieving compliance without the approval and modification process.

Such sale and transfer restrictions are common throughout EPA consent decrees; though, as to the authors' knowledge, their legitimacy has not been litigated. Nonetheless, the unique nature of oil and gas operations—when compared to, say, the operation of a large manufacturing facility or refinery—make such sale and transfer restrictions particularly onerous, as oil and gas operators regularly sell their facilities tank battery-by-tank battery, or well-by-well.

b. Potential Failure to Give Proper Notice of Regulatory Interpretation

As noted above, the EPA issued its Compliance Alert in September 2015. Prior to that Compliance Alert and the Noble Consent Decree, the regulated community had little, if any, public notice or even acknowledgment of the various expectations associated with the MEP Standard in Colorado and the Route All Losses Standard in North Dakota. Under the MEP Standard, for example, an operator could well argue that it lacked sufficient notice of what EPA or State of Colorado required of it under Regulation No. 7

Courts generally defer to agency interpretations of their own regulations. When an "agency's interpretation is not 'plainly erroneous or inconsistent with the regulation,'" courts accept the agency's interpretation.[139] But the power of agencies to interpret their own regulations is checked by the due process rights of regulated entities to have fair and adequate notice of the legal standards governing their behavior. "The due process clause thus 'prevents . . . deference from validating the application of a regulation that fails to give fair warning of the conduct it

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[137] *Id.*
[138] *EME Homer*, 727 F.3d at 292.
[139] Coeur Alaska, Inc. v. Se. Alaska Conserv. Council, 557 U.S. 261, 274-75 (2009) (*quoting* Auer v. Robbins, 519 U.S. 452, 461 (1997)).

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prohibits or requires.'"[140] The Supreme Court has thus rejected an agency's "interpretation of ambiguous regulations to impose potentially massive liability on respondent for conduct that occurred well before that interpretation was announced."[141] "Informed by basic principles of due process, it is a cardinal rule of administrative law that a regulated party must be given fair warning of what conduct is prohibited or required of it."[142] "In the absence of notice—for example, where the regulation is not sufficiently clear to warn a party about what is expected of it—an agency may not deprive a party of property by imposing civil or criminal liability." [143]

When determining whether notice was sufficient, "courts frequently look to the regulations and other agency guidance."[144] If review of the regulations and "other public statements issued by the agency" would allow a regulated entity "to identify, with ascertainable certainty, the standards with which the agency expects parties to conform, then the agency has fairly notified a petitioner."[145] A regulation can be too general to provide adequate notice of proscribed conduct.[146] Consider *Newell*, where the court determined that "general regulation" prohibiting a prisoner from possessing "anything not authorized for retention or receipt by the prisoner" did not give the plaintiff "adequate notice that his conduct was forbidden."[147]

Other than reference to an "engineering evaluation" in the Statement of Basis and Purpose as to the No Venting Standard, there is very little to identify any basis for performing a specialized "design analysis" as contemplated by Section IV above. Regulation No. 7 certainly does not require monthly AIMM for all facilities, as required in the Bonanza Creek COC; the revised Regulation No. 7 would require only annual AIMM inspections for many of the affected facilities (and as discussed above, there is arguably no basis for requiring any additional work beyond bringing the facility into minimum compliance). And consider the trend analysis now required to comply with the "operate" and "maintain" provisions of the MEP Standard—nowhere is such an analysis explicitly contemplated in Regulation No. 7.

But alternatives to settling these matters through a consent decree, or state-equivalent, process have their own problems. For example, at the time of writing, penalties for Clean Air Act violations have reached approximately $93,000 per day. While a court may be unwilling to order long-term injunctive relief for compliant facilities at the time of ruling, the potential for daily-accruing penalties may well render civil litigation unattractive. Not to mention, as oil and gas operations come under intensive scrutiny, protracted and public litigation is unlikely to be ideal. When faced with the option of negotiating and settling these violations relatively quickly (as compared to the length of time required for a civil action), the consent decree process is much more likely to appeal to operators; even if they had little notice of what the cited rules required before the enforcement initiative began.

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[140] 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) (Scalia, J.)).
[141] Christopher v. SmithKline Beecham Corp., 567 U.S. 142, 155 -56 (2012).
[142] Wis. Res. Prot. Council v. Flambeau Min. Co., 727 F.3d 700, 707 (7th Cir. 2013).
[143] Gen. Elec. Co. v. EPA, 53 F.3d 1324, 1328-29 (D.C. Cir. 1995).
[144] Wis. Res. Prot. Council, 727 F.3d at 708.
[145] *Id.* (quoting Howmet Corp. v. EPA, 614 F.3d 544, 553-54 (D.C. Cir. 2010)).
[146] *See* Newell v. Sauser, 79 F.3d 115, 118 (9th Cir. 1996)
[147] *Id.*

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c. Is EPA oversight still necessary?

Nearly 50 years have passed since passage of the CAA. Many states now have (1) the knowledge and expertise; (2) the funding; and (3) the will to implement their own environmental standards (some of which are stricter than federal standards). Take Colorado, as one example, which has been a leader in the development of methane regulations. Years prior to EPA's revision of 40 C.F.R. § 60, Subpart OOOO, Colorado passed Regulation No. 7, requiring emission controls at certain existing and newly-built facilities in Colorado; these rules provided the blueprint that became EPA's methane rule in Quad Oa.[148] Yet, despite Colorado's highly-engaged environmental agency, EPA took the initial lead in enforcing Regulation No. 7. Many view this sort of dual-enforcement as largely unnecessary in states that are both self-sufficient and aggressive in enforcement of their own regulations.

Some states have arrived at this conclusion: that EPA involvement in the state enforcement process is simply unnecessary at this point. Specifically, in June 2017, the Environmental Coalition of States ("ECOS") issued a white paper indicating that the enforcement role, particularly of state regulations, is best held by the states:

> States are the preferred implementing entities for national environmental regulatory programs for which federal statutes authorize their delegation. Only where states elect not to pursue delegated federal authority, do not provide the resources necessary to meet national regulatory minimum standards, or have a documented history of failure to make progress toward meeting national standards, should U.S. EPA implement these environmental programs.[149]

Acknowledging the crucial role that EPA played in the development of the country's initial swath of environmental laws, ECOS argues for a more limited EPA role where states are engaged on the issue of environmental enforcement. That paper was co-sponsored by Martha Rudolph, Director of Environmental Programs, at the CDPHE.

VI. Conclusion

Ultimately, EPA's "innovative enforcement" may well have resulted in the regulatory scope creep many predicted would occur. We may never know whether a court would agree that the MEP Standard, for example, would require extensive engineering review and increased IR camera inspections beyond black-and-white regulatory requirements—unless, of course, an operator challenges EPA or state enforcement on these issues. In any case, the new rules for designing, operating, and maintaining storage tanks and their related vapor control systems in EPA Region VIII states have been set.

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[148] See AQCC Regulation No. 7, §§ XII, -XVII (April 14, 2014).

[149] ECOS, COOPERATIVE FEDERALISM 2.0: ACHIEVING AND MAINTAINING A CLEAN ENVIRONMENT AND PROTECTING PUBLIC HEALTH 3 (June 2017).

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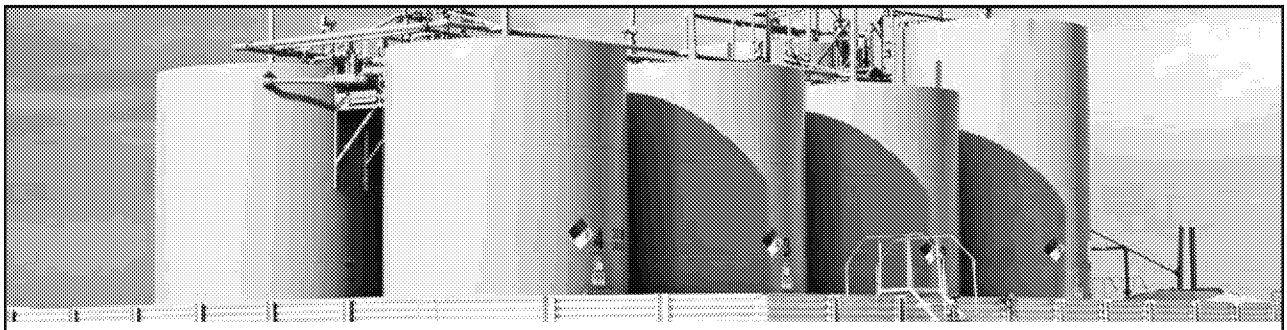

THE UPSTREAM OIL AND GAS STORAGE TANK ENFORCEMENT INITIATIVE:

New Design, Maintenance, and Operational Issues

Chelsea Grossi, Attorney, Davis Graham & Stubbs LLP
Sarah Bartlett, Sr. EHS Manager, PDC Energy, Inc.
Adam Meyer, Oilfield Solutions Manager, ZAP Engineering & Construction Services, LLC

DAVIS GRAHAM & STUBBS

PDC ENERGY
Growing E&P Value

ZAP
ENGINEERING & CONSTRUCTION SERVICES, INC.

"ALL CONDENSATE COLLECTION, STORAGE, PROCESSING AND HANDLING OPERATIONS, REGARDLESS OF SIZE, SHALL BE DESIGNED, OPERATED AND MAINTAINED SO AS TO MINIMIZE LEAKAGE OF VOLATILE ORGANIC COMPOUNDS TO THE ATMOSPHERE TO THE MAXIMUM EXTENT PRACTICABLE."

~AQCC REGULATION 7, § XII.C.1.B

"ALL CONDENSATE COLLECTION, STORAGE, PROCESSING AND HANDLING OPERATIONS, REGARDLESS OF SIZE, SHALL BE DESIGNED, OPERATED AND MAINTAINED SO AS TO MINIMIZE LEAKAGE OF VOLATILE ORGANIC COMPOUNDS TO THE ATMOSPHERE TO THE M

1. CONDUCT AND DOCUMENT INITIAL ENGINEERING DESIGN EVALUATION
2. CONDUCT AND DOCUMENT ENGINEERING DESIGN EVALUATION UPON CHANGE
3. RETROFIT FACILITY AS NECESSARY

"ALL CONDENSATE COLLECTION, STORAGE, PROCESSING AND HANDLING OPERATIONS, REGARDLESS OF SIZE, SHALL BE DESIGNED, OPERATED AND MAINTAINED SO AS TO MINIMIZE LEAKAGE OF VOLATILE ORGANIC COMPOUNDS TO THE ATMOSPHERE TO THE M

1. OPERATE WITH DESIGN PARAMETERS AND HAVE PROCESS TO REVISE DESIGN AS NEEDED
2. REGULARLY CONDUCT AND DOCUMENT FACILITY INSPECTION
3. RESPOND TO EMISSION OBSERVATIONS IN PRESCRIBED TIMEFRAME

"ALL CONDENSATE COLLECTION, STORAGE, PROCESSING AND HANDLING OPERATIONS, REGARDLESS OF SIZE, SHALL BE DESIGNED, OPERATED AND MAINTAINED SO AS TO MINIMIZE LEAKAGE OF VOLATILE ORGANIC COMPOUNDS TO THE ATMOSPHERE TO THE M

1. PREVENTATIVE MAINTENANCE PROGRAM
2. EVALUATION OF CORRECTIVE ACTIONS TO INFORM CHANGES TO MAINTENANCE PROGRAM
3. CONDUCT AND DOCUMENT PERIOD INSPECTION WITH IR CAMERA

"OWNERS OR OPERATORS OF STORAGE TANKS MUST ROUTE ALL HYDROCARBON EMISSIONS TO AIR POLLUTION CONTROL EQUIPMENT, AND MUST OPERATE WITHOUT VENTING HYDROCARBON EMISSIONS FROM THE THIEF HATCH (OR OTHER ACCESS POINT TO THE TANK) OR PRESSURE RELIEF DEVICE DURING NORMAL OPERATION, UNLESS VENTING IS REASONABLY REQUIRED FOR MAINTENANCE, GAUGING, OR SAFETY OF PERSONNEL AND EQUIPMENT."

~ AQCC REGULATION 7, § XVII.C.2.

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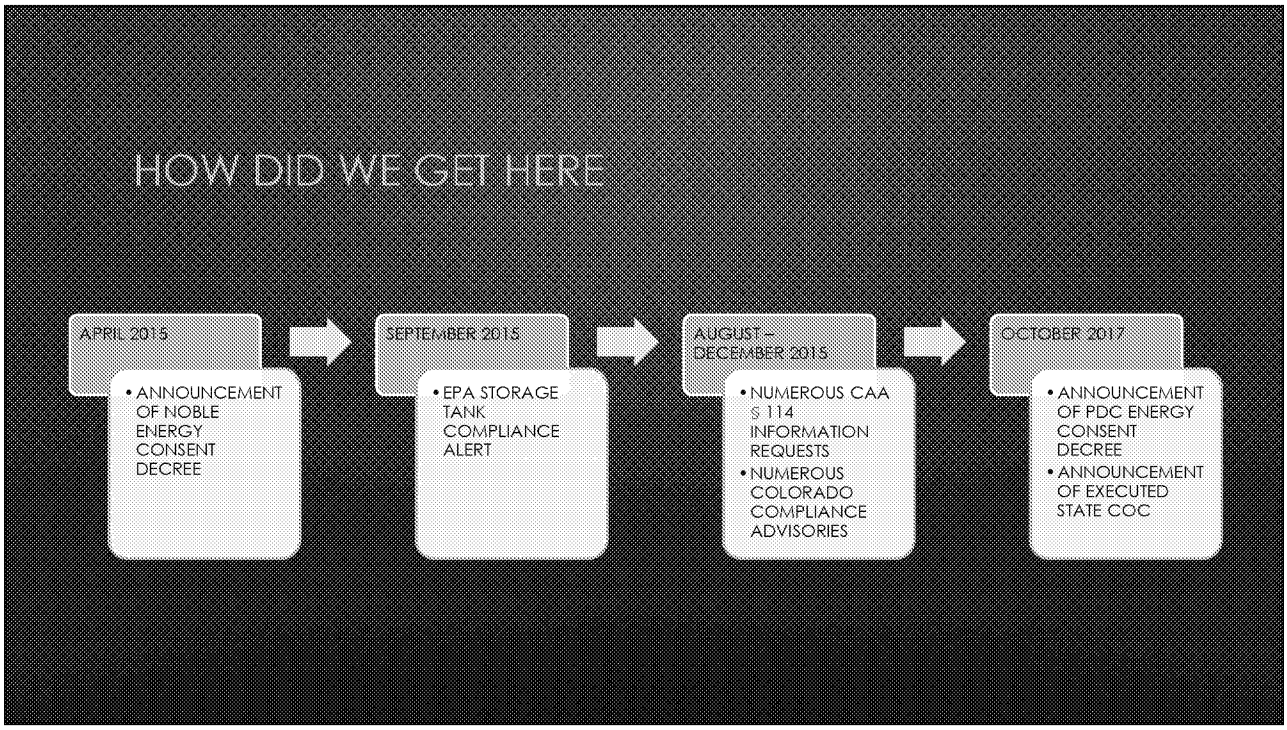
"OWNERS OR OPERATORS OF STORAGE TANKS MUST ROUTE ALL HYDROCARBON EMISSIONS TO AIR POLLUTION CONTROL EQUIPMENT, AND MUST OPERATE WITHOUT VENTING HYDROCARBON EMISSIONS FROM THE THIEF HATCH (OR OTHER ACCESS POINT TO THE TANK) OR PRESSURE RELIEF DEVICE DURING NORM
REASONABLY REQUIRE
SAFETY OF PERSONNEL

"[A]RE PRIMARILY THE RESULT OF OVER-PRESSURIZATION, WHETHER RELATED TO DESIGN, OPERATION, OR MAINTENANCE; OR [A]RE THE RESULT OF AN OPEN, UNLATCHED, OR VISIBLY UNSEATED PRESSURE RELIEF DEVICE (E.G., THIEF HATCH OR PRESSURE RELIEF VALVE), AN OPEN VENT LINE, OR AN UNINTENDED OPENING IN THE STORAGE TANK (E.G., CRACK OR HOLE)."

~AQCC REGULATION NO. 7, § XVII.C.2.a.(i)(A)-(B)


HOW DID WE GET HERE
APRIL 2015
• ANNOUNCEMENT OF NOBLE ENERGY CONSENT DECREE
SEPTEMBER 2015
• EPA STORAGE TANK COMPLIANCE ALERT
AUGUST – DECEMBER 2015
• NUMEROUS CAA § 114 INFORMATION REQUESTS
• NUMEROUS COLORADO COMPLIANCE ADVISORIES
OCTOBER 2017
• ANNOUNCEMENT OF PDC ENERGY CONSENT DECREE
• ANNOUNCEMENT OF EXECUTED STATE COC

WHAT DOES IT MEAN TO PROPERLY DESIGN A TANK BATTERY?

"ALL CONDENSATE COLLECTION, STORAGE, PROCESSING AND HANDLING OPERATIONS, REGARDLESS OF SIZE, SHALL BE DESIGNED, OPERATED AND MAINTAINED SO AS TO MINIMIZE LEAKAGE OF VOLATILE ORGANIC COMPOUNDS TO THE ATMOSPHERE TO THE M

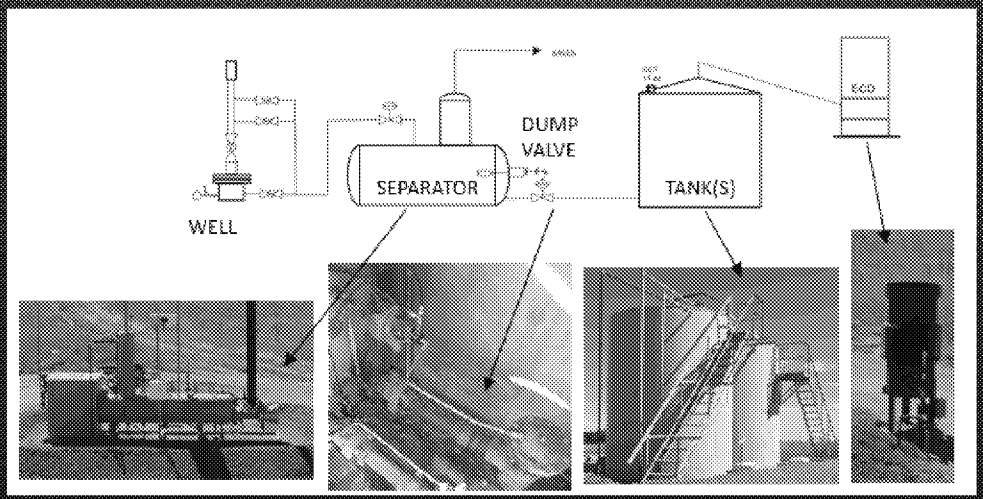
1. CONDUCT AND DOCUMENT INITIAL ENGINEERING DESIGN EVALUATION
2. CONDUCT AND DOCUMENT ENGINEERING DESIGN EVALUATION UPON CHANGE
3. RETROFIT FACILITY AS NECESSARY

DESIGN ANALYSIS OVERVIEW

DOCUMENTATION

1. FIELD DATA COLLECTION, WELL/PRODUCTION DATA
2. FIELD TEST (OPTIONAL)
3. DESIGN ANALYSIS
4. DESIGN SOLUTIONS OR OPERATIONAL SOLUTIONS
5. OVERVIEW

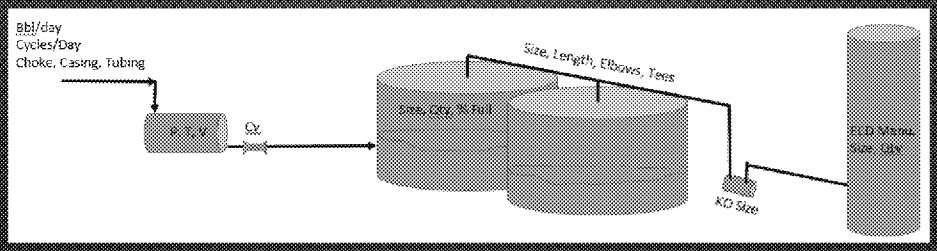
SITE OVERVIEW



SITE OVERVIEW

SITE OVERVIEW

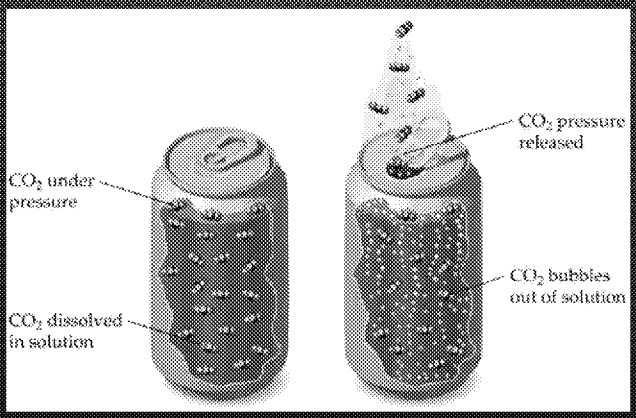
FIELD DATA TO COLLECT



- **UPSTREAM DATA** (WELL BEHAVIOR, PROD RATE, CYCLES PER DAY, FLOWRATE, ETC)
- **SEPARATOR DATA** (SIZE, DUMP VOLUME, DUMP VALVE CAPACITY, PRESSURE, TEMPERATURE, ETC.)
- **TANK BATTERY DATA** (SIZE, QUANTITY, MAX PERCENT FULL)
- **VAPOR CONTROL SYSTEM DATA** (PIPE LENGTH, FITTINGS, MOTOR VALVE, FLAME ARRESTOR, ECD QUANTITY AND TYPE)
- **SEPARATOR FLUID SAMPLE DATA** (FLASH LIBERATION ANALYSIS OF SEPARATOR → GET FLASH VAPOR SCF/BBL AND VAPOR MOLECULAR WEIGHT)

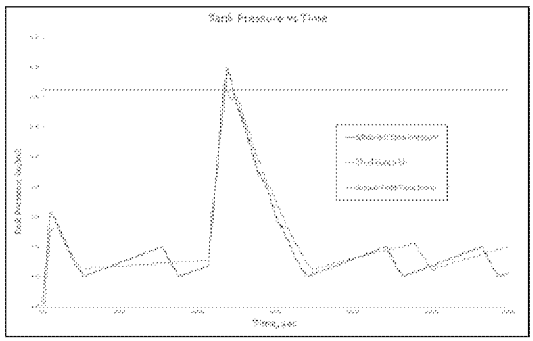
FLASH VAPORS

- FLASH VAPORS – GASES/VAPORS THAT COME OUT OF SOLUTION DUE TO DEPRESSURIZATON OR INCREASE IN TEMPERATURE



FIELD TEST (OPTIONAL)

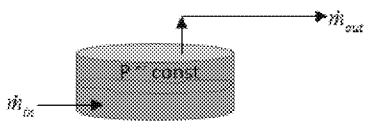
- Separator Dump Valve Timing (stop watch) with Digital Pressure Gauge on Tank.
- Goal – model verification, VCS capacity verification, and well flowrate determination



Arrival	12.2
Open	17.03
Closed	410.08
Open	42.55
Closed	33.55
Open	1.25
Closed	8.17
Open	1.15
Closed	15.99
Open	1.1
Closed	24.86
Open	1
Closed	56.23
Open	1.08
Closed	1212.63

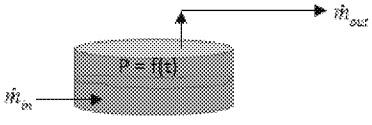
DESIGN ANALYSIS

STEADY STATE ANALYSIS: ALL VAPORS ENTERING (FLASH), PRODUCED BY (BREATHING), OR DISPLACED (WORKING) IN THE STORAGE TANK MUST EXIT THROUGH THE VAPOR CONTROL SYSTEM AT THE SAME RATE:



$$\dot{m}_{flash} + \dot{m}_{work} + \dot{m}_{breathing} = \dot{m}_{out}$$

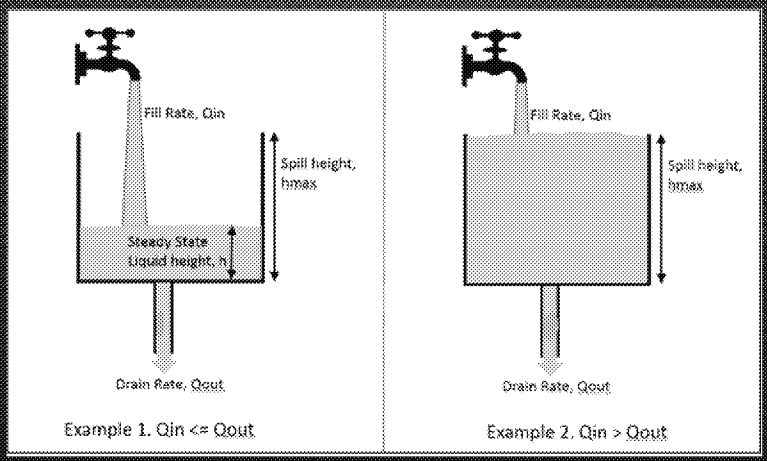
TRANSIENT ANALYSIS: ALL VAPORS ENTERING, PRODUCED BY, OR DISPLACED IN THE STORAGE TANK MUST ACCUMULATE IN THE STORAGE TANK OR EXIT THROUGH THE VAPOR CONTROL SYSTEM IN SUCH A WAY SO THAT THE TANK PRESSURE, P, DOES NOT EXCEED PRV LIFT PRESSURE:



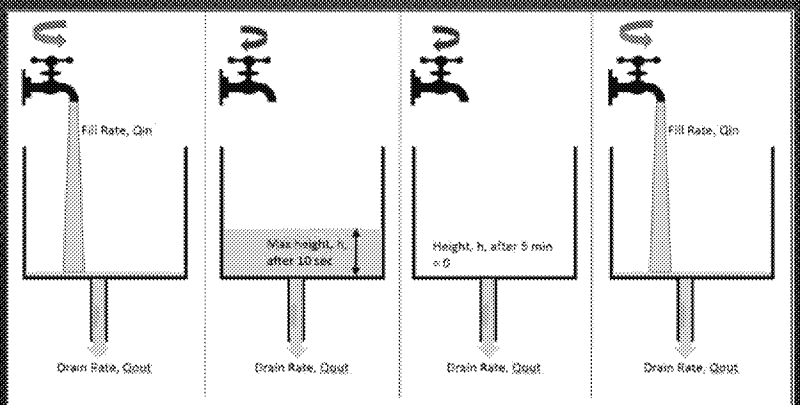
$$\frac{d}{dt}(m)_{tank} = \dot{m}_{flash} + \dot{m}_{work} + \dot{m}_{breathing} - \dot{m}_{out}$$

$$\frac{d}{dt}(m)_{tank} \propto \frac{d}{dt}(P)_{tank}$$

STEADY STATE ANALYSIS: PASSING AND FAILING



TRANSIENT ANALYSIS: PASSING



Example 3. Qin > Qout (Qin is on for 10 sec, off for 5 min, and repeated)

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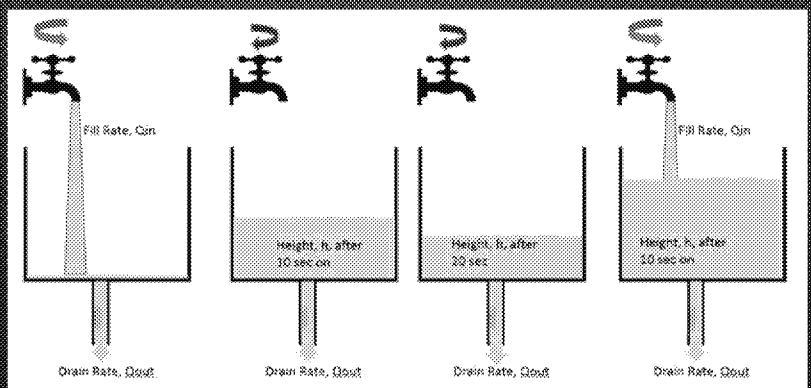
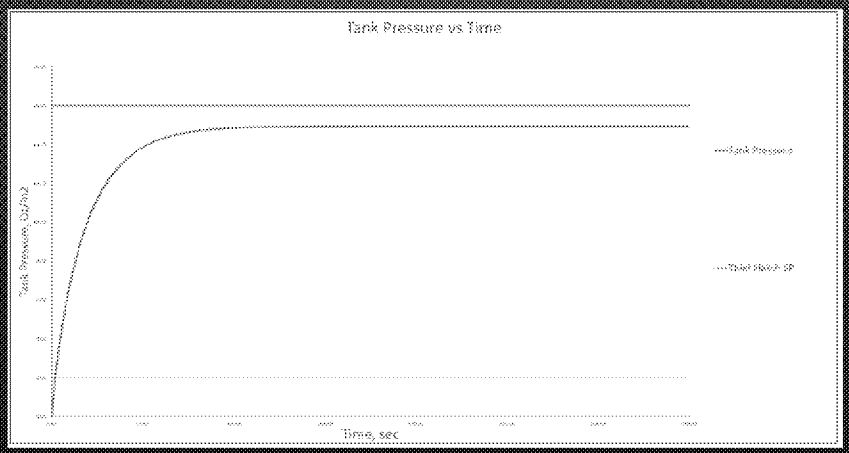
TRANSIENT ANALYSIS: FAILING

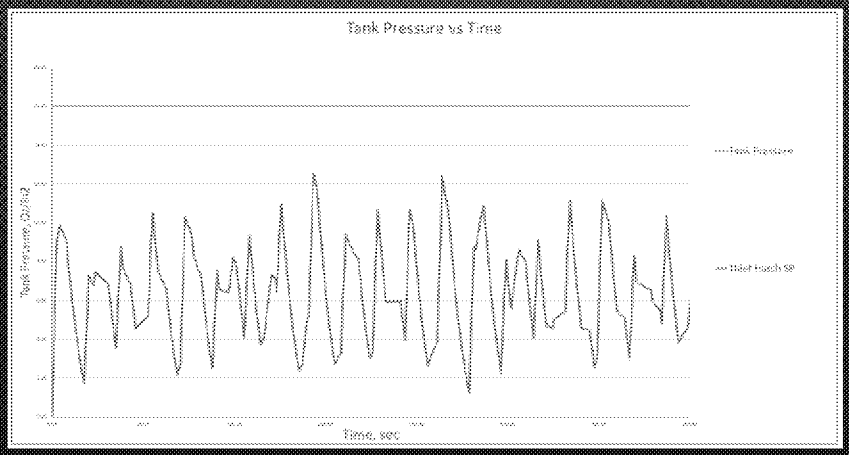


Qin > Qout
But Qin is on for 10 sec, off for 20 sec, on for 10 sec, etc

STEADY STATE ANALYSIS



TRANSIENT ANALYSIS



DESIGN SOLUTIONS

- Vapor Control System
  - Increasing vapor control system pipe size
  - Increase combustor capacity
  - Increase the number of combustors
  - Maintenance of thief hatches and other pressure relief devices
  - Increase Knockout Size
  - Above ground vent pipe
- Separator
  - Add orifices to separators to slow the flow of liquid (and flash gases) to the stock tanks.
  - Throttle dumps
  - Multiple stages of separation
  - Buffer bottles
  - Level Controller Adjustment
  - VRUs or HP ECDs off lower stages of separation

"Bigger sink drain pipe"
"Unclog the sink drain"

"Turn down the faucet"

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OPERATIONAL SOLUTIONS

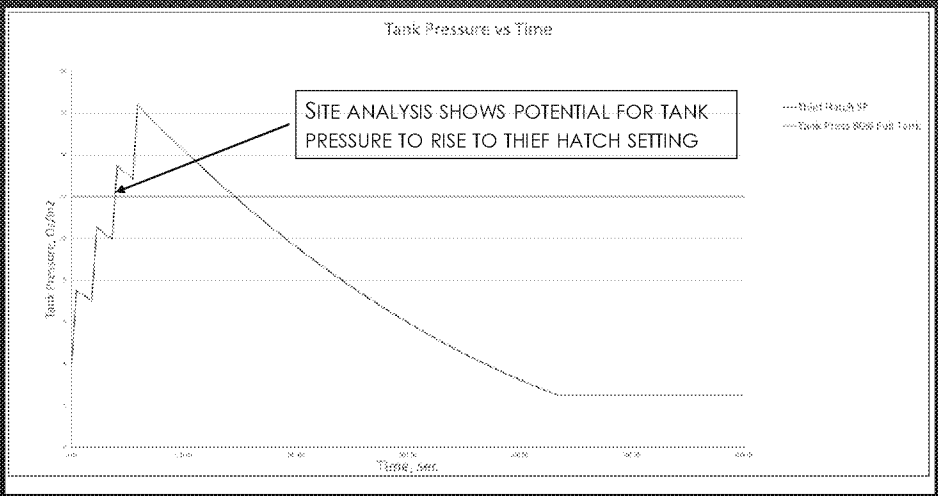
- Well
  - Change well timing to prevent simultaneous separator dumps
  - Reduce afterflow period to minimize well slug at next well cycle
  - Reduce chokes
  - Wellhead Compression
  - Plunger tools (reduce well slug size per run)

"Turn off or turn down water to your house"

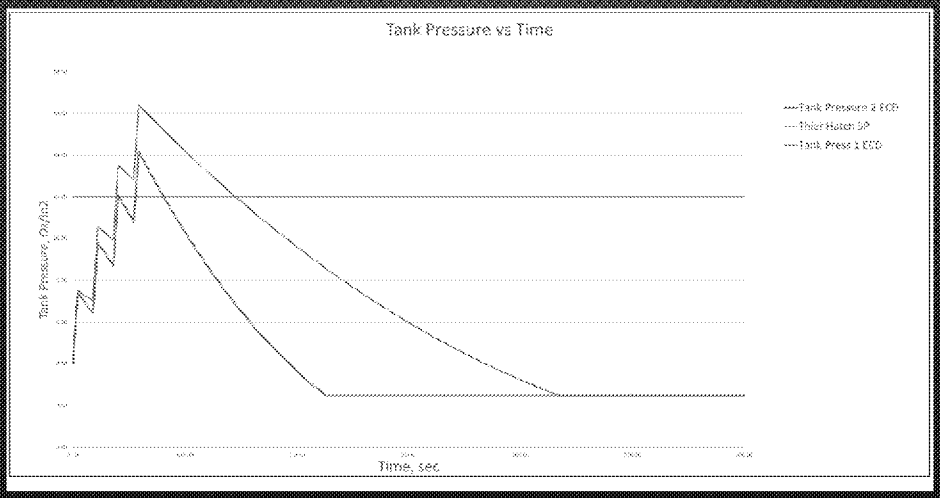
- Tanks
  - Controlling stock tank liquid level to a lower height
  - Thief hatch monitoring and maintenance
  - Blowout of underground piping
  - Periodic drain of Knockout Pots

"Bigger kitchen sink"

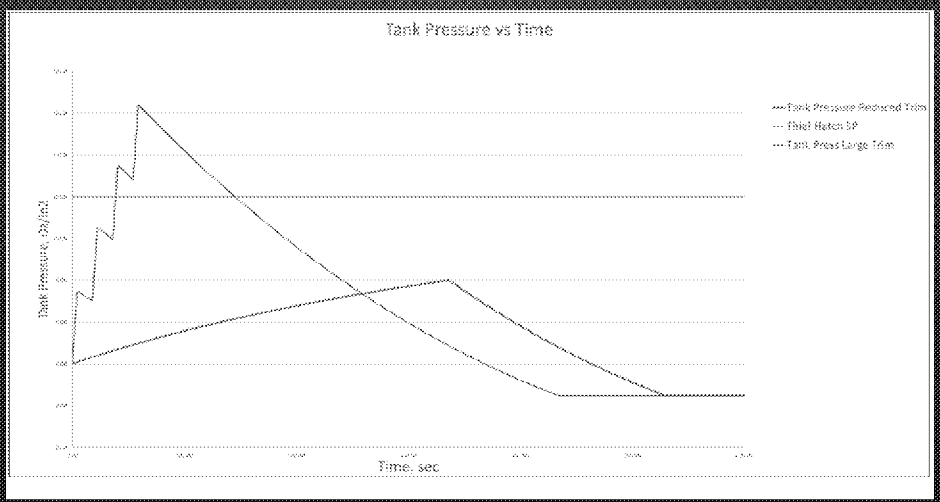
EXAMPLE


Tank Pressure vs Time
SITE ANALYSIS SHOWS POTENTIAL FOR TANK PRESSURE TO RISE TO THIEF HATCH SETTING
Tank Pressure, Oz/in2
Time, sec.

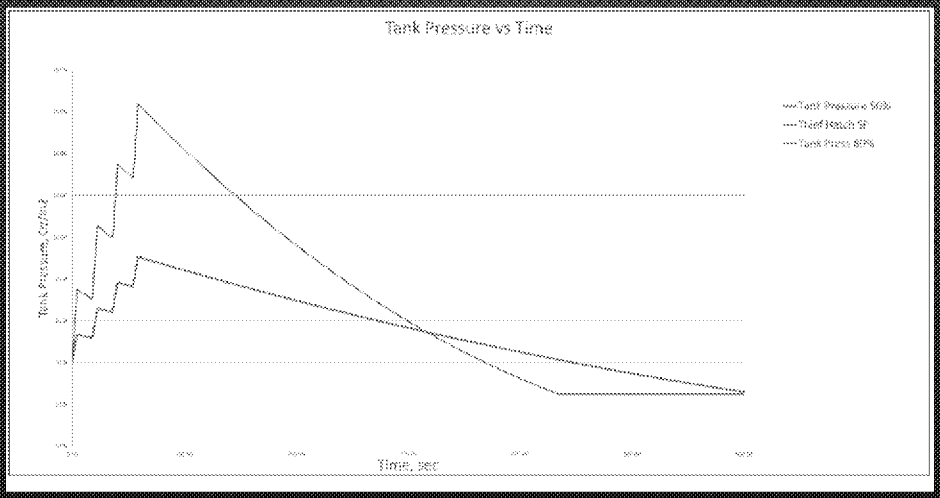
EXAMPLE: ADDING 1 ECD



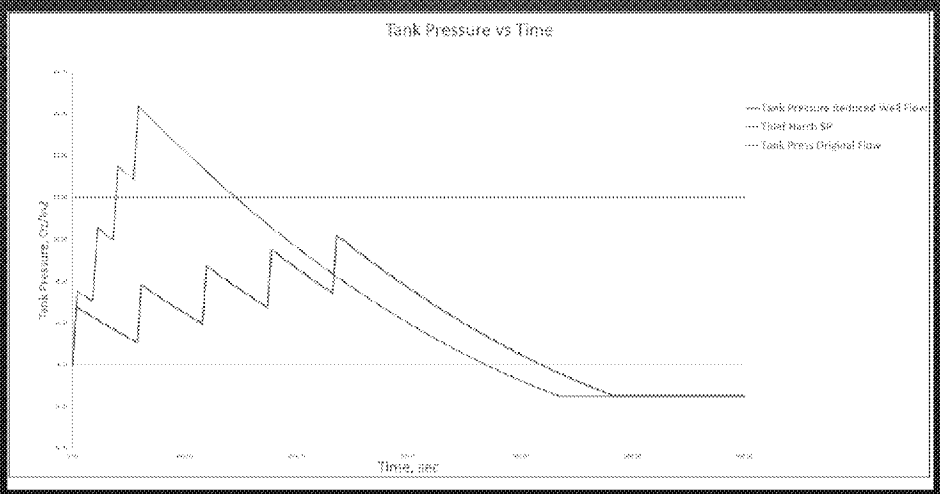
EXAMPLE: SEPARATOR DUMP TRIM



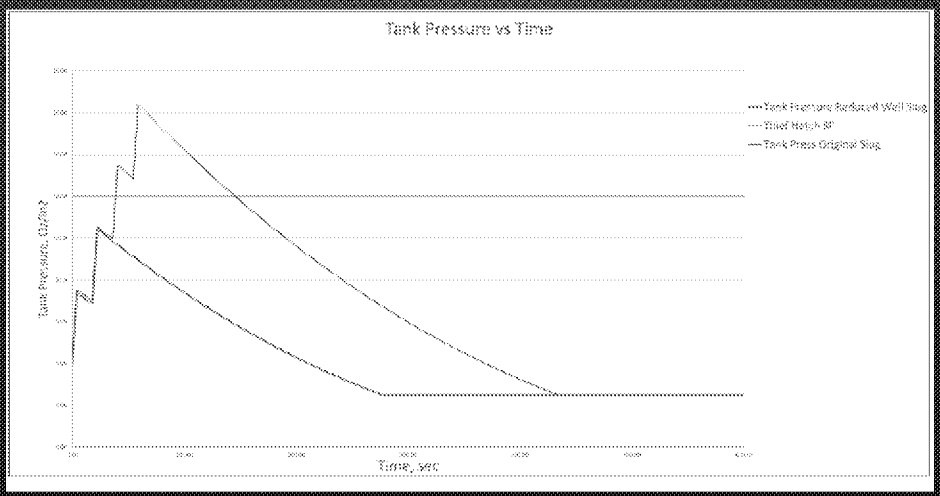
EXAMPLE: TANK LEVEL CONTROL



EXAMPLE: WELL FLOWRATE



EXAMPLE: WELL SLUG REDUCTION



OVERVIEW

- Work with Engineering to Develop Model
- Work with Engineering to Develop Design Mitigations that work best within budget but achieves goal of minimizing potential for PVRV lift.
- Re-evaluate when site operation changes, separator pressure increases, or site configuration changes.

WHAT DOES IT MEAN TO PROPERLY OPERATE AND MAINTAIN A TANK BATTERY?

"ALL CONDENSATE COLLECTION, STORAGE, PROCESSING AND HANDLING OPERATIONS, REGARDLESS OF SIZE, SHALL BE DESIGNED, OPERATED AND MAINTAINED SO AS TO MINIMIZE LEAKAGE OF VOLATILE ORGANIC COMPOUNDS TO THE ATMOSPHERE TO THE M

1. OPERATE WITH DESIGN PARAMETERS AND HAVE PROCESS TO REVISE DESIGN AS NEEDED
2. REGULARLY CONDUCT AND DOCUMENT FACILITY INSPECTION
3. RESPOND TO EMISSION OBSERVATIONS IN PRESCRIBED TIMEFRAME

DIRECTED INSPECTIONS

TRAINING & DOCUMENTATION

- AUDIO, VISUAL, AND OLFACTORY ("AVO") INSPECTIONS TO CHECK FOR EVIDENCE OF EMISSIONS OR OPERATIONAL ABNORMALITIES;
- INSPECT SEPARATOR PRESSURE, PRESSURE SET POINT, TEMPERATURE SET POINT, AND/OR PROPER DUMP VALVE OPERATION;
- INSPECT TANK THIEF HATCHES, PRVS, VALVES, AND/OR PIPING TO ENSURE COMPONENTS ARE PROPERLY SEALING AND/OR IN THE CORRECT POSITION FOR NORMAL OPERATION;
- INSPECT VAPOR CONTROL SYSTEM FOR PRESENCE OF PILOT LIGHT, ABSENCE OF SMOKE, A PROPERLY FUNCTIONING AUTO IGNITER, A PROPERLY FUNCTIONING CONTROL DEVICE, AND/OR DRAINING A LIQUID KNOCKOUT VESSEL

RELIABLE INFORMATION

- Any observation of emissions from a Tank System made by operator (including trained contractor) and/or government agency (including agent of government agency)
- Address emissions within 5 calendar days
  - As opposed to first attempt
  - As opposed to business days

"ALL CONDENSATE COLLECTION, STORAGE, PROCESSING AND HANDLING OPERATIONS, REGARDLESS OF SIZE, SHALL BE DESIGNED, OPERATED AND MAINTAINED SO AS TO MINIMIZE LEAKAGE OF VOLATILE ORGANIC COMPOUNDS TO THE ATMOSPHERE TO THE M

1. PREVENTATIVE MAINTENANCE PROGRAM
2. EVALUATION OF CORRECTIVE ACTIONS TO INFORM CHANGES TO MAINTENANCE PROGRAM
3. CONDUCT AND DOCUMENT PERIOD INSPECTION WITH IR CAMERA

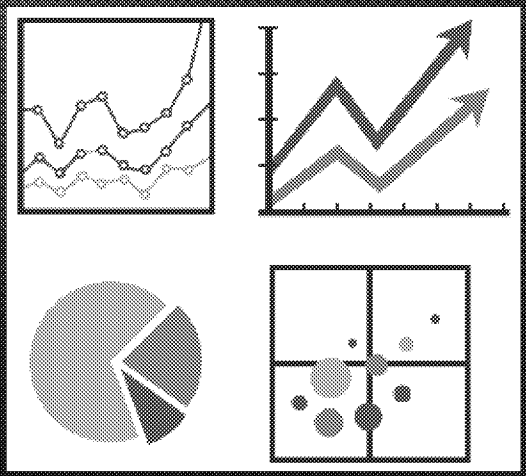
PREVENTATIVE MAINTENANCE

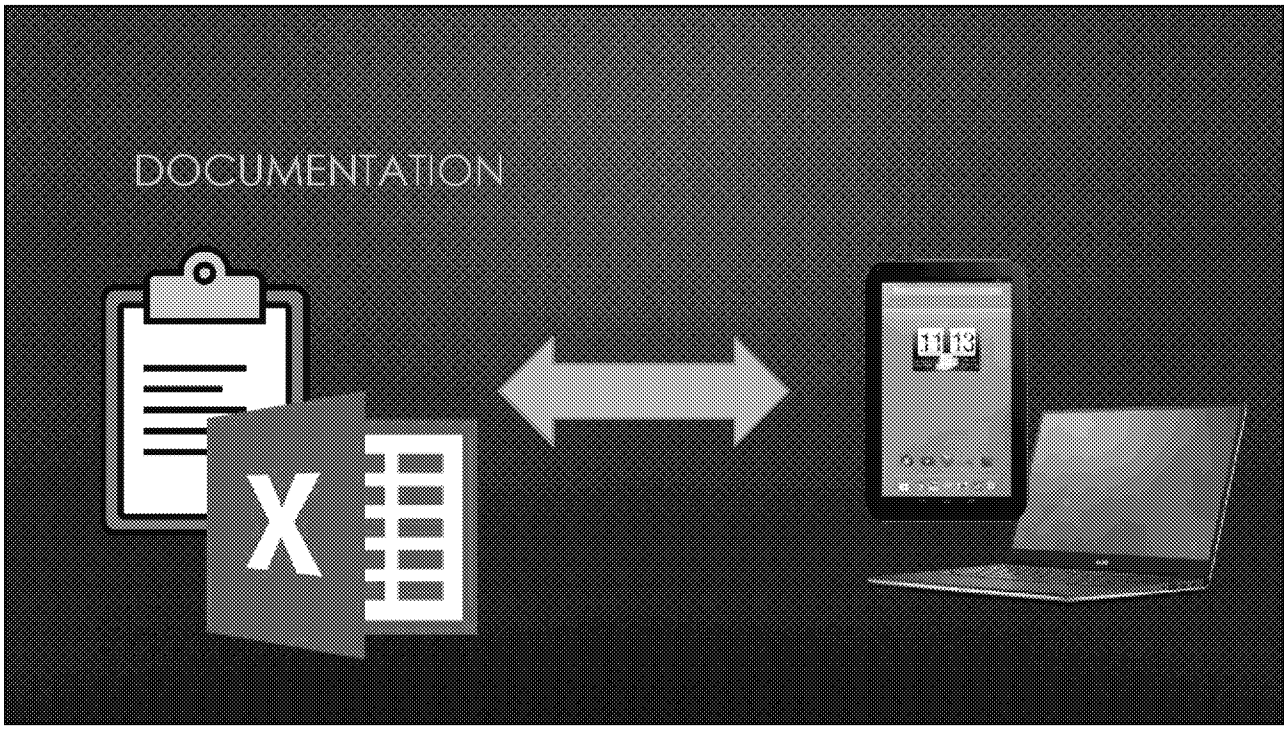
TRAINING & DOCUMENTATION

- INSPECT, CLEAN, AND IF NECESSARY REPLACE TANK THIEF HATCHES AND PRVS
- INSPECT AND IF NECESSARY CLEAN OR REPLACE VALVES OR COMPONENTS IN A VAPOR LINE (E.G. FLAME ARRESTORS)
- BLOW OUT VAPOR LINES TO ADDRESS POTENTIAL FLUID ACCUMULATION
- INSPECT EMISSION CONTROL DEVICES FOR PROPER OPERATION
- INSPECT AND IF NECESSARY REPLACE RESTRICTIONS IN LINES (E.G. RESTRICTION ORIFICE PLATES)
- INSPECT THE FACILITY EQUIPMENT WITH AN IR CAMERA

TREND ANALYSES

- GET AHEAD OF EMISSIONS
- REMEMBER: IF YOU DON'T DOCUMENT IT, IT DIDN'T HAPPEN




DOCUMENTATION
X
11
13

HOW DID OPERATORS REACT AFTER THE NOBLE CONSENT DECREE ANNOUNCEMENT?

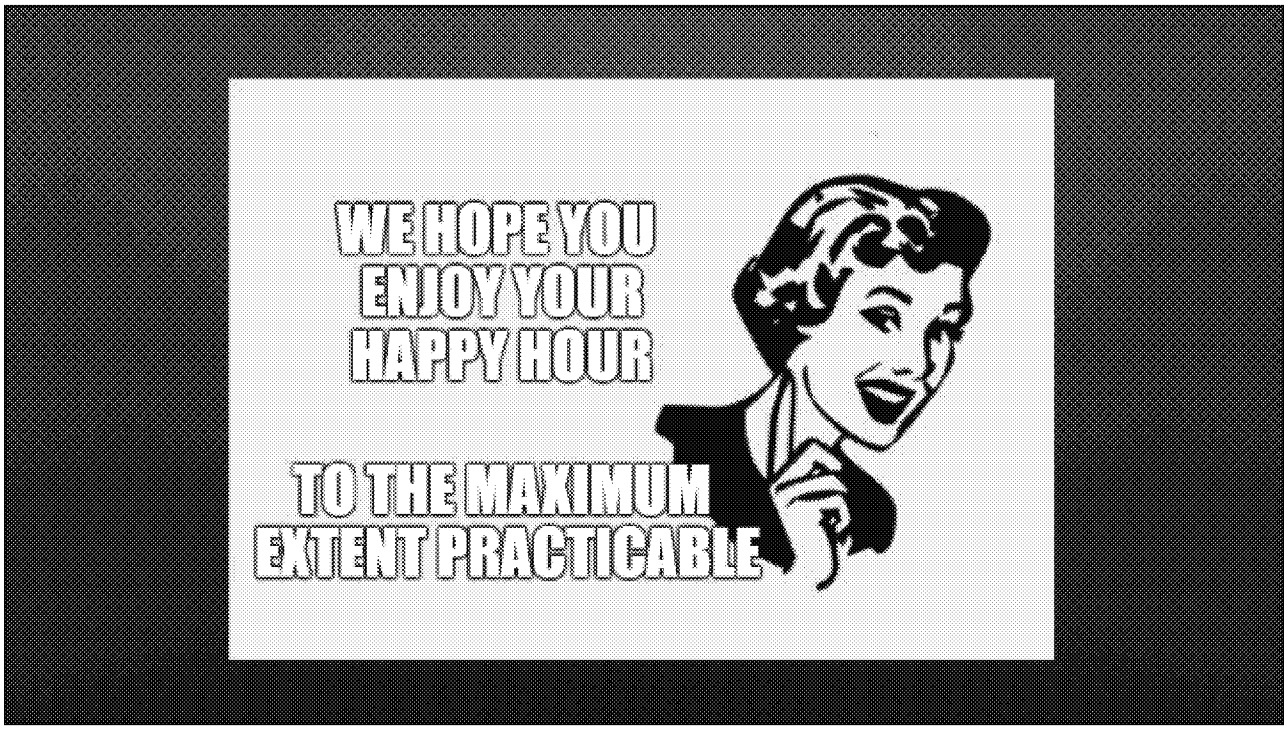
INITIAL REACTIONS
CHALLENGE ACCEPTED!

WHAT ARE DIFFERENCES IN SETTLEMENTS?

FEDERAL V. STATE

- INSPECTION FREQUENCIES
- FREQUENCIES OF TREND ANALYSES
- SALES/TRANSFERS/TERMINATION
- MITIGATION
- PENALTIES

WHAT'S NEXT?


WE HOPE YOU
ENJOY YOUR
HAPPY HOUR
TO THE MAXIMUM
EXTENT PRACTICABLE

Preparing for Regional Haze Phase II: Nuts and Bolts for Mining and Other Non-EGU Emission Sources

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Paper 9

PREPARING FOR REGIONAL HAZE PHASE II: NUTS AND BOLTS FOR MINING, OIL AND GAS, AND OTHER NON-EGU EMISSION SOURCES

I. Introduction

Many natural resources companies may have heard about the "regional haze" program under the Clean Air Act ("CAA") but may not have yet had any practical experience with this program or understand its potential impact on future operations. However, in the near future, natural resource companies in the western United States with significant air emissions are likely to become better acquainted with the regional haze program. Western states are in the early stages of planning for the second round of regional haze state implementation plans (RH SIPs). While round one RH SIPs mostly focused on larger and older emission sources such as coal-fired power plants, round two will cast a broader net to find the required emission reductions to improve visibility in national parks and wilderness areas ("Class I areas"). Because many natural resource companies operate relatively near Class I areas, states are likely to consider whether their emissions can be reduced to help meet state and national goals for visibility improvement. Now is a pivotal time for natural resource companies to become involved in the planning processes if they want to influence the RH SIPs for round two. This paper is meant to provide relevant background on the regional haze program as well as lessons learned from round one that can help natural resources companies make more informed decisions to best address their interests.

States must submit the second round of regional haze state implementation plans ("RH SIPs") to EPA by July 31, 2021. 82 Fed. Reg. 3078, 3116 (Jan. 10, 2017). While that may seem far away, the planning, modeling, cross-state consultations, and coordination with EPA for RH SIPs are intense and time consuming (taking years), and most states have already begun, or soon will begin, the planning process. For round two, the main focus of the RH SIPs will shift away from older coal-fired power plants and other large industrial sources requiring the Best Available Retrofit Technology ("BART"), as required by round one, to achieving "reasonable progress" from a much broader range of sources such as oil and gas production, mining, general industry and maybe even agriculture to achieve the required emission reductions.

During round one, EPA rejected, in whole or in part, the RH SIPs for several western states, including Wyoming, New Mexico, Utah, North Dakota, Arizona, Nevada, Oklahoma, Texas, and Colorado. EPA also issued a FIP for Montana, since Montana did not submit a RH SIP of its own. Many of these same RH SIPs or FIPs were challenged in court by states, regulated industry, and environmental groups, leaving a complicated legal trail with plant closures, fuel switching, pollution trading, and several unresolved or conflicting legal and policy issues in their wake. Round Two has the potential to be equally controversial and litigious.

Also during round one, large coal-fired power plants learned the importance of close involvement with state and federal regulators, the nuances of modeling versus actual monitoring data, and the need to document and exhaustively support any departures from standard methods. In addition, many facilities realized that fuel switching and closures are not off the table, that EPA versus state discretion can play a determining role in pollution control requirements and the

The views expressed in this paper are solely those of the author (or authors).
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costs of controls, and the difficulties of accounting for multiple discretionary considerations to achieve realistic and workable control requirements. These lessons can also be applied to round two.

II. New Industry Targets for Regional Haze Round Two

The regional haze program grants states and EPA considerable authority to require specific and costly emission reductions, and round one demonstrated that several states and EPA did not shy away from wielding this authority. At times EPA used its authority to disapprove state preferences, even in the face of substantial impacts on the affected sources. For round two, significant sources of NOx and SO2 in the western states likely will be particular targets.

a. Analysis of the oil and gas industry under "Reasonable Progress Goals"

The oil and gas industry is likely to be a key target in the western U.S. for round two of the RH SIPs. The oil and gas sector represents one of the larger sources of NOx and VOCs in many of western states. *See, e.g.*, EPA, Air Pollutant Emissions Trends Data, *available at* https://www.epa.gov/air-emissions-inventories/air-pollutant-emissions-trends-data. Further, the oil and gas sector was specifically targeted by some states and environmental groups during round one as a focus for further reasonable progress analysis. *See, e.g.*, 78 Fed. Reg. at 34763 (discussing Wyoming's reasonable progress analysis for oil and gas sources); EPA Response to Comments on Texas and Oklahoma Regional Haze SIP, at 646, 659 (Dec. 9, 2015), EPA-R06-OAR-2014-0754. It is likely the focus on the oil and gas sector will increase for round two, since many power plants were required to install the most stringent NOx controls during the first round or made other accommodations by fuel switching or adopting trading programs. These NOx reductions were often complex and expensive.

The lawsuit over Wyoming's RH SIP gives a preview of how environmental groups may present the case that the oil and gas industry should be further regulated to make the necessary reasonable progress for round two. As part of round one, environmental groups claimed EPA violated the RH Rules for reasonable progress by failing to require emission reductions from a sector that was a significant source of regional emissions:

> [H]ighly cost-effective NO_x controls for the oil and gas sector . . . are necessary for the State to make reasonable progress toward eliminating haze. As Wyoming recognized, oil and gas production is the second largest stationary-source category of haze pollution in the West, right behind coal-fired power plants.

Opening Brief of Respondent Powder River Basin Resource Council, et al., *Wyoming v. EPA*, 2014 WL 4257489, at 49 (10th Cir. Aug. 18, 2014). As discussed further in Section III.f, as part of their legal claims involving round one RH SIPs, the environmental advocacy groups essentially used the standards adopted by EPA in the most recent update to the regional haze rules: "The state may reject necessary controls only if it affirmatively demonstrates that specific controls are unreasonable based on 'the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of any potentially affected sources'." *Id.* In addition to NOx controls, commenters also

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claimed that VOC controls should be required for oil and gas production sources under the reasonable progress analysis. Their argument was that controls required in nonattainment areas were affordable and thus reasonable to improve visibility in all areas. *See* 79 Fed. Reg. 5032, 5202-03.

Several of the states that faced EPA FIPs for round one include oil and gas production as sizable sources of haze-producing emissions. In addition to Wyoming, oil and gas producers in Texas, North Dakota, Oklahoma, Colorado, Utah, California, and New Mexico are likely to face scrutiny for round two RH SIPs. Many other natural resources industries that produce large amounts of NOx or VOCs, such as mining, may face similar challenges.

b. Other potential areas of focus for Phase II

While emissions from other industrial sources in general are lower than coal-fired power plants, many of these power plants were required to install stringent controls during round one of the regional haze program or in combination with other CAA requirements, and thus may face less scrutiny during round two. Aside from power plants and the upstream oil and gas sector, the next most likely sources in western states include industrial sources with large boilers or processing plants, such as mines and manufacturing plants, gas processing plants, oil refineries, large internal combustion engines, and agricultural operations. *See, e.g.*, Minnesota Regional Haze Analysis, *available at* https://www.pca.state.mn.us/sites/default/files/haze-0507-rpg.pdf.

Fuel combustion and industrial processes such as oil refining represent the largest sources of SO2 across the United States. Reductions of SO2 have so far proven to have the greatest impact on visibility improvement, especially in the western U.S. Western states have greatly reduced SO2 emissions over the past decade. For example, the three states of Utah, Wyoming, and New Mexico, participating in the SO2 backstop program (an alternative regional haze program focused on reducing SO2 emissions), reported SO2 emissions in 2013 of 105,402 tons of SO2, well under the program cap of 185,795 tons. For these three states, "[t]he compliance dates show that SO2 emissions . . . are currently tracking to be below the 2018 milestone." 82 Fed. Reg., 45762, 45766 (Oct. 2, 2017) (New Mexico Progress Report). Because New Mexico, Utah, and Wyoming instituted the SO2 Backstop Trading program in round one, large industrial and combustion processes in these states may face less scrutiny than such sources in other western states. *See* 77 Fed. Reg. 74355.

The biggest sources of NOx emissions are mobile sources, fuel combustion, and industrial processes. Large emissions of NOx from combustion sources without extremely efficient controls may be particular targets. Arguably, the most controversial emissions control required in round one was a NOx control known as Selective Catalytic Reduction, or "SCR." SCR can cost from $50 million to almost $200 million per unit, depending upon the type and size of the electrical generating units, their location and elevation, and other technical considerations. While it is difficult to pinpoint a single cause for many coal-fired power plant shut-downs, across the western United States at least 16 power plants have chosen to shut down instead of installing SCR. Several other plants chose to change from coal to natural gas to avoid having to install SCR.

There are many cases were states found SCR or other pollution controls to be unreasonable or cost prohibitive. But EPA imposed at least a partial FIP in many of these states, and, in almost every instance, the FIP required much more expensive NOx pollution control devices than the state had found to be reasonable. Round one serves as a cautionary tale for states wishing to make the case that pollution reduction equipment like SCR is too expensive. These states should work closely with EPA and assemble the strongest possible case, even if EPA offers verbal assurances that it is likely to agree with a state's determination.

III. The Regional Haze Program: Past and Present

a. Background

Having established that natural resource companies need to get familiar with the regional haze program, it is time to get to know the program. The Clean Air Act has addressed "visibility impairment"[1] in some fashion for decades. In 1977, Congress added CAA § 169A, 42 U.S.C. § 7491, which "established as a national goal the 'prevention of any future, and the remedying of any existing, impairment in visibility in mandatory class I areas which impairment results from man-made air pollution.'"[2] In 1990, Congress amended the CAA to add section 169B, 42 U.S.C. § 7492, "Visibility." Section 169B of the CAA is primarily concerned with regional haze issues. It requires, "among other things, that EPA undertake research to identify 'sources' and 'source regions' of visibility in Class I areas, consider designating transport commissions to study the interstate movement of pollutants, and establish a transport commission for the Grand Canyon National Park." *Am. Corn Growers Ass'n v. EPA*, 291 F.3d 1, 4 (D.C. Cir. 2002). The regional haze program is unique among CAA programs in many ways, including its limited geographic scope (Class I areas); it is not a health-based program; and the subjectivity of the pollution control and visibility impact determinations.

The CAA contemplates that the States will have the primary role in developing plans to protect visibility in Class I areas (national parks, wilderness areas, etc.), known as regional haze state implementation plans, or RH SIPs. EPA has emphasized that RH SIPs "must assure reasonable progress towards the national goal of achieving natural visibility conditions in Class I areas." 77 Fed. Reg. at 33025. The RH Rules also establish the "deciview" as "the Principal metric or unit for expressing visibility." *See* 70 Fed. Reg. 39104, 39118. A deciview is determined by "using air quality measurements to estimate light extinction and then transforming the value of light extinction using a logarithm function." One deciview is intended to represent the level at which most people can detect a change in visibility. *See* 64 Fed. Reg. 35714, 35725 (July 1, 1999). The use of this metric can be confusing and controversial.

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[1] EPA has defined regional haze as "visibility impairment that is produced by a multitude of sources and activities which are located across a broad geographic area and emit fine particles (PM2.5) (e.g., sulfates, nitrates, organic carbon (OC), elemental carbon (EC), and soil dust), and their precursors (e.g., sulfur dioxide (SO2), nitrogen oxides (NOx), and in some cases, ammonia (NH3) and volatile organic compounds (VOC))." According to EPA, "Fine particle precursors react in the atmosphere to form PM2.5, which impairs visibility by scattering and absorbing light. Visibility impairment reduces the clarity, color, and visible distance that one can see." 77 Fed. Reg. 33023, 33024 (June 4, 2012).

[2] *Am. Corn Growers Ass'n v. EPA*, 291 F.3d 1, 3 (D.C. Cir. 2002) (citation omitted); *see also* 42 U.S.C. § 7491(a)(1).

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EPA adopted regional haze regulations that identify what must be included in a RH SIP. 40 C.F.R. §§ 51.308 and 51.309 ("RH Rules"). These regulations mandate criteria and guidelines that states must follow to establish "reasonable progress goals" and create a "long-term strategy." The RH Rules also require States to reassess and periodically revise their RH SIPs. In order to predict the deciviews of improvement that will result from required controls and emission limits, EPA requires RH SIPs to include a computer-based modeling demonstration. States normally work with EPA to develop a computer model that shows how the emission reduction measures in their RH SIPs will achieve the reasonable progress necessary for each affected Class I area. And, perhaps predictably, modeling and how to determine visibility improvement are often at the heart of disputes between states and EPA.

On January 10, 2017, EPA (under the Obama Administration) introduced significant changes to the RH Rules, mostly applicable to the second round of RH SIPs ("New RH Rules"). EPA claimed these changes were mostly administrative and would "continue steady environmental progress while addressing administrative aspects of the program." 82 Fed. Reg. at 3078. EPA issued the rule one week before the new Trump Administration took office and made the rule effective on the date it was issued (rather than the standard 30 days after issuance), claiming states did not require the normal additional 30 days to adjust their behavior and prepare for the rule since it was granting an extension of three years for the second phase RH SIPs. *Id.* at 3079. The New RH Rules change key requirements for RH SIPs. While these changes may appear minor on first glance, several states and sources that had gone through the first round of RH SIPs recognized that even these minor changes could have major effects on how the level of required controls is determined. Several states, industry sources, and others filed petitions challenging the New RH Rules both administratively with EPA and judicially with the D.C. Circuit Court of Appeals. *See Texas v. EPA*, No. 17-1021 (D.C. Cir. Mar. 15, 2017). The D.C. Circuit litigation is currently delayed while EPA evaluates "non-litigation alternatives," including through reconsideration *Id.* (EPA Motion to Extend Briefing Format Deadline, Sept. 15, 2017). EPA reports that it is reviewing several petitions for reconsideration of the New RH Rules, and just extended the deadline to January 22, 2018, to submit a proposal for briefing to the court.

The following sub-sections provide a brief overview of the RH Rules as they existed during the first planning period followed by an explanation of changes in these Rules for the second planning period, and, where applicable, the legal challenges to those amended rules.

b. Planning periods

Round One: The CAA requires that RH SIPs be regularly updated. The first state plans were due in 2007 and covered the 2008–2018 planning period. *See* 40 C.F.R. § 51.308(f) (pre-January 10, 2017). The regional haze statute does not establish a strict length for planning periods but instructs instead that states must develop RH SIPs that include, "a long-term (ten to fifteen years) strategy for making reasonable progress toward meeting the national goal." 40 U.S.C. § 7491(b)(2)(B).

Round Two: The second round of plans should have been due on July 31, 2018, but the new RH Rules extended the deadline to July 31, 2021. EPA claimed this extension was meant to

allow states to develop RH SIP revisions that are more integrated with state planning for the numerous other CAA programs that must be implemented during this time. In the 2017 rulemaking, EPA explained that the 2021 deadline was merely a delay of the RH SIP submission deadline, and that the second planning period still ran through 2028. EPA merely moved "the deadline for the submission of the next periodic comprehensive SIP revisions" while leaving "the end date for the second implementation period at 2028." 82 Fed. Reg. at 3117. Since then, however, EPA has clarified that the second planning period does not commence until 2021. *See* 82 Fed. Reg. at 48330 ("the end of the first planning period of the first long-term strategy for Texas is 2021"). EPA also modified the requirements for periodic comprehensive revisions of SIPs and certain requirements related to the timing and form of progress reports. These changes mean that some progress reports do not have to be submitted as SIPs, reducing the administrative burden associated with the reports.

c. BART requirements

Round One: BART[3] controls and limits were an extremely important part of the first round of RH SIPs. Every first round RH SIP was required to include a BART analysis for every "BART-eligible" source.[4] To be "BART eligible," a source had to fall within certain classes of large stationary sources, such as coal-fired power plants and refineries, and had to come into existence between 1962 and 1977.[5] Interpretation and application of BART controls were at the heart of most round one disputes between EPA, the states, affected industry, and special interest groups over RH SIPs in the western United States. The RH Rules also allowed states to avoid BART by either establishing a trading program or presenting a BART Alternative program that achieved greater reasonable progress than BART. 40 C.F.R. § 51.308(e). Many of these "BART Alternative" programs were also challenged in court. *See, e.g.*, *WildEarth Guardians v. EPA*, 770 F.3d 919 (10th Cir. 2014).

Round Two: While BART is not required for round two, BART analyses and legal issues from round one are informative for affected sources in round two. For example, BART determinations included complicated cost and visibility improvement analyses that can inform LTS determinations for round two. Also, during the first planning period, BART generally satisfied the reasonable progress analysis for BART-eligible sources, and in many cases for the entire state. However, as explained by the RH Rules, unlike BART, which was enforceable, "[t]he reasonable progress goals established by the State are not directly enforceable but will be considered by the Administrator in evaluating the adequacy of the measures in the implementation plan to achieve the progress goal adopted by the State." 40 C.F.R. §

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[3] "BART" is defined as "an emission limitation based on the degree of reduction achievable through the application of the best system of continuous emission reduction for each pollutant which is emitted by an existing stationary facility"; the emission limit is to be established on a case-by-case basis in consideration of five statutory factors. CAA section 169A(g)(2), 42 U.S.C. § 7491(g)(2); 40 C.F.R. § 51.301.

[4] 40 C.F.R. § 51.308(e) ("The State must submit an implementation plan containing emission limitations representing BART . . . .").

[5] The BART requirement applies to only certain emitting units ("BART-Eligible Sources"). Specifically, the BART requirements applies to: (1) "'major stationary sources' from 26 identified source categories which have the potential to emit 250 tons per year or more of any air pollutant;" that (2) "were put in place during a specific 15-year time interval." 40 CFR Part 51 Appx. Y § I(C)(1); CAA § 169A(b)(2)(A).

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51.308(d)(1)(v); *see also Nat'l Parks Conservation Ass'n v. McCarthy*, 816 F.3d 989, 992 (8th Cir. 2016). As discussed below, the long-term strategy is the enforceable component that will be the focus of round two RH SIPs.

d. Uniform Rate of Progress

Round One: The rate of progress needed to reach natural visibility conditions by 2064 (the national goal) is referred to as the "uniform rate of progress" ("URP," or the "glidepath"). During the first round, the URP was a key metric used to establish Reasonable Progress Goals (*see* next subsection) and to determine the emission reduction measures needed to achieve a sufficient rate of progress over the period of the RH SIP to achieve the national goal ("longterm strategies," or "LTS"; *see* subsection III.f below). 40 CFR 51.308(d)(1). In other words, the URP was the measuring stick used to determine if the RH SIP would make sufficient progress towards the national goal. EPA explained the steps for establishing the URP: (1) Compare baseline conditions to natural conditions; (2) calculate the average visibility improvement needed each year to reach natural conditions by 2064; (3) multiply the annual average by the number of years in the planning period. *See* EPA Memorandum, *Guidance for Setting Reasonable Progress Goals under the Regional Haze Program*, (June 1, 2007), *available at* https://www3.epa.gov/ttn/naaqs/aqmguide/collection/cp2/20070601_wehrum_reasonable_progress_goals_reghaze.pdf. During round one, the URP essentially served as the goal for the amount of visibility improvement needed from the RH SIPs, and, some would even argue, as a ceiling.

Round Two: For round two, EPA has adjusted the relationship between the URP, RPGs, and LTS. This change is discussed under sub-section III.f below. In addition to adjusting the relationships, EPA is also putting increased focus on anthropogenic sources to determine the URP. Under the New RH Rules, EPA modified the set of days used to track progress towards natural visibility conditions with the goal of focusing more attention on days where anthropogenic sources under state control have the greatest impact. EPA claimed to provide additional ways to exclude emissions from events such as wildfires and gave states additional flexibility to exclude emissions from anthropogenic sources outside the United States and from certain types of prescribed fires. As EPA explained, while it had initially relied on averaging to deal with non-anthropogenic impacts, "data available through the IMPROVE monitoring network indicate that in many Class I areas 5-year averages are not sufficient for minimizing these erratic impacts. As a result, visibility improvements resulting from decreases in anthropogenic emissions can be hidden by this natural variability." 82 Fed. Reg. at 3084.

The New RH Rule allows states to adjust the 2064 natural conditions (i.e. the national goal or the endpoint for the URP), by taking international emissions into account. EPA must approve states' methodology as part of the final RH SIP review. However, EPA declined to allow states to adjust their baseline emissions for international influences. *Id.* at 3103-05.

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e. Reasonable Progress Goals

Round One: To ensure continuing progress towards achieving the natural visibility goal, EPA requires RH SIPs to include "reasonable progress goals" ("RPGs") for each Class I area. 40 C.F.R. § 51.308(d), (f). The RH Statute explains,

> in determining reasonable progress there shall be taken into consideration [1] the costs of compliance, [2] the time necessary for compliance, and [3] the energy and nonair quality environmental impacts of compliance, and [4] the remaining useful life of any existing source subject to such requirements . . . .

42 U.S.C. § 7491(g)(1) ("the Four Factors"). The RH Rules establish additional requirements for setting RPGs. States must provide for an improvement in visibility for the most impaired days over the (approximately) 10-year period of the SIP, and ensure no degradation in visibility for the least impaired days over the same period. In establishing RPGs, states are required to analyze the Four Factors (similar to four of the five factors used for BART determinations) to determine the appropriate level for the RPGs. According to EPA, "states must demonstrate in their SIPs how these factors are considered when selecting the RPGs for the best and worst days for each applicable Class I area." 77 Fed. Reg. at 33026.

The RPGs are tied to Class I areas and may require cross-state consultation. "In setting RPGs, each state with one or more Class I areas ('Class I state') must also consult with potentially 'contributing states,' i.e., other nearby states with emission sources that may be affecting visibility impairment at the state's Class I areas. 40 CFR 51.308(d)(1)(iv). In determining whether a state's goals for visibility improvement provide for reasonable progress toward natural visibility conditions, EPA is required to evaluate the demonstrations based on the Four Factors developed by the state pursuant to paragraphs 40 CFR 51.308(d)(1)(i) (RPGs) and (d)(1)(ii) (justification for any RPGs that are slower than needed to attain the national goal). 40 CFR 51.308(d)(1)(iii)." *Id.*

During round one, if a state set RPGs that were not sufficient to attain the URP, the state had to justify why the RPGs were reasonable while more progress to achieve the URP was not reasonable, and how long it would take to achieve natural conditions if the selected rate is continued. 40 CFR 51.308(d)(1)(B)(ii). During round one, several states set RPGs below the URP, some of which were approved by EPA, and others which were not. *See, e.g.*, 81 Fed. Reg. at 299 (agreeing with Texas that the URP was unreasonable but disapproving Texas' RPGs); 79 Fed. Reg. 5032, 5037 (approving Wyoming's determination of RPGs that were below the URP).

Round Two: Because the concepts of RPGs and LTS are closely tied and have been adjusted by the New RH Rules for round two, they are discussed together in the Round Two part of the following sub-section.

f. Long Term Strategy

Round One: The "long term strategy" ("LTS") "is the means through which the State ensures that its RPG will be met." EPA, Guidance for Setting Reasonable Progress Goals under the Regional Haze Program, at 1-3 (2007). In other words, the RPG is the "goal," and the LTS is

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the means by which that goal will be achieved. Section 169A(b) of the CAA and 40 CFR 51.308(d)(3) require states to include in their RH SIPs a 10 to 15 year long-term strategy for making "reasonable progress." An LTS is a compilation of all control measures a state will use during the planning period to meet applicable RPGs and must include "enforceable emissions limitations, compliance schedules, and other measures as necessary to achieve the reasonable progress goals" for all Class I areas within, or affected by emissions from, the state. 40 CFR 51.308(d)(3); 77 Fed. Reg. at 33027. Thus, unlike the RPGs, the LTS is enforceable. "Once a State has adopted a reasonable progress goal and determined what progress will be made toward that goal over a 10-year period, the goal itself is not enforceable. All that is 'enforceable' is the set of control measures which the State has adopted to meet that goal." *Texas v. EPA*, 829 F.3d 405, 413 (5th Cir. 2016).

The LTS is comprehensive and should include analysis for different types of significant emission sources, including "point" and "area" sources that could include mining and oil and gas operations. Specifically, the RH Rules require that the following be considered when creating an LTS: "(1) Emission reductions due to ongoing air pollution control programs, including measures to address reasonably attributable visibility impairment ("RAVI"); (2) measures to mitigate the impacts of construction activities; (3) emissions limitations and schedules for compliance to achieve the RPG; (4) source retirement and replacement schedules; (5) smoke management techniques for agricultural and forestry management purposes including plans as currently exist within the state for these purposes; (6) enforceability of emissions limitations and control measures; and (7) the anticipated net effect on visibility due to projected changes in point, area, and mobile source emissions over the period addressed by the LTS." 40 CFR 51.308(d)(3)(v). Mining and oil and gas sources could be impacted by the LTS through items (2), (3), (4), and (7).

Round Two: Under the New RH Rules, the LTS and the RPGs are not limited by the URP. The New RH Rules shift the LTS from methods identified by a state to achieve the RPGs to all feasible controls that a state can reasonably require, and the RPGs are established after, and based upon, the LTS. Under the New RH Rules, instead of requiring states to set RPGs to meet the URP for the planning period, EPA claims it has always required states to make as much progress as reasonably possible for each planning period, which is enacted through the LTS:

> The rate of progress in some Class I areas may be meeting or exceeding the uniform rate of progress (URP) that would lead to natural visibility conditions by 2064, but this does not excuse states from conducting the required analysis and determining whether additional progress would be reasonable based on the four factors.

82 Fed. Reg. at 3080. EPA changed the rules from requiring sources to "achieve" reasonable progress (as evidenced by meeting the RPGs) to requiring sources to "make" reasonable progress, which EPA defines as "the improvement in visibility resulting from **implementation of the measures you have found to be reasonable**." *Id.* at 3093 (emphasis added). So instead of setting RPGs to meet the URP, states are required to set their RPGs at the level "that will be achieved by the emission reductions resulting from all reasonable control measures." *Id.* EPA also suggests that the LTS should be set based on individual source evaluations. *See* 82 Fed. Reg. at 3092. These changes are likely to have the biggest impact on round two RH SIPs

because states must now convince EPA that they have considered all potential reductions from all reasonable (even individual) sources, and must justify a decision not to require controls based on the four reasonable progress factors (cost, energy and environmental impacts, time to implement, and remaining useful life).

These changes mean that natural resource industries with significant emissions of NOx, SO2 and VOCs are likely to face closer scrutiny by environmental groups, states and EPA. Even if an area is meeting the URP, proponents of additional reductions can argue that affordable controls are available to reduce emissions from these sources. *See* Section II.a above regarding environmental groups' use of this argument in Wyoming during round one. Several sources have challenged these changes as contrary to the RH Statute and beyond EPA's authority. *See, e.g.*, Northwestern Corporation, Statement of Issues, *Texas v. EPA*, No. 17-1075 (D.C. Cir. April 14, 2017). UARG claims that requiring states to achieve visibility improvements beyond the URP exceeds EPA's authority and violates the CAA and principles of cooperative federalism. UARG, Statement of Issues, *Texas v. EPA*, No. 17-1075 (D.C. Cir. April 14, 2017).

g. EPA's Power to Issue a Federal Implementation Plan to Replace a RH SIP

Round One: If a state fails to create a RH SIP as required by the RH Rules, EPA must create a replacement, known as a regional haze federal implementation plant ("RH FIP"). EPA's authority to issue a RH FIP has been a source of conflict with many states and affected sources.[6] The CAA defines a "Federal Implementation Plan," or "FIP", as "a plan (or portion thereof) promulgated by the [EPA] Administrator to fill all or a portion of a **gap** or otherwise correct all or a portion of an **inadequacy** in a State implementation plan." 42 U.S.C. § 7602(y) (emphasis added). In other words, EPA may only create a FIP if a state fails to take the necessary actions required under the CAA. The scope of EPA's FIP authority is the subject of considerable policy debate and case law.

During round one, EPA argued that its authority to issue a FIP regarding the regional haze programs is broad, and triggered by a state's failure to timely submit RH SIPs with all required elements, or if a state fails to correctly apply the required elements as determined by EPA.[7] During round one, several states, along with the affected sources, argued that EPA lacked authority to issue a RH FIP or that EPA overstepped its authority when it issued FIPs that merely enacted EPA's preferences for controls over the state's. There is some case law that limits EPA's SIP review and FIP issuance authority.[8] However, arguments that notice of the

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[6] *See, e.g.*, *Oklahoma v. EPA*, 723 F.3d 1201, 1223 (10th Cir. 2013); *Arizona ex rel. Darwin v. U.S. E.P.A.*, 815 F.3d 519, 532 (9th Cir. 2016); *North Dakota v. U.S. E.P.A.*, 730 F.3d 750, 761 (8th Cir. 2013).

[7] EPA stated regarding a proposed RH FIP for Wyoming that once it finds a state "has failed to make a required submission, EPA is required to promulgate a FIP within two years unless the state submits a SIP and the Agency approves it within the two-year period." 78 Fed. Reg. at 34742.

[8] "With regard to implementation, the [CAA] confines the EPA to the ministerial function of reviewing SIPs for consistency with the [CAA]'s requirements." *Luminant Generation Co., LLC v. EPA,* 675 F.3d 917, 921 (5th Cir. 2012) (citing § 110(k)(3)). As the court in *Luminant* explained, if the State's submissions "satisfy those basic requirements [found in § 110], the EPA must approve them," and "[t]hat is the full extent of the EPA's authority in the SIP-approval process because that is all the authority that the CAA confers." *Id.* at 932. *See also Arizona ex rel. Darwin v. U.S. E.P.A.*, 815 F.3d 519, 532 (9th Cir. 2016) ("Congress intended that EPA, not the states alone, ultimately ensure that state determinations as to regional haze comply with the Act, and so authorized EPA to

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disapproval of all or part of a SIP is a prerequisite to promulgation of a FIP, that EPA's failure to obtain public comments on a state's RH SIP prior to proposing a RH FIP deprives the state of an opportunity to correct any "deficiencies," or that courts should presume a state's RH SIP is reasonable and place the burden of proof on EPA before it may issue a FIP have been rejected. *See, e.g.*, *Oklahoma v. EPA*, 723 F.3d 1201, 1223 (10th Cir. 2013); *Arizona ex rel. Darwin v. U.S. E.P.A.*, 815 F.3d 519, 532 (9th Cir. 2016). Likewise, the courts have accorded considerable deference to EPA in decisions to disapprove a state's RH SIP and to issue a RH FIPs.

Round Two: EPA Administrator Scott Pruitt, who was Oklahoma's attorney general during the *Oklahoma* case, has indicated that "[t]he days of coercive federalism are over."[9] In Administrator Pruitt's view, "Many environmental statutes empower the states to serve as stewards of their lands and environments. Embracing federalism, EPA can work cooperatively with states to encourage regulations instead of compelling them and to respect the separation of powers."[10] While these sentiments are welcome to several states that feel their discretion was not respected during round one, and the New RH Rules continue articulate the important role of states in the regional haze program, the contests over specific control technology requirements as determined by state authority or through the issuance of FIPs are likely to continue during round two. *See* Section IV.d in the next section for a discussion of lessons learned regarding cooperative federalism during round one.

h. Anthropogenic Sources

Round One: The Regional Haze program requires states to use the 20 percent "most impaired" and 20 percent "least impaired" visibility days to make calculations for baseline and current visibility conditions at the Class I Areas as well as the URP (and thus RPGs). During the first planning period, these days were defined as the haziest days based on "the monitored days with the lowest and highest actual deciview levels regardless of the source of the particulate matter causing the visibility impairment." 82 Fed. Reg. at 3101.

Round Two: For the second round, EPA re-defined the "most impaired" visibility days as those days with the most *anthropogenic* impairment. EPA issued draft guidance to help states make this determination, but it is not requiring any particular method, and promises to issue further guidance. *Id.* at 3102. EPA also made minor adjustments to how states may account for emissions originating outside the United States. But several sources have challenged the new rules as providing inadequate procedures for states to deal with pollution sources not under their or EPA's control. For example, Texas claims that the New RH Rules do not provide sufficient procedures for states to account for international sources of pollution and thus require states to impose more stringent controls than should be required. *See, e.g.*, Texas, Statement of Issues, *Texas v. EPA*, No. 17-1075 (D.C. Cir. April 14, 2017). UARG, an industry group, claims that

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disapprove state analysis that is neither reasoned nor moored to the Act's provisions." (citations and internal quotations omitted)).

[9] Scott Pruitt, EPA Administrator, Letter to Governors (March 30, 2017), *available at* https://www.epa.gov/sites/production/files/2017-03/documents/ky_bevin.pdf.

[10] Scott Pruitt, EPA Administrator, Memorandum to EPA Administrators, Adhering to the Fundamental Principles of Due Process, Rule of Law, and Cooperative Federalism in Consent Decrees and Settlement Agreements (Oct. 16, 2017), *available at* https://www.epa.gov/sites/ production/files/2017-10/documents/signed_memorandum_in_support_of_consent_decree _and_settlement_agreement_oct162017.pdf.

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states are the authority that should determine the correct way to deal with non-local emission sources. *See UARG v. EPA*, No. 17-1075 (D.C. Cir. April 14, 2017) (New RH Rule "fails to recognize properly the breadth of states' discretion to exclude, in their assessments of reasonable progress and development of regional haze SIPs, the effects of emissions from anthropogenic sources that are located outside the United States and the effects of emissions from certain categories of fires.").

IV. Important lessons for round two RH SIPs

With BART mostly consigned to history as a round one requirement, the New RH Rules and their standards for measuring reasonable progress and establishing long-term strategies will be the most likely battle sites for round two. Because the regional haze program allows states and EPA to apply broad policy factors to determine the controls for specific sectors or even specific sources, there are no silver bullets to ensure that natural resource companies can avoid costly controls during round two. Control decisions will involve analysis of how many emission reductions are enough to achieve reasonable progress, whether a state conducted sufficient analysis of sources and sectors, and what costs are reasonable or unreasonable for emission reductions. Round one involved the more defined control and cost analysis standards for BART. However, even with a more defined rulebook, there were many disagreements over each of these issues, and several states and EPA accused each other of inconsistent policies and outcome driven results. Despite the many disagreements and inconsistencies, the subsections below attempt to articulate lessons from round one that can help natural resources companies better navigate and prepare to conduct the reasonable progress analyses for round two that will determine control requirements.

a. The role of URP: While no longer determinative of the Reasonable Progress Goals, a state's progress on the URP will still be an important indication of the level of justification needed for the Long-Term Strategies and the corresponding level of scrutiny to anticipate.

One key factor that will influence a state's analyses, and EPA's approval, of the required emission reductions is whether the Class I area in question is meeting the URP. If it is not, the state must justify any RPGs/LTS that are not adequate to achieve the URP. Even if EPA has approved a state's determination that meeting the URP is not reasonable, any subsequent state determination that further reductions are unreasonable based on costs (or another of the four factors) will be subject to closer scrutiny. *See, e.g.*, *North Dakota v. EPA*, 730 F.3d 750, 764 (8th Cir. 2013) ("This determination allowed the State to implement a slower rate of progress but it also obligated the State to demonstrate that its reasonable progress goals were reasonable.").

During the first round several states claimed to be ahead of their RPGs, and used this to justify not imposing additional control requirements during that planning period. However, for a state like Texas that had found meeting the URP was not reasonable, EPA seemed to subject such claims to very close scrutiny[11]:

[11] Texas determined that achieving the URP was not reasonable and, in cooperation with surrounding states, had adjusted its RPGs accordingly. Thus, although Texas surpassed its RPGs, it had not achieved the URP or glide path. EPA agreed with Texas that the URP was unreasonable but disapproved Texas' alternative RPGs because it claimed

> Specifically, we find that Texas did not satisfy several of the requirements of the regional haze rule . . . with regard to setting reasonable progress goals, most notably the requirement to reasonably consider the four statutory reasonable progress factors . . . and the requirement to adequately justify reasonable progress goals that are less stringent than the uniform rate of progress . . . .

81 Fed. Reg. at 299. EPA imposed a FIP on Texas that required more stringent RPGs. However, the Fifth Circuit found that Texas had a high likelihood of showing EPA acted arbitrarily and capriciously in rejecting Texas' RPGs and imposed a stay. *Texas v. United States Envtl. Prot. Agency*, 829 F.3d 405, 428 (5th Cir. 2016). EPA is currently reconsidering the Texas FIP RPG findings.

In addition to potentially stricter scrutiny by EPA, environmental advocacy groups are likely to argue both that many states are failing to achieve the URP and that this failure makes higher cost controls reasonable. As claimed by the National Parks Conservation Association, at current rates of improvement, only 10% of our national parks will achieve natural levels of clarity in 50 years. *See* HEAL Comments, http://uphe.org/wp-content/uploads/2016/08/Regional-Haze-Rule-2016-comments-PDF.pdf.

The reality of whether a state is meeting the URP is complicated. As explained by the Western Regional Air Partnership ("WRAP"), both natural conditions and the causes of haze are changing. In the western U.S., EPA admits that natural sources such as wildfires or dust overwhelm anthropogenic reductions on the haziest days. *See* 82 Fed. Reg. at 3084. Further, western Class I areas have almost double the visual range of eastern areas. Notwithstanding this background, the round one RPGs for many western states were not sufficient to achieve the URP, which is generally used as the benchmark for sufficient progress. *See* WRAP, Teach-In 2, Glide Path, Uniform Rate of Progress, Natural Conditions, and Data for Regional Haze Planning, *available at* https://www.wrapair2.org/RHPWG.aspx. Providing background on how wildfires, international emissions, and other non-anthropogenic sources have influenced the particular URP at issue in a RH SIP will be very important to help strengthen arguments against unreasonable constraints on anthropogenic sources.

b. Group vs. source-specific analysis: States have discretion over the scope of analysis required to prove reasonable progress.

When determining whether reasonable progress will occur (based on the Four Factors of costs, time for compliance, energy and nonair quality environmental impacts, and remaining useful life), it is not uncommon for disagreements over the scope of the necessary analysis to arise. With the inexact nature of modeling and predictions, there is always more a state could do to prove that reasonable progress will occur. Regional planning organizations such as the Western Regional Air Partnership ("WRAP") and the Central Regional Air Planning Association provide broad but sophisticated modeling and reasonable progress analyses that provide a regional perspective and accommodate the regional haze program requirements for inter-state

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Texas' analysis "was not appropriately refined, targeted, or focused on those sources having the most significant and potentially cost-effective visibility benefits." 81 Fed. Reg. at 299.

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consultation. States also often conduct the four-factor reasonable progress analyses by industry sector and rely on existing emission inventories to predict future impacts. In the New RH Rule, EPA explained that it "has consistently interpreted the CAA to provide states with the flexibility to conduct four-factor analyses for specific sources, groups of sources or even entire source categories, depending on state policy preferences and the specific circumstances of each state." 82 Fed. Reg. at 3088. The scope of sector analyses may be less resource intensive than measuring predicted visibility impacts from potential specific technologies as applied to specific sources. However, at different times during round one environmental groups and EPA tried to force states to expand the scope of their RH SIP analyses to the source-specific level in order to prove reasonable progress.

For example, when challenging a reasonable progress determination in the New Mexico SIP, environmental groups contended that the state should have specifically accounted for emissions from one of its largest coal-fired power plants (that was not subject to BART) as part of its reasonable progress determination. *WildEarth Guardians v. EPA*, 770 F.3d 919, 941 (10th Cir. 2014). However both EPA and the court upheld New Mexico's reasonable progress determination without the source-specific analysis. Instead of analyzing that specific plant, New Mexico relied on regional analyses from WRAP and also included source-specific analysis for three petroleum refineries. Even though the power plant was one of the state's largest emission sources, the court explained, "[W]e reject the environmental groups' argument that the EPA had to engage in a source-specific analysis for a reasonable-progress determination. Nothing in the Regional Haze Rule or the Clean Air Act required New Mexico to conduct a four-factor analysis of the Escalante plant." *Id.* at 944. It is also significant that New Mexico's reasonable progress determinations came in the context of the state not meeting the URP for the first round.

The Fifth Circuit Court also rejected EPA's attempt to require a source-specific analysis. In Texas, EPA claimed the state's analysis of visibility impacts by groups of sources was inadequate and "obscured the benefits of potentially cost-effective controls." *See* 81 Fed. Reg. at 297. Based on this disapproval, EPA "substituted its own source-specific analysis examining the particular costs and benefits of emissions from particular power plants." *Texas v. EPA*, 829 F.3d at 427. EPA's analysis resulted in significantly more expensive controls for those sources. However, the Fifth Circuit held that:

> EPA's requirement that Texas conduct a source-specific analysis is not supported by the Clean Air Act or the Regional Haze Rule. . . . EPA must defer to Texas's goals so long as the Texas goals comply with the Act.

Id. at 428; *see also Arizona ex rel. Darwin v. EPA*, 815 F.3d 519, 539-40 (9th Cir. 2016) (upholding EPA decision not to conduct source-specific analysis).

In the New RH Rule preamble, EPA addressed the source-specific issue. EPA agreed with the Fifth Circuit that reasonable progress does not require source-specific analysis of the four factors. However, EPA then explained that it does have the authority to evaluate and reject a state's determination of the set of sources considered as well as the controls selected for a set of sources: "If a state's analysis fails to do so, for example, by arbitrarily including costly controls at sources that do not meaningfully impact visibility or failing to include cost-effective controls at sources with significant visibility impacts, then the EPA has the authority to disapprove the

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state's unreasoned analysis and promulgate a FIP." 82 Fed. Reg. at 3088. EPA also suggests that the LTS should be set based on individual source evaluations. *See* 82 Fed. Reg. at 3092. Since the RPGs will now be derived from the LTS, these analyses are, in essence, what was rejected in *Texas v. EPA* by the Fifth Circuit Court. The sheer number of oil and gas sources may make source-specific analysis impracticable for the sector. However, larger natural resource sources are likely to face this issue from either environmental groups or EPA.

c. Calculating costs and what is cost effective: Because costs are the key consideration in the reasonable progress analysis, be sure to extensively support cost calculations, what costs should be included, what costs are reasonable, and the relationship of costs to visibility improvements.

Costs are the first of the four factors that must be considered in the reasonable progress analysis. While costs seem to be an objective measure where standards could be set and compared between states, in reality, the costs in RH SIPs are usually incredibly complicated. And the costs states and EPA found to be reasonable in round one were often inconsistent and continued to escalate through the planning period. Early on, EPA issued guidance where it found that BART controls costing more than $1,500/ton could be considered unreasonable. *See* 70 Fed. Reg. 39104, 39135-36. However, by the end of the first planning period, Colorado found (and EPA approved) costs for SCR as high as $6,299/ton as reasonable.[12] *See* 77 Fed. Reg. at 18068 (Mar. 26, 2012) (Colorado RH SIP). Cost determinations for BART were often inconsistent and confusing, and because the cost calculations were so complex, courts often deferred to EPA and its outside experts rather than wading into the weeds. However, the regional haze statute's clear requirement that cost be taken into consideration and a few key cases provide adequate precedent to push back when a state's or EPA's cost analyses are flawed or illogical.

First, it is important to remember that for round two states and EPA will be dealing with a wider range of smaller sources and emission reductions than the older coal-fired power plants of round one. Because the reasonable progress cost standards are less defined than those for BART, it is hard to predict what level of costs states and EPA will find to be reasonable in round two. While not enough to establish a pattern, there are a few examples of states and EPA using the reasonable progress analysis to determine what costs were reasonable. In Wyoming, EPA upheld the state's finding that for the oil and gas sector, costs of $900 to $2400 per ton of NOx removed were not reasonable. As EPA explained, "[T]his range of costs is not so low that we are prepared to disapprove the State's determination in the reasonable progress context." 79 Fed. Reg. 5032, 5203 (Wyoming Final Rule). Under the Montana FIP, EPA also found that costs for SCR were unreasonable for a newer power plant that was subject to a reasonable progress analysis rather than BART. EPA found costs of approximately $4,600 per ton for a 0.265 deciview improvement to be unreasonable in Montana. On the reasonable side, EPA found costs of approximately $600 per ton for a 0.2 deciview improvement reasonable for newer power plants in North Dakota in a similar situation. *Nat'l Parks Conservation Ass'n v. EPA*, 788 F.3d 1134, 1149 (9th Cir. 2015). In contrast, EPA upheld Colorado's BART costs of $6,299/ton as reasonable using a BART analysis. *See* 77 Fed. Reg. at 18068 (Mar. 26, 2012) (Colorado RH

[12] In this case, EPA proposed that SCR was not reasonable for Craig Unit 2. However, it accepted the state's determination that SCR was BART based on an agreement between the state and the operator.

SIP). In determining the reasonableness of costs, it is common to use some type of "cost and visibility improvement" analysis, which combines both elements to determine the impact.

Several BART cost analyses from round one also offer important boundaries for cost considerations. One of the most important lessons is to ensure emissions and reductions are used properly in relation to the baseline to determine costs. In the case of an EPA FIP for North Dakota, EPA refused to consider emission reductions from control equipment installed after the baseline but before the BART analysis. EPA claimed it was "not reasonable to consider [the emission reductions gained by pollution] controls installed after the baseline period." EPA claimed that if this were allowed, sources would install controls early "to avoid installing more effective BART controls later." 77 Fed. Reg. 20,894, 20,927 (April 6, 2012). However, the Eighth Circuit rejected EPA's method because the plain language defining BART in the regional haze statute requires EPA to consider "any" existing controls, including "controls installed after the baseline period" when making cost estimates. *North Dakota v. EPA*, 730 F.3d at 761–62. For the Utah FIP, PacifiCorp claimed EPA was using the same approach, resulting in a dramatic undervaluation of the required control costs. According to PacifiCorp, by ignoring existing equipment, EPA gave credit for approximately 50% more emission reductions to the proposed control equipment than it should have. This resulted in a much lower cost per ton for the FIP's SCR requirement. *See* PacifiCorp Opening Brief, *Utah v. EPA*, No. 16-9542, at 52-53 (10th Cir. Mar. 17, 2017). While the four factors for reasonable progress do not include consideration of existing control equipment, as these cases demonstrate, establishing an appropriate baseline and taking existing equipment into account has a dramatic impact on the first factor—the costs of compliance. These cases may be used to bolster such arguments in the reasonable progress context.

EPA's BART guidance also states that costs that would cause a source to shutdown or to adopt fuel switching are presumed to be unreasonable. *See* BART Guidelines, 70 Fed. Reg. 39104, 39164 (July 6, 2005) ("it is not our intent to direct States to switch fuel forms, e.g., from coal to gas"). However, many would argue that BART requirements for coal-fired power plant EGUs caused several plant shutdowns or fuel-switching from coal to natural gas to avoid the high costs of installing SCR. EPA claims such decisions were a market choice of the operators rather than an unavoidable result of requiring extraordinarily expensive controls as BART. *See, e.g.*, U.S. Chamber of Commerce, EPA's New Regulatory Front: Regional Haze and the Takeover of State Programs (2012), *available at* https://www.uschamber.com/sites/default/files/documents/files/ 1207_ETRA_HazeReport_lr_0.pdf. Again, these are BART considerations, but they can provide useful analogies for reasonable progress cost determinations.

Finally, during round one EPA resisted attempts to link costs directly to visibility improvements, preferring instead the "dollars-per-ton" approach. While a "dollars-per deciview" metric would have made cost comparisons easier, EPA rejected Oklahoma's dollars-per-deciview analysis as flawed and replaced it with a dollars-per-ton analysis that was upheld by the Tenth Circuit Court. *Oklahoma v. EPA*, 723 F.3d 1201, 1221 (10th Cir. 2013). EPA claimed that "while the metric can be useful if thoughtfully applied, we view the use of the $/deciview metric as suggesting a level of precision in the calculation of visibility impacts that is not justified in many cases."

One important difference for costs for round two is that the EPA guidance on cost determinations was mandatory for certain BART sources, while it remains mere guidance for non-BART sources. *See* 70 Fed. Reg. 39104, 39108. However, EPA often applied the guidance as requirements even for non-BART sources, and the costs found "reasonable" in the first round seemed to continually escalate. Thus the best advice for determining "reasonable progress" costs is to be familiar with the type of costs EPA has said can and can't be included; assemble the best and most straight-forward calculation methodology possible; engage experts early on to provide evidence and explanations for why the costs are accurate and why the determination of reasonableness or unreasonableness is sound; and consult with the state throughout the process.

d. State vs. federal roles: EPA's determinations will carry great weight with most courts. However, if an EPA error or overreach can be clearly articulated, there is precedent for courts to side with a state.

Many states believe that Congress granted them broad discretion in the regional haze SIP process and that, conversely, EPA's role is limited. This view is supported by general statements regarding the CAA and cooperative federalism as well as EPA statements relating specifically to the regional haze program. Courts have consistently upheld the ideal of states playing the leading role in establishing SIPs. As explained by the D.C. Circuit Court, "EPA determines the . . . standards of air quality—but Congress has given the states the initiative and a broad responsibility regarding the means to achieve those ends through state implementation plans and timetables of compliance." *Virginia v. EPA*, 108 F.3d 1397, 1408 (D.C. Cir. 1997) (internal quotation marks omitted). And the Fifth Circuit has taken the strongest positions in support of the state's role, claiming that there is "a congressional preference that states, not EPA, drive the regulatory process." *Texas v. EPA*, 829 F.3d at 411. EPA has also recognized that "the Act and legislative history indicate that Congress evinced a special concern with insuring that States would be the decision makers." 70 Fed. Reg. 39,104, 39,137 (July 6, 2005). However, in practice, due to other competing doctrines (Chevron deference, rulemaking review standards, etc.) courts are apt to support EPA decisions unless a clear error in EPA's reasoning or calculations can be identified.

EPA has never explicitly disagreed with the statements on the states' leading role, but EPA has also argued forcefully in litigation over round one RH SIPs that it has overriding authority to determine the "reasonableness" of a state's actions and to disapprove a RH SIP and issue a RH FIP if the state's plan is not "reasonable." In one of many examples, in regards to the Wyoming RH SIP, EPA declared that "the state's BART analysis and determination **must be reasonable in light of the overarching purpose of the regional haze program.**" *See* 77 Fed. Reg. at 33,026, (emphasis added). EPA then relied on this "reasonableness" standard to reject parts of Wyoming's BART determinations.[13] EPA's belief that it can reject portions of a state's RH SIP if it finds them not to be "reasonable in light of the overarching purpose of the regional haze program" can lead to strange results. When reviewing the RPGs for the Wyoming RH SIP, EPA rejected the RPGs for units 1 and 2 of PacifiCorp's Dave Johnston power plant. Here, EPA

[13] *See e.g.,* 77 Fed. Reg. at 33,052 ("We find that it was unreasonable for the State not to determine that LNBs with OFA plus SNCR was NO_x BART for Dave Johnston Unit 3"); 77 Fed. Reg. at 33,055 ("We find it was unreasonable for the State not to determine that LNBs with OFA plus SNCR was NO_x BART for Wyodak Unit 1")

admitted that Wyoming had "provided a four factor analyses that adequately evaluated the required factors" for these two units, but then concluded "it is also appropriate for this facility to consider a fifth factor for evaluating potential reasonable progress control options – the degree of visibility improvement that may reasonably be anticipated from the use of reasonable progress controls." 77 Fed. Reg. at 33,055. EPA did not apply this "fifth" factor to other RPG analyses in Wyoming, [14] nor has it consistently applied the "fifth" factor to other RPG analyses in the West. These examples serve as a warning that EPA may require states to consider additional factors even when the CAA clearly requires only four factors be analyzed. *See* 42 U.S.C. § 7491(g)(1).

The Tenth Circuit essentially endorsed EPA's ability to override a state's determination based on EPA's interpretation of whether the state RH SIP complies with the RH Rules. In the Oklahoma case, although Oklahoma claimed to have followed the RH Rules, EPA disapproved a portion of Oklahoma's RH SIP based on a disagreement with the way costs were calculated. EPA determined that Oklahoma's projected costs to install an SO2 scrubber were unreasonable and therefore could not support the state's decision to reject the scrubber as BART. "EPA said that Oklahoma did not properly take into consideration the costs of compliance when it relied on cost estimates that greatly overestimated the costs of dry and wet scrubbing to conclude these controls were not cost effective." *Oklahoma v. EPA*, 723 F.3d 1201, 1206 (10th Cir. 2013) (quotation marks and citations omitted).

While Oklahoma argued that EPA had exceeded its authority by overriding the state's BART determination and choice of calculation methodology, the Tenth Circuit held EPA's imposition of a FIP was justified: "[W]hile it is undoubtedly true that the statute gives states discretion in balancing the five BART factors, it also mandates that the state adhere to certain requirements." The Court dismissed Oklahoma's complaint that "EPA's action tramples on the discretion that Congress afforded states to make these decisions." *Id.* at 1207. Instead, the Court attempted to clarify the limits of EPA's authority to overturn a state's decisions: "EPA did not reject the petitioners' BART determination because it disagreed with the way it balanced the five factors. It rejected the BART determination because it failed to follow the guidelines—as required by the statute—in calculating one of those factors." *Id.* at 1209. However, as many states learned during round one, the difference between a disagreement over balancing factors and a violation of a regulatory or statutory requirement is often in the eye of the beholder. Thus the battle over the discretionary power of states versus EPA is likely to continue during round two. Several sources have already asserted cooperative federalism claims against the New RH Rules, claiming that EPA exceeded its authority by forcing states to adopt specific controls and use specific methodologies to demonstrate reasonable progress. *See, e.g.*, Texas and Alaska, Statement of Issues, *Texas v. EPA*, No. 17-1075 (D.C. Cir. April 14, 2017).

e. Modeling: Do your best to anticipate which modeling approach the state and/or EPA may use and ensure models are used and vetted appropriately.

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[14] For both the oil and gas sources and the Mountain Cement Company plant, the other RPG sources analyzed in Wyoming, EPA disagreed with Wyoming's reasonable progress analysis and found "cost effective" NO_x controls could be employed, but EPA did not require those NO_x controls because the costs were "not so low that we are prepared to disapprove the State's conclusion in the reasonable progress context." 77 FR 33,042-43.

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During round one, EPA came to rely almost completely on the 98th percentile modeling results from the CALPUFF model[15] to determine whether a SIP achieved adequate reasonable visibility progress, even when the modeling results were contradicted by actual monitoring data. This is ironic, since the New RH Rules recognize that, in the western United States, the pollutants from non-anthropogenic sources such as wildfires or international sources regularly overwhelm U.S. anthropogenic sources on the haziest days. *See* 82 Fed. Reg. at 3081, 3084 ("the 'worst' visibility days in some Class I areas can be impacted by irregularly occurring natural emissions (e.g., wildland wildfires and dust storms)").

In certain situations, EPA insisted that the 98th percentile result from the CALPUFF model was the most appropriate method for predicting visibility impacts and refused to consider other models, other versions of CALPUFF, or even contrary monitoring data. For example, in Utah, EPA dismissed the state's presentation of 90th percentile results from a CALPUFF model, claiming that it ignored too many of the poorest visibility days (even though in the New RH Rules EPA admits many of these days are impacted by wildfire, etc.). 81 Fed. Reg. at 43899. Further, EPA refused to recognize the state's analysis that actual visibility **monitoring** data undermined the 98th percentile results. *Id.* at 43900. However, since round one, EPA has issued new modeling guidelines that removed CALPUFF as a preferred model and recommended instead photochemical grid models such as CAMX or CMAQ. 82 Fed. Reg. 5192, 5196.[16] Thus new models with new protocols and limitations will be used for round two.

In using these new models, one modeling lesson from round one remains very important. Models are inexact predictions that operate within a margin of error, and are reliant on the chosen inputs to the model. Natural resource companies need to understand these models, their use and limitations, and how these limitations may impact emission control decisions. During round one, EPA at times relied on computerized modeling results to support significant control equipment costs for nearly imperceptible visibility benefits. The Ninth Circuit Court found such reliance concerning and rejected EPA's explanations that it need not justify its use of a model even when the projected visibility benefit fell within the model's margin of error. The Court found that EPA could not support the statutorily required "reasonable anticipation of visibility improvement" when the supposed improvement was within the model's margin of error. *Nat'l Parks Conservation Ass'n v. EPA*, 788 F.3d 1134, 1146 (9th Cir. 2015).

i. Modeling Sub-lesson: Secondary issues such as background levels of ammonia can have a significant impact on model outcomes.

Among the many CALPUFF model inputs for regional haze modeling, the choice of background ammonia levels in the environment have become important. EPA's well-established position is that ammonia background is a critical factor for accurate CALPUFF modeling,[17] and

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[15] The CALPUFF modeling system is "[a] non-steady-state puff dispersion model that simulates the effects of time- and space-varying meteorological conditions on pollution transport, transformation, and removal. CALPUFF can be applied for long-range transport and for complex terrain." https://www.epa.gov/scram/air-quality-dispersion-modeling-preferred-and-recommended-models.

[16] EPA made special note that CALPUFF was still the appropriate model to use for BART determinations. *Id.*

[17] *See, e.g.*, Interagency Working Group on Air Quality Monitoring, Phase 2 Summary Report and Recommendations for Modeling Long Range Transport Impacts (Dec. 1998) at 14, EPA-454/R-98-019, *available at* https://www3.epa.gov/scram001/7thconf/calpuff/phase2.pdf ("IWAQM").

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that it is "preferable to use actual monitoring data to determine background ammonia concentrations." EPA, Response to Comments for Utah Revisions to Regional Haze State Implementation Plan, Docket No. EPA-R08-OAR-2015-0463 at 325. *See also* Montana RH Final Rule at 57867 (monitoring data is preferable to the uniform default values); Navajo Generating Station RH TSD at 118 ("Expanded ammonia monitoring would be desirable"); WY RH Final Rule at 5,117 ("We agree . . . the background ammonia concentration has a significant effect on model predicted visibility impacts.").

However, during round one, EPA did not allow alternative ammonia background levels for the state of Utah, even though available data showed that the uniform default value of 1 ppb was much too high for the winter months. Although Utah found that ammonia levels were an important consideration in its modeling, and that monitoring data showed that ammonia was lower than the uniform default value insisted upon by EPA, especially in the winter, EPA did not consider the impact of alternative ammonia background levels. Instead, EPA adopted the standard ammonia background level of 1 ppb for all times of the year, claiming there was not enough data to support use of a lower or seasonal level of ammonia. *See* EPA, Response to Comments for Utah Revisions to Regional Haze State Implementation Plan, Docket No. EPA-R08-OAR-2015-0463, at 151-52, 321 (June 1, 2016).

In contrast, EPA allowed an adjustment to the ammonia levels used for the North Dakota and Montana RH SIPs based on a single, multi-year study that had been conducted in North Dakota. *See* 77 Fed. Reg. at 57,867. EPA allowed use of the adjusted levels in Montana, even though the study was not conducted in a neighboring state. In Wyoming, EPA also relied on a multi-year study and allowed Wyoming to adjust the background ammonia levels from 2 ppb to 0.5 for the model. 79 Fed. Reg. at 5111. Using lower background ammonia numbers for the Wyoming modeling resulted in dramatically lower predicted visibility improvement for BART sources. For example, for Jim Bridger Unit 1, the predicted visibility improvement from installing SCR controls shifted from 0.82 deciviews in the Proposed Rule (using the higher background level) to 0.37 deciviews (using the lower level), meaning the higher ammonia levels more than doubled the projected improvements. *Compare* 78 Fed. Reg. at 34754, Table 8 and 79 Fed. Reg. at 5,040, Table 5. For Wyoming, EPA also relied on the need for representative ammonia background levels to reject one commenters' modeling of projected visibility impacts from oil and gas production, which used a 1 ppb ammonia background level rather than 0.5 ppb. 79 Fed. Reg. at 5204.

The new models that will be used in round two may or may not be impacted by the ammonia background. Sources and states should investigate this element early in the process with their modelers and EPA. Beyond ammonia, impacted industries should pay close attention to other regional haze modeling inputs and how adjustments to specific inputs can impact the outcome.

Because of the variability of modeling, Luminant, a Texas utility company, claims that EPA unreasonably gives very little weight to actual monitoring data in comparison with modeling data, resulting in skewed analyses that require more stringent controls than necessary to make reasonable progress. *See, e.g.*, Luminant and Big Brown Paper Company, Statement of Issues, *Texas v. EPA*, No. 17-1075 (D.C. Cir. April 14, 2017). Utah has raised a similar

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argument in its dispute against EPA's FIP. *See* Utah Motion to Stay, *Utah v. EPA*, 16-9542, at 17-18 (10th Cir. Mar. 17, 2017) (outlining how monitoring data refuted the modeling results that EPA relied on to require controls costing hundreds of millions of dollars).

f. Departing from the norm: Do it only if you must, and if you do it, provide strong support for how and why you did it, including modeling if possible.

Round one showed that sources should be very cautious if relying on alternative methods to calculate costs, justify control decisions, or measure visibility improvement. The Eighth Circuit rejected North Dakota's attempt to use an alternative method to calculate costs for reasonable progress. North Dakota tried to apply the "dollars-per-deciview" approach, which used existing conditions as a baseline. While the Court acknowledged that "the State was free to employ its own visibility model and to consider visibility improvement in its reasonable progress determinations, it was not free to do so in a manner that was inconsistent with the CAA." *North Dakota v. EPA*, 730 F.3d 750, 766 (8th Cir. 2013). The Court agreed with EPA that North Dakota's model did not provide an acceptable analysis of reasonable progress towards the national goal. *Id.* EPA similarly dismissed Utah's attempts to use the results from visibility modeling of the 90th percentile day (instead of the 98th percentile day) as well as monitoring results to show that the state's preferred BART controls would have greater visibility impacts than EPA's preference of SCR. *See* 81 Fed. Reg. at 43899-90. Other states had more success with alternative methods. However, the success was often associated with the outcome rather than the specific alternative method. For example, EPA seemed to give broader leeway for alternatives to states that either included the selection of SCR as BART or the shut-down of a BART source as part of the package. *See, e.g.*, 80 Fed. Reg. 19220 (approving Arizona SIP with alternative that included converting one coal-fired unit to natural gas); 76 Fed. Reg. 38997 (approving Oregon SIP alternative that included the shut down of a coal-fired plant by 2020).

g. Timing of emission reductions: The New RH Rules have clarified that controls need not be installed or achieve emission reductions during the current planning period.

EPA has now clarified that RPGs and LTS that extend beyond a planning period are appropriate. This is a departure from the first planning period, where EPA seemed to want it both ways. First, EPA insisted that BART controls be implemented before the end of the first planning period. *See, e.g.*, *See e.g.* 79 Fed. Reg. 5,032, 5,055, 5,170 (Jan. 30, 2014) (Wyoming); 77 Fed. Reg. 24,385, 24,387 (April 24, 2012) (Maine); 77 Fed. Reg. 72,512, 72,534 (Dec. 5, 2012) (Arizona). However, when delays in issuing a SIP or FIP (which states often argued were caused by EPA) made this impossible, EPA argued that the period for installation of controls could extend into the next planning period. *See, e.g.*, 81 Fed. Reg. at 43925 (extending the deadline for Utah to install controls to 2021); 81 Fed. Reg. at 347 (extending deadlines for Texas to install controls to 2019 and 2021). The Fifth Circuit Court of Appeals held EPA to its standard practice of insisting that controls be installed in the first planning period, and stayed implementation of the Texas FIP. *Texas v. EPA*, 829 F.3d 405, 430 (5th Cir. 2016).

In response to the Texas case, EPA clarified in the New RH Rules that "when considering the time necessary for compliance, a state may not reject a control measure because it cannot be

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installed and become operational until after the end of the implementation period." 82 Fed. Reg. at 3089. Thus, for the second round, long-term strategy control requirements may extend beyond the current planning period. This decision is being challenged by UARG. UARG, Statement of Issues, *Texas v. EPA*, No. 17-1075 (D.C. Cir. April 14, 2017).

V. Conclusion

The regional haze program is complex and involves numerous technical, policy, and discretionary considerations that can make outcomes hard to predict. Because of this, round one resulted in numerous contested determinations in RH SIPs and FIPs. With so many factors that can impact control decisions, natural resources companies in the west with significant air emissions would be wise to get involved early in the planning processes for the states and Class I areas that may be affected by their emissions. Close involvement and a solid understanding of the methods, policies, and decision makers that will determine pollution control requirements will provide the best opportunity to ensure that the final RH SIPs for round two contain realistic and workable control requirements for your sector and your company's individual sources.

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Preparing for Regional Haze Phase II: Nuts and Bolts for Mining, Oil and Gas, and Other Non-EGU Emission Sources

Marie Bradshaw Durrant
Blaine Rawson
Ray Quinney & Nebeker

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Regional haze is caused when sunlight encounters small particles in the air, comprised of sulfates, carbon, fine and course particulate matter, sea salt, and nitrates.

Regional Haze Basics

- Statutory Authority: 169 A and B of the Clean Air Act
- Applicable Regulations: 40 CFR 51.308 and .309
- Based on development and implementation of state implementation plans.
- Designed to achieve “natural” visibility by 2064.
- The improvement to achieve the 2064 natural visibility goal is to be done gradually and consistently: Uniform Rate of Progress (“URP”).

Regional Haze Program Basics

- **<u>"Reasonable Progess" is key:</u>** RH SIPs "must assure **reasonable progress** towards the national goal". 77 Fed. Reg. at 33025.
- **<u>State/Federal Responsibilities:</u>** States have primary role in developing plans to protect visibility in Class I areas. EPA to evaluate state plans for compliance with CAA and RH Rules.

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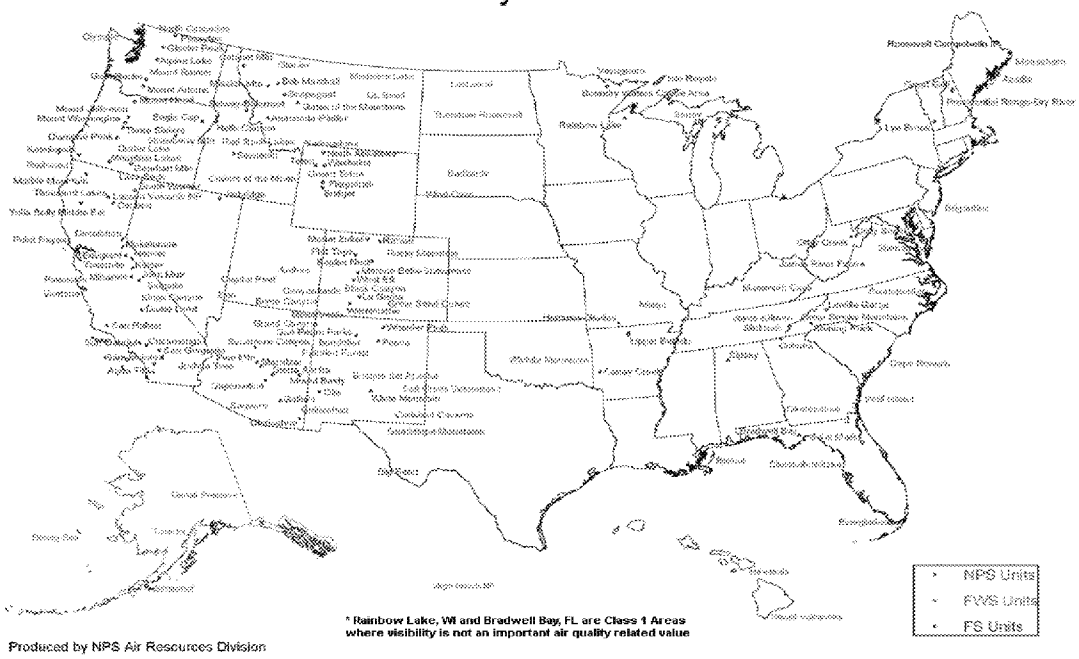
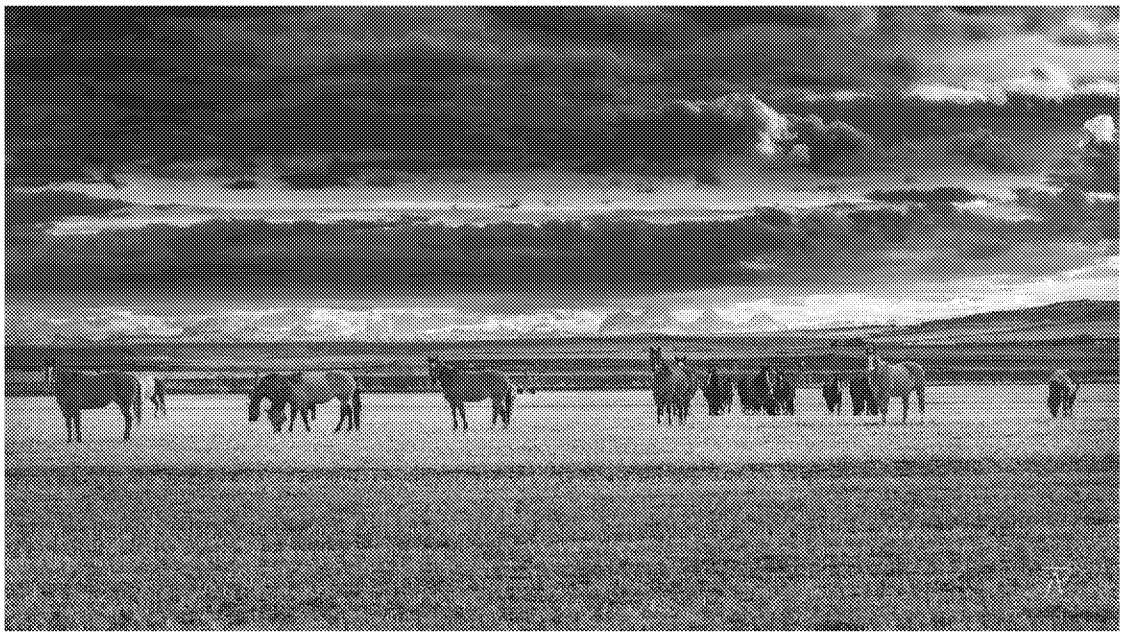
RH Program and Class I Areas

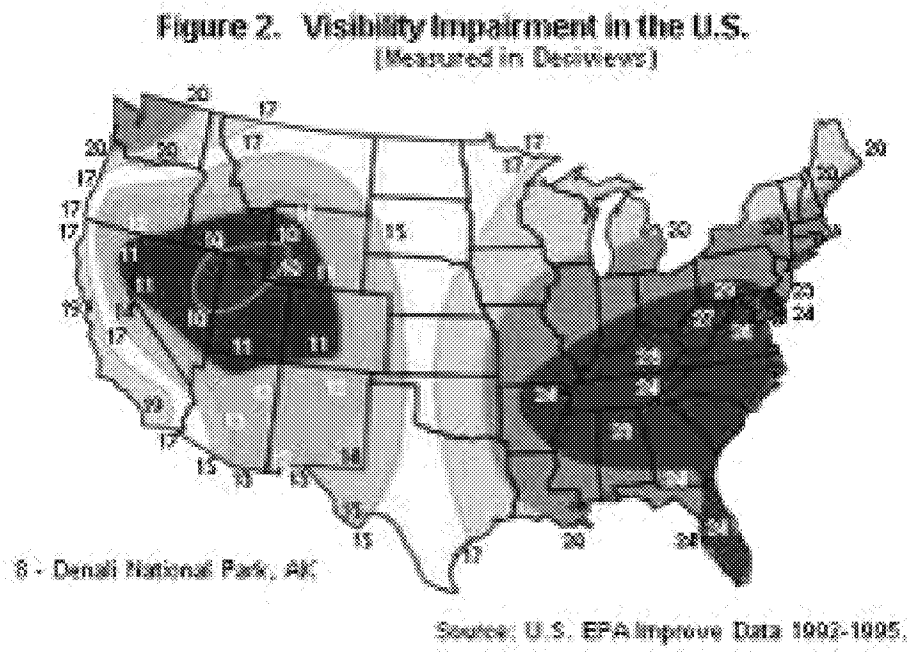
Mandatory Class I Areas



Goal of the Program



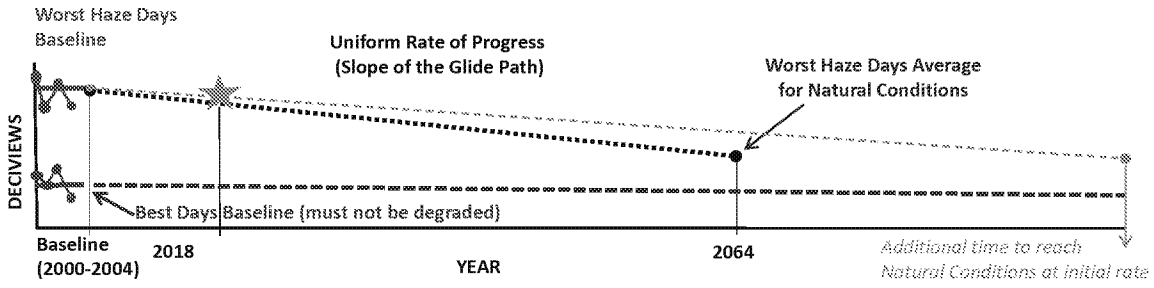
EPA 's Visibility Impairment Areas



Uniform Rate of Progress

Construct a straight-line **Glide Path** using deciview units over time

- –Start point: **Baseline** Worst Visibility Averages for 2000-2004
- –End Point: Worst Visibility under **Natural Conditions,** assigned to 2064
- –Slope: the **Uniform Rate of Progress**



Thus far, regional haze rulemaking (Round One) primarily has focused on Best Available Retrofit Technology (BART) sources, such as coal fired power plants and a few other large industries.

RH SIPs: Round One

- Five-factor "BART" determinations resulted in litigation challenging State and EPA decisions in several federal circuits.
  - Litigation involved challenges to state vs. federal decision making roles, statutory and regulatory interpretation (cost, existing controls, improved visibility), and included complicated cost and computer modeling issues.
  - Some of these cases continue, and are stayed (Wyo., Utah, Texas, etc.)

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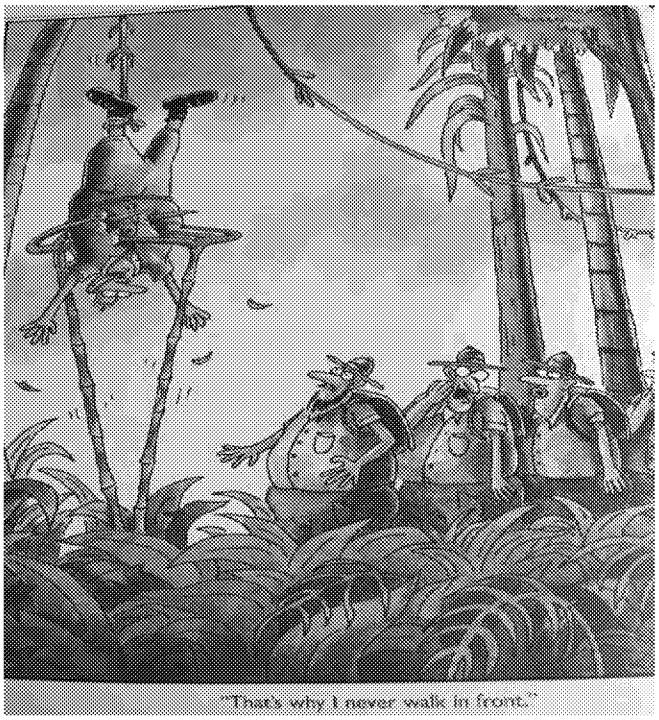
Sometimes it is good not to be first . . .



"That's why I never walk in front."

Reasonable Progress: Round Two

- BART applies only to the first set of RH SIPs.
- RH SIPs will be submitted every ten years, with an update every five years. Round Two (second planning period) begins in 2019, with 2021 to submit new RH SIPs.
- Reasonable Progress Goals, which could include controls and limits, are part of every RH SIP.
- BART satisfies Reasonable Progress analysis for first RH SIPs for BART sources. Not so clear with Round Two.
- Reasonable Progress analysis not limited to age or type of source like BART. Will conduct review of all types of sources.

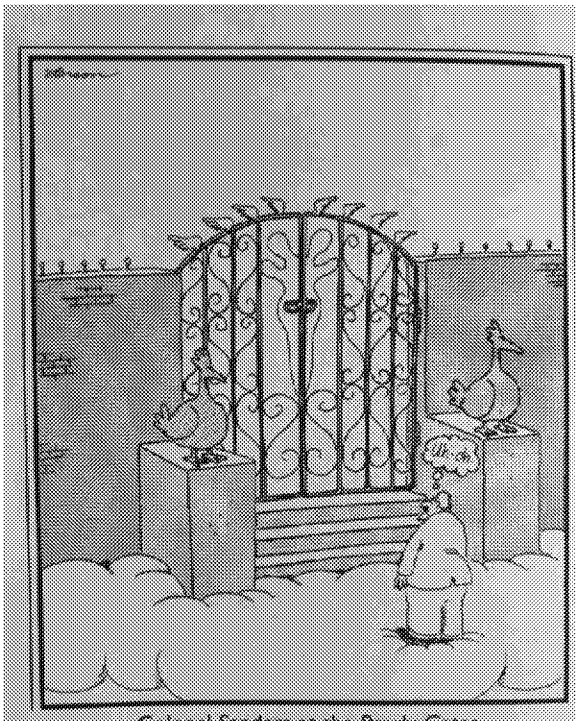
Reasonable Progress Four Factors: Heart and Soul of Round Two

- Reasonable Progress requires analysis of four factors.
  - (1) The costs of compliance;
  - (2) the time necessary for compliance;
  - (3) the energy and non-air quality environmental impacts of compliance; and
  - (4) the remaining useful life of any potentially affected sources.
- Same as 4 of the 5 BART factors. So, Round One BART determinations will be relevant to Round Two RPG determinations.
- Mining, oil, and gas sources could be included among the sources analyzed for RPG controls.
- Wyoming already has applied this analytical framework to oil and gas sources.

Analysis of oil and gas industry under "Reasonable Progress Goals" Program in Wyoming

- Oil and gas sources were analyzed in the Round One Wyoming RH SIP and EPA's related review of the RH SIP
- EPA disagreed with Wyoming's reasonable progress analysis and found "cost effective" NO_x controls could be employed for those sources.
- EPA did not require those RPG NO_x controls because the costs were "not so low that we are prepared to disapprove the State's conclusion in the reasonable progress context."
- EPA's decision to not require additional controls from the oil and gas sector is surprising given that its NO_x emissions between 2002 and 2018 are expected to increase 132%, while point sources would decrease 7%.

No One Likes a Surprise



Colonel Sanders at the Pearly Gates

So, Why You Should Care

- Many states are already preparing regional haze State Implementation Plans ("RH SIPs") for July 31, 2021
- States must demonstrate "reasonable progress" as part of a RH SIP – a policy concept subject to considerable discretion
- Round two will scrutinize many more and varied sources of NOx, SO2, PM, and potentially VOCs and ammonia
- Oil and gas and many other emission sources will be subject to increased scrutiny during Round Two

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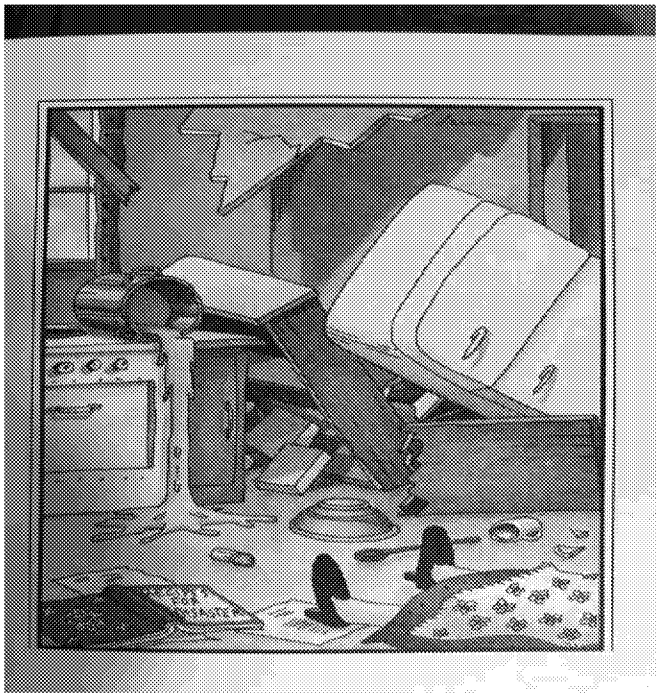
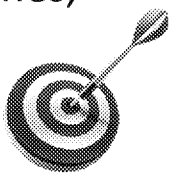
Failure to Understand the Regional Haze Program Could be a . . .



New Industry Targets for Regional Haze Round Two

- Oil and gas sector (NOx and VOCs) – already targeted by environmental groups in Round One (in a limited fashion – Wyo), although mostly focused on "BART"
- Shift from narrow "BART" focus, i.e., coal-fired power plants, etc., to wider "reasonable progress" range of sources
- Focus on PM2.5, NOx, SO2, and potentially VOCs and ammonia
- New targets will include large industrial sources with boilers such as mining production, oil refineries, gas processing plants, large internal combustion engines, and agricultural operations



Important Lessons for Round Two RH SIPs

Calculating costs and what is cost effective for Reasonable Progress analysis

- Extensively support cost calculations, what costs should be included, what costs are reasonable, and the relationship of costs to visibility improvements.
  - Understand EPA protocols and methods for considering costs.
- For round one, reasonable costs tended to rise over time
- For round two, reasonable cost standards are less defined than for BART, and sources will be smaller and more varied
- EPA upheld costs for round one that arguably resulted in source retirements or fuel switching. Courts generally upheld EPA's approach, although some cases are still pending.

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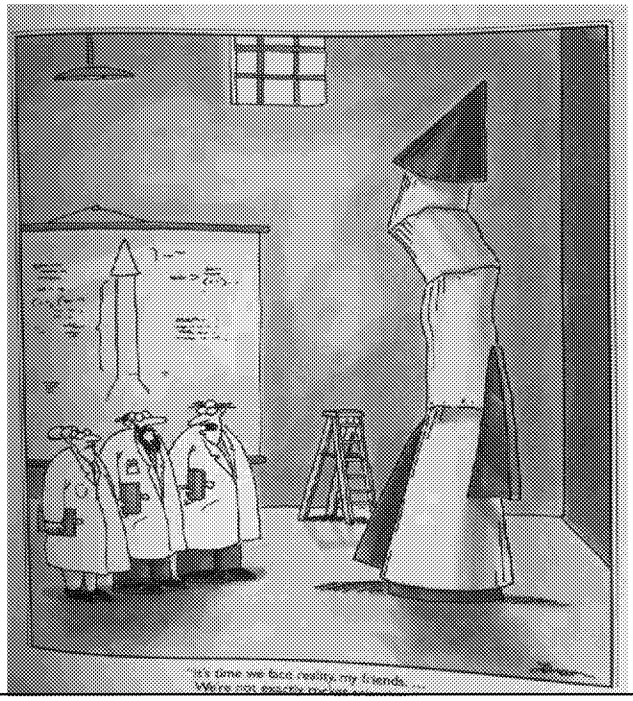
Important Lessons for Round Two RH SIPs

Modeling: Do your best to anticipate which modeling approach the state and/or EPA may use and ensure models are used and vetted appropriately.

- EPA has shifted from CALPUFF to CAMX and CMAQ
- EPA tends to attack departures from its modeling "guidance"
- Models are inexact predictions that operate within a margin of error, and are reliant on the chosen inputs to the model.
  - Understand inputs, or hire someone who does.
- EPA must be able to support the statutorily required "reasonable anticipation of visibility improvement." *Nat'l Parks Conservation Ass'n v. EPA*, 788 F.3d 1134, 1146 (9th Cir. 2015).

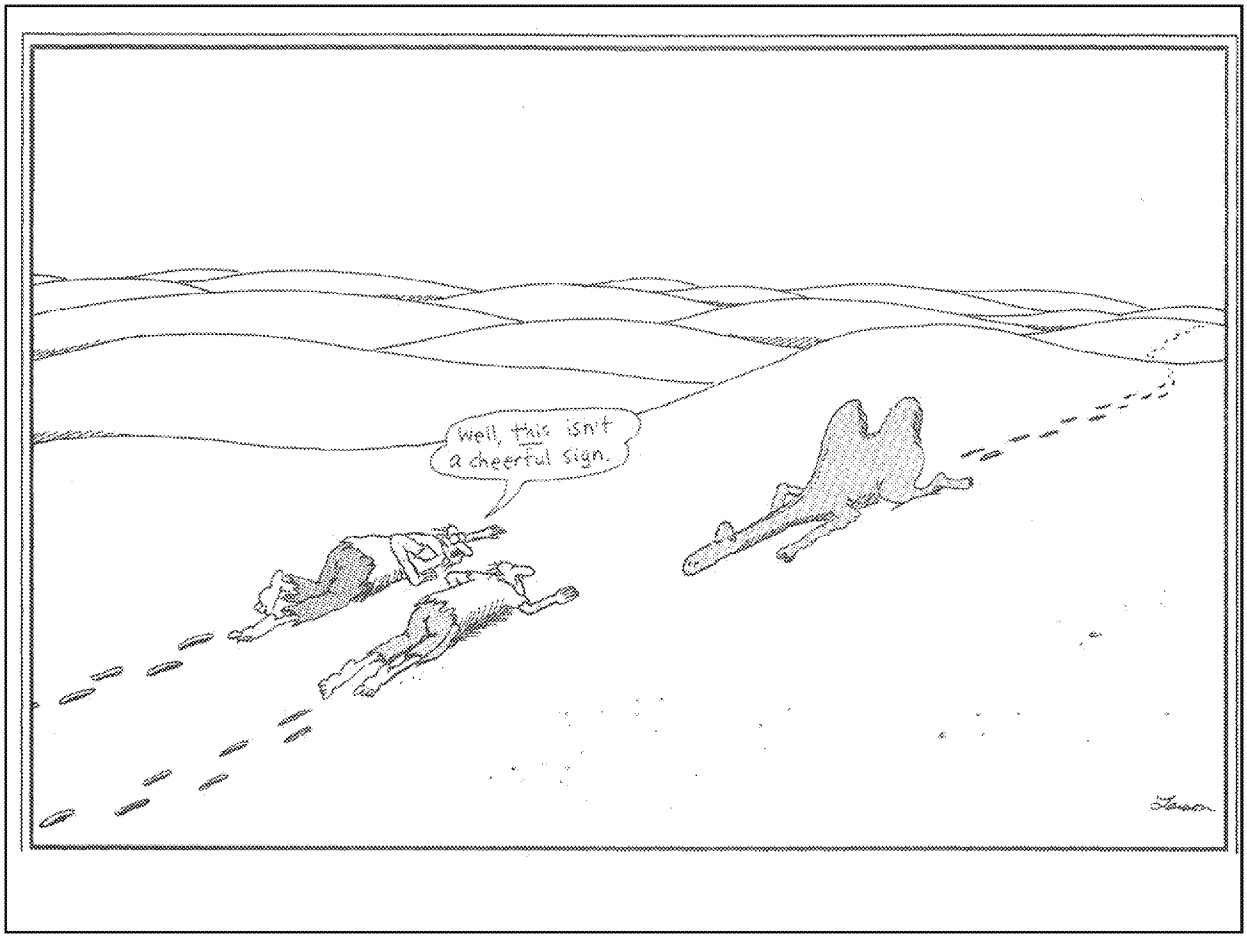
Modeling isn't rocket science . . .



Important Lessons for Round Two RH SIPs

Modeling Sub-lesson: Secondary issues such as background levels of ammonia can have a significant impact on model outcomes.

- Change of ammonia background in Wyoming model resulted in reduced visibility improvements (from 0.82 deciviews to 0.37 deciviews), resulting in completely different control requirements from earlier proposal.
- New models for round two may be impacted by inputs other than ammonia background.
- Sources and states should pay close attention to modeling inputs and their impacts on the ultimate outcome.
- Monitoring data is the reality check for modeling


Well, this isn't a cheerful sign.

Important Lessons for Round Two RH SIPs

The role of URP

- While no longer determinative of the Reasonable Progress Goals in the New , a state's progress on the URP will still be an important indication of the level of justification needed for the Long-Term Strategies and the corresponding level of scrutiny to anticipate.
- Environmental groups have used failure to achieve URP in their claims that more controls are necessary.
- Work with states to ensure the role of URP is understood and addressed in the SIP.

Important Lessons for Round Two RH SIPs

State vs. federal roles: EPA's determinations will carry great weight with most courts. However, if an EPA error or overreach can be clearly articulated, there is precedent for courts to side with a state.

- EPA's determinations will carry great weight with most courts.
- However, if an EPA error or overreach can be clearly articulated, there is precedent for courts to side with a state.
- EPA: "[T]he state's BART analysis and determination **must be reasonable in light of the overarching purpose of the regional haze program.**" 77 Fed. Reg. at 33,026, (emphasis added).
- Fifth Circuit: There is "a congressional preference that states, not EPA, drive the regulatory process." *Texas v. EPA*, 829 F.3d at 411.
- Cooperation between EPA, the States, and regulated entities is preferable, and often most successful.

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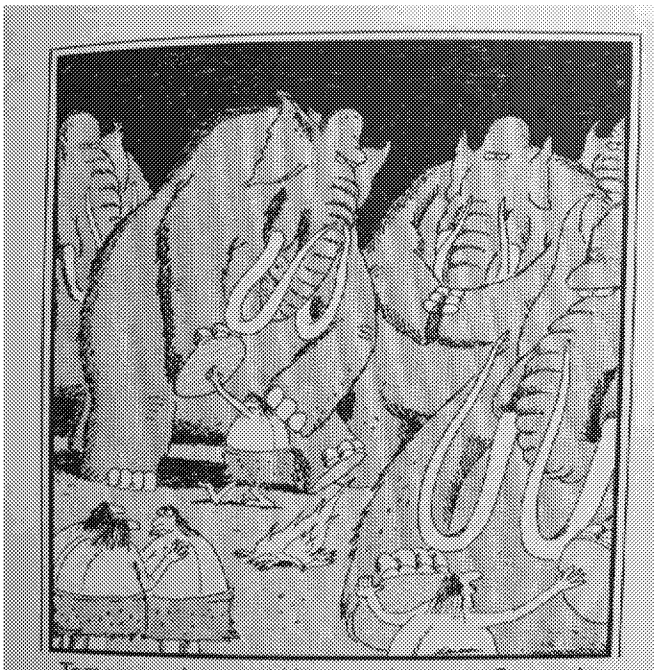
Working Together is Best



Tomorrow, they would be mortal enemies. But on the eve of the great hunt, feelings were put aside for the traditional Mammoth Dance.

Important Lessons for Round Two RH SIPs

Group vs. source-specific analysis: States have discretion over the scope of analysis required to prove reasonable progress.

- States granted broad discretion by statute and RH Rules
- Three Courts of Appeal have found states have discretion over whether source-specific analysis is required.
  - BUT – EPA has overriding authority to determine the "reasonableness" of a state's actions
  - Courts are likely to defer to EPA's interpretation of whether the RH SIP complies with the RH Rules
  - State has discretion in how to balance factors but EPA has authority to determine compliance with CAA – often hard to distinguish. *Oklahoma v. EPA*, 723 F.3d 1201 (10th Cir. 2013)

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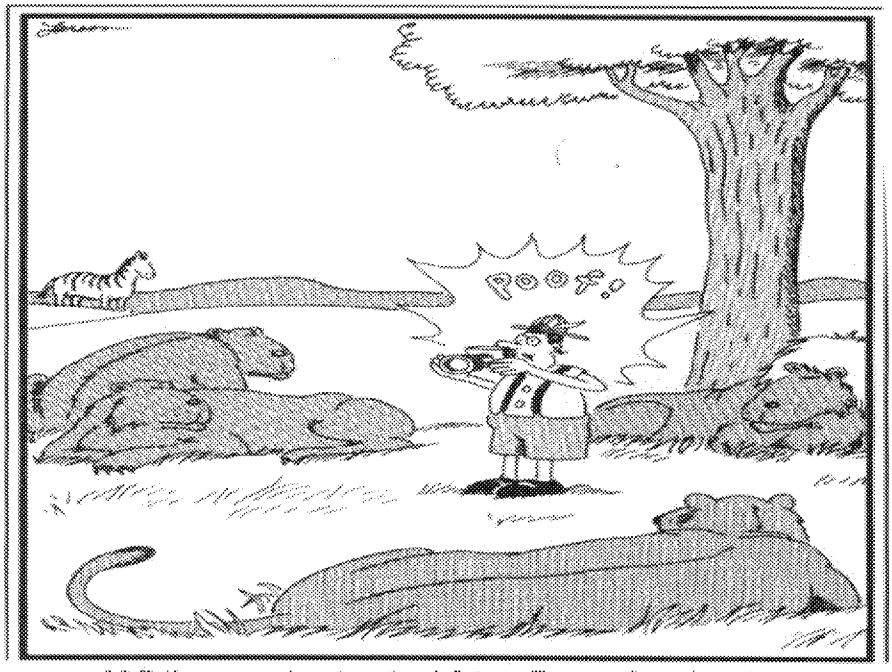
Important Lessons for Round Two RH SIPs

Departing from the norm: Do it only if you must, and if you do it, provide strong support for how and why you did it, including modeling if possible.

- A State is may choose how to demonstrate reasonable progress, but "it [is] not free to do so in a manner that [is] inconsistent with the CAA." *North Dakota v. EPA*, 730 F.3d 750, 766 (8th Cir. 2013).
- Success with alternatives in round one was often associated with the outcome rather than the method.

Be careful what you wish for?



While vacationing in Africa, Pinocchio has his longtime wish to be a real boy suddenly and unexpectedly granted.

EPA Is Rethinking New RH Rules

- EPA relying on inherent authority - not reconsideration – judicial review on hold
- EPA will conduct notice-and-comment rulemaking.
- New rulemaking will address “any other aspects of the rule [EPA] believes will benefit from further input.” EPA Letter to Admin. Petitioners
- EPA also plans to issue guidance which may address issues from the New RH Rules

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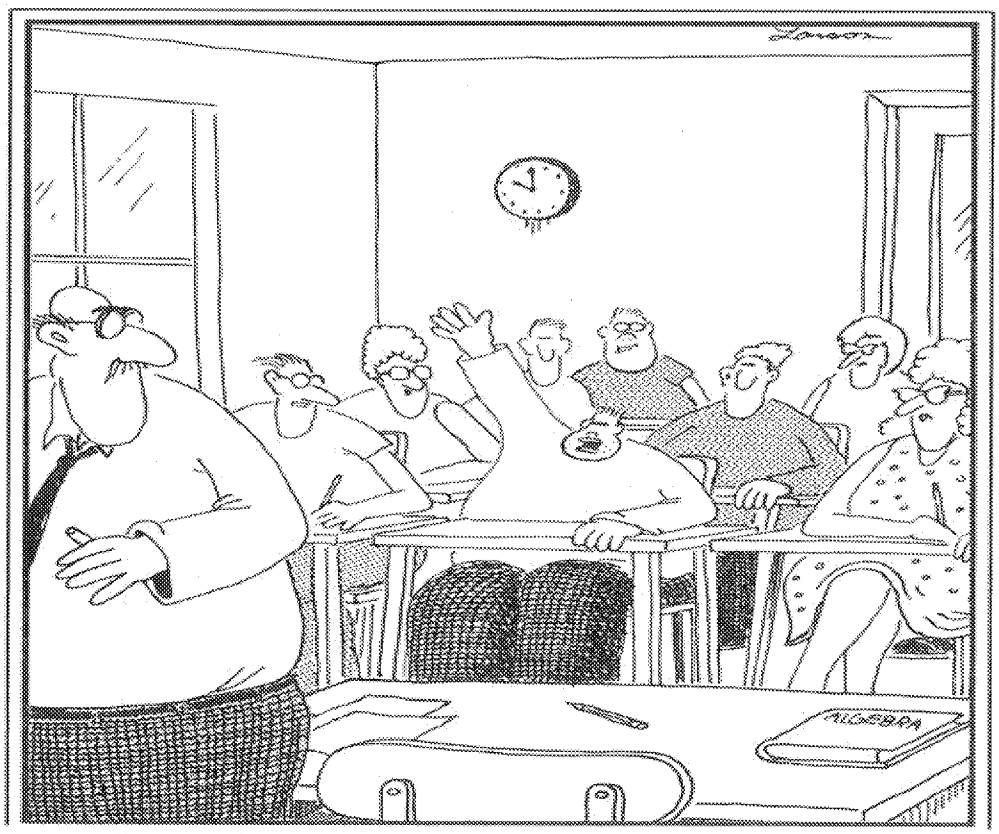

"Mr. Osborne, may I be excused? My brain is full."

Close involvement and a solid understanding of the methods, policies, and decision makers that will determine pollution control requirements will provide the best opportunity to ensure that the final RH SIPs for round two contain realistic and workable control requirements for your sector and your company's individual sources

Analyzing Climate Change Impacts in the NEPA Process: What Impact Will Executive Order 13783 Have on Federal Agencies' NEPA Reviews?

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Paper 10

ANALYZING CLIMATE CHANGE IMPACTS IN THE NEPA PROCESS: What impact will Executive Order 13783 have on federal agencies' NEPA reviews?

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I. Introduction

The National Environmental Policy Act (NEPA) requires that federal agencies consider the combined, incremental effects of human activity, or the "cumulative impacts," in their environmental reviews to ensure that "the range of actions that is considered in NEPA documents include[s] not only the project proposal but also all actions that could contribute to cumulative impacts."[1] Perhaps no cumulative impact has been as difficult to quantify and analyze from a NEPA perspective as the effect of a project's greenhouse gas emissions on global climate change. Whether and how to analyze the cumulative global climate change impacts of a particular project has been fraught with controversy and this policy friction has been played out at the highest levels of government. The previous presidential administration "advanced guidance and initiatives designed to eliminate or minimize [greenhouse gas] emissions and to address climate change."[2] A change in our presidential leadership has resulted in a fundamental shift in environmental policies, including how federal agencies are to consider a particular project's impacts on climate change. "One of the keys to the Trump administration's efforts to undo former President Barack Obama's climate change legacy has been to alter the way the government calculates the future cost of carbon emissions."[3]

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[1] Consideration Of Cumulative Impacts In EPA Review of NEPA Documents U.S. Environmental Protection Agency, Office of Federal Activities (2252A) EPA 315-R-99-002/May 1999.
[2] Deanna Bennet, "NEPA and Climate Change: Where We Were, Where We Are, and Where Are We Going?"
[3] 'Cost of Carbon' Calculus Key to Trump's Reg Rollback Push, Law360, https://www.law360.com/articles/978682/print?section=energy

The views expressed in this paper are solely those of the author (or authors).
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On March 28, 2017, President Trump issued Executive Order No. 13783 titled, "*Promoting Energy Independence and Economic Growth*."[4] The Executive Order (EO) seeks to "promote clean and safe development of our Nation's vast energy resources, while at the same time avoiding regulatory burdens that unnecessarily encumber energy production, constrain economic growth, and prevent job creation."[5] To achieve this goal, the EO requires executive departments and agencies to "immediately review [and appropriately suspend, revise, or rescind] existing regulations that potentially burden the development or use of domestically produced energy resources."[6]

The EO instructs the Council on Environmental Quality (CEQ) to rescind its final guidance document "Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews,"[7] (CEQ Final Guidance), disbands the Interagency Working Group on Social Cost of Greenhouse Gases (IWG) and withdraws documents issued by the IWG related to the Social Cost of Carbon (SCC),[8] requires agencies to use OMB Circular A-4 (dated September 17, 2003) (Circular), "when monetizing the value of changes in greenhouse gas emissions resulting from regulations, including with respect to the consideration of domestic versus international impacts and the consideration of appropriate discount rates,"[9] instructs the Secretary of Interior to amend or withdraw Secretary's Order 3338 regarding Federal Land Coal Leasing,[10] and instructs the Administrator of the Environmental Protection Agency to review regulations related to United

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[4] Executive Order No. 13,783, 82 FR 16093.
[5] *Id.* at § 1(b).
[6] *Id.* at § 1(c).
[7] *Id.* at § 3(c).
[8] *Id.* at § 5(b).
[9] *Id.* at § 5(c).
[10] Executive Order No. 13,783, 82 FR 16093, § 6.

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States Oil and Gas Development.[11] In this paper, we consider what effect the EO's rescission of the CEQ Final Guidance and the SCC documents will have on federal agencies' future NEPA analyses.

II. CEQ Final Guidance and the SCC

Toward the very end of President Obama's second term, the White House Council on Environmental Quality (CEQ) released the CEQ Final Guidance, which recommended to federal agencies how to evaluate greenhouse gas (GHG) emissions and climate change impacts when conducting NEPA reviews for proposed federal actions.[12] "The focus was on the long-term viability of the project, [and] tying design of alternatives to climate change effects for the useful life of that project."[13] The SCC, a technical support document prepared by the IWG, provided a way to monetize the cost of GHG emissions in the context of federal rulemakings.[14] The EPA described the SCC as "a commonly estimated measure of the economic benefits of [] GHG emission reductions and represents the present value of the marginal social damages of increased GHG emissions in a particular year."[15]

Although designed to be used as part of the regulatory impact analysis for federal rulemakings, the use of the SCC in the project-specific NEPA analyses had begun to gain favor with some federal agencies and courts prior to the issuance of the President Trump's March 28, 2017 EO. For example, a United States District Court for the District of Colorado held that because the SCC was an available tool to be used by the U.S. Forest Service to evaluate the

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[11] *Id.* at § 7.
[12] Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews, 81 FED. REG. 51866 (Aug. 5, 2016).
[13] Erin L. Deady, *Why the Law of Climate Change Matters: From Paris to A Local Government Near You*, Fla. B.J., November 2017, at 54, 55.
[14] Technical Support Document: Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866, Interagency Working Group on Social Cost of Carbon, United States Government (Feb. 2010).
[15] https://yosemite.epa.gov/ee/epa/eed.nsf/ec2c5e0aaed27ec385256b330056025c/a318cf33a806332885257fc0005fc6b6/$FILE/2010-07v2.pdf

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impacts caused by GHG emissions for a particular project, the failure to justify why the SCC was not used in the agency's environmental impact statement ("EIS") was arbitrary and capricious.[16] Similarly, the Bureau of Land Management issued a memo in 2015 acknowledging that "some field offices ha[d] included estimates of the SCC in project-level NEPA documents."[17]

Now, since the SCC protocol is "no longer representative of government policy,"[18] federal agencies are functionally precluded from using the SCC as part of their regulatory impact analysis for federal rulemakings. Instead, agencies are required to use the 2003 OMB Circular when monetizing the value of changes in GHG emissions.[19] Moreover, since the 2010 SCC Technical Support Document and its updates have been rescinded, and the IWG has been disbanded,[20] it is unclear whether any federal agency could offer an alternative basis for using the SCC in the context of a cumulative impacts assessment for a project-specific NEPA analysis.

III. 2003 OMB Circular A-4

The Circular, issued in 2003 by the Office of Management and Budget (OMB), provides "a general framework for conducting a comprehensive cost-benefit analysis and identifies factors an agency should consider in its analysis."[21] While a complete discussion of the impact of Circular A-4 is beyond the scope of this paper, it is worth briefly noting how the cost-benefit analysis for global climate change impacts are likely to differ under this Circular than under the SCC tool.

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[16] *High Country Conservation Advocates v. United States Forest Serv.*, 52 F. Supp. 3d 1174, 1190 (D. Colo. 2014).
[17] https://www.eenews.net/assets/2015/04/15/document_gw_01.pdf
[18] Executive Order No. 13,783, 82 FR 16093, § 5.
[19] *Id.* at § 5(c).
[20] *Id.* at § 5(b)
[21] M-03-21, OMB Circular No. A-4, "Regulatory Analysis"
https://obamawhitehouse.archives.gov/omb/memoranda_m03-21/ ;
https://www.law360.com/articles/893693/2-for-1-executive-order-leaves-omb-to-work-out-details

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The IWG recommended that agencies calculate the central SCC value using a 3 percent discount rate and 2.5 percent and 5 percent as the outer range.[22] The SCC estimates were based on both domestic and global damages.[23] Circular A-4 instructs that when analyzing proposed regulations, federal agencies should "provide estimates of net benefits using both 3 percent and 7 percent discount rates."[24] A lower discount rate may be appropriate when a regulation "primarily and directly affects private consumption" by influencing the cost of goods and services.[25] Circular A-4 suggests that rates as low as 1 to 3 percent may be most appropriate when discounting across generations in an attempt to address time-inconsistency problems and increased uncertainty about the appropriate value of the discount rate, but lower discount rates should be used in addition to calculating net benefits using discount rates of 3 and 7 percent.[26] Under Circular A-4, estimates are based solely on domestic damages rather than domestic and global damages.[27]

IV. How will agencies and courts move forward under the EO?

In the nine months since President Trump issued EO 13783, federal agencies and the courts have offered little guidance on how agencies are supposed to analyze the impacts of GHG emissions in the absence of the CEQ final guidance and the SCC protocol. The new presidential administration has not yet issued any over-arching procedure for analyzing global climate change

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[22] Interagency Working Group on Social Cost of Carbon, *Response to Comments: Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866* (U.S. Government, 2015), pp. 21–22, available at https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc-response-to-comments-final-july-2015.pdf

[23] *Id.*

[24] Office of Management and Budget, *Circular A-4*, September 17, 2003, available at https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/regulatory_matters_pdf/a-4.pdf.

[25] *Id.*

[26] Interagency Working Group on Social Cost of Carbon, *Response to Comments: Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866* (U.S. Government, 2015), pp. 22, available at https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc-response-to-comments-final-july-2015.pdf

[27] *Id.*

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impacts from GHG emissions and individual agencies are just beginning to offer a few clues as to how they intend to consider global climate change impacts both in the context of individual projects and agency rulemakings.

A. Administrative response to the EO

In a draft supplement environmental impact statement (SEIS), dated September 27, 2017, related to the Southeast Market Pipelines Project, the Federal Energy Regulatory Commission (FERC), explained that the SCC is not an appropriate tool for use in "any project-level NEPA review." [28] FERC stated that there can be "significant variation" in the SCC tool's output, that it "does not measure the actual incremental impacts of a project on the environment," and "there are no established criteria identifying the monetized values that are to be considered significant for NEPA reviews."[29]

While not directly addressing the SCC, the Departments of Energy and Interior have responded to the President Trump's EO by outlining specific recommendations to expedite and streamline environmental reviews for energy projects within their regulatory purview. Both the substance and tone of these initial reports indicate each agency's intention to process NEPA reviews for energy projects in a manner that gives greater weight to the need for expeditious approval of projects that increase domestic energy production and transmission. This focus on streamlining project approvals (and their related NEPA analyses) appears to discourage any procedures or analytical methodologies that would undermine the need for these projects or otherwise lead to project delays.

The Department of Energy (DOE) responded to EO 13783 with a recommendation to "streamline natural gas exports," "review national laboratory policies," "review NEPA

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[28] Southeast Market Pipelines Project, Draft Supplemental Environmental Impact Statement, 20170927-3025 FERC PDF (Unofficial) 09/27/2017.
[29] *Id.*

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regulations," and "review the DOE appliance standard program."[30] The DOE's goal when reviewing the NEPA regulations is to "improve effectiveness and efficiency of NEPA document approval processes."[31] In order to achieve this goal, the DOE recommended that it: (1) "Reform the NEPA process for permitting and exporting applications," (2) "Review existing NEPA policies to assess whether DOE should grant more categorical exclusions….", and (3) "Remove language in DOE Regulations (10 CFR 1021) that is not consistent with overarching CEQ regulations (40 CFR 1500-1508)."

The Department of Interior (DOI) for its part issued a report in response to the EO 13783 and found "several costly and burdensome regulations from the past threaten that balance by hampering the production or transmission of our domestic energy."[32] The report identified one major issue as "[u]nnecessarily lengthy NEPA reviews delay projects,"[33] finding that "[t]he NEPA process has added extra time and analysis to project completion, which adds to uncertainty for industry and higher costs for taxpayers. This is particularly true for Departmental actions that impact energy and infrastructure projects, such as resource management planning, permitting, and issuance of rights-of-way for pipeline projects and electricity transmission."[34] The DOI suggested revision to the NEPA Compliance for Oil and Gas Lease Reinstatement Petitions, and limiting EIS statements to 150 pages or 300 pages for unusually complex projects.[35]

Although not directly impacting NEPA reviews, but in response to the EO, the U.S. Environmental Protection Agency (EPA) reviewed the Clean Power Plan (CPP) and

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[30] https://energy.gov/sites/prod/files/2017/10/f38/EXEC-2017-003431%20Final%20EO%2013783%20dated%2010-24-17.pdf
[31] *Id.*
[32] https://www.doi.gov/pressreleases/department-interior-releases-energy-burdens-report
[33] *Id.*
[34] *Id.*
[35] *Id.*

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"determine[d] that the Obama-era regulation exceeds the Agency's statutory authority."[36] The EPA proposed to repeal the CPP in an effort to "facilitate the development of U.S. energy resources and reduce unnecessary regulatory burdens associated with the development of those resources."[37] The proposed repeal finds the CPP to be "inconsistent with the Clean Air Act," and the repeal would "return EPA's actions to its understanding that the 'best system of emission reduction' for a source should be based only on measures that can be applied to or at the source."[38] Further, "EPA estimates that repealing the CPP could lead up to $33 billion dollars in avoided compliances costs in 2030."[39] EPA's significant revision in the cost of the CPP (and related savings related to its repeal) is a result of the agency's revised cost-benefit methodology. EPA's new estimate "shifts the focus to the domestic (rather than global) social cost of carbon, and employs both 3 percent and 7 percent discount rates" as directed in OMB Circular A-4.[40]

B. Judicial review of agency decisions

In August 2017, the United States District Court for the District of Montana (J. Molloy), ruled that the U.S. Office of Surface Mining Reclamation and Enforcement's (OSM's) environmental review of a proposed federal mining plan modification for expansion of underground coal mining operations was not sufficient.[41] Although OSM calculated the greenhouse gas emissions associated with coal transportation, the court found that it had not considered other reasonably foreseeable environmental impacts. Judge Molloy concluded that although NEPA does not compel an agency to prepare a cost-benefit analysis generally—or

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[36] https://www.epa.gov/newsreleases/epa-takes-another-step-advance-president-trumps-america-first-strategy-proposes-repeal

[37] 82 Fed. Reg. 48035 (Oct. 16, 2017). FR Vol. 82, No. 198, 10/16/2017.

[38] https://www.epa.gov/sites/production/files/2017-10/documents/fs-proposed-repeal-cpp-final_oct10.pdf.

[39] *Id.*

[40] 82 Fed. Reg. at 48043.

[41] *Montana Envtl. Info. Ctr. v. U.S. Office of Surface Mining*, No. CV 15-106-M-DWM, 2017 WL 3480262, (D. Mont. Aug. 14, 2017), *amended in part, adhered to in part sub nom. Montana Envtl. Info. Ctr. v. United States Office of Surface Mining*, No. CV 15-106-M-DWM, 2017 WL 5047901 (D. Mont. Nov. 3, 2017).

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require the use of the SCC in particular—an agency must nevertheless quantify a project's costs if the agency quantified the project's benefits.[42] Judge Molloy made no reference to the EO in his decision.[43]

The United States District Court for the Eastern District of California (J. O'Neill), has intimated that the new EO may impact an agency's NEPA analysis. In *Aqualliance v. U.S. Bureau of Reclamation*, various water resource management and conservation organizations challenged the U.S. Bureau of Reclamation, San Luis & Delta-Mendota Water Authority, U.S. Department of Interior, and U.S. Fish & Wildlife Service's 10-year water transfer program to move water from sellers located upstream of the Sacramento/San Joaquin Delta to willing buyers south of the Delta.[44] Plaintiffs in that case argued "that the FEIS/R as a whole fails to assess meaningfully impacts associated with ongoing climate change," and therefore, the FEIS/R violates both CEQA and NEPA.[45] The court requested supplemental briefing on the following question: to "what extent does NEPA still impose upon Federal Defendants a responsibility to incorporate reasonably foreseeable climate change impacts into the baseline?"[46]

The Federal defendants argued that the withdrawal of the CEQ guidance "does not affect the obligations NEPA imposes on federal agencies," that NEPA imposes "the same responsibilities now as it did," and "even if the withdrawal [] changed the responsibilities NEPA imposes on federal agencies, it would not have an impact on this case because the [] guidance was in effect at time" the case was filed.[47] The plaintiffs agreed with the Federal defendants that

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[42] *Id.* at *13.
[43] *See generally Montana Envtl. Info. Ctr. v. U.S. Office of Surface Mining*, No. CV 15-106-M-DWM, 2017 WL 3480262.
[44] *Aqualliance v. U.S. Bureau of Reclamation*, No. 1:15-CV-754-LJO-BAM, 2017 WL 3009196 (E.D. Cal. July 14, 2017).
[45] *Id.*
[46] *Id.*
[47] *Aqualliance*, No. 1:15-CV-754-LJO-BAM, Federal Defendants' Supplemental Brief In Response to Court's Request, Document 67, pg. 7.

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"withdrawal of CEQ guidance did not eliminate climate change as a proper consideration under NEPA."[48] The Water Authority defendants argued that "[b]ecause the Draft Guidance [] was withdrawn on April 5, 2017, it is neither binding nor persuasive and is not a factor in the Court's analysis.[] and [t]he NEPA statute and regulations, which do not directly address climate change, therefore control."[49] The court has yet to rule on the question of what effect, if any, the withdrawal of CEQ's Guidance has on the Bureau of Reclamation's obligation to analyze global climate change impacts in its NEPA analysis.[50]

V. Conclusion

While there is no doubt that the issuance of EO 13783 marked a clear shift in environmental policy at the highest levels of the federal government, it is too early to tell how individual agencies will analyze the cumulative impacts of GHG emissions on global climate change in the absence of the CEQ Guidance or the SCC protocol. Federal agencies have started the process of reviewing their own regulations and procedures as required by the EO, but it remains to be seen how those actions will impact agencies' individual project-specific NEPA reviews or regulatory impact assessments. At least one federal agency has formally disclaimed the use of the SCC in project-specific NEPA analysis and we expect other agencies to follow course. If EPA's proposal to rescind the Clean Power Plan is any indication, we expect agencies' regulatory impact analysis to show significantly greater economic benefits from rules that encourage domestic energy production, transportation, and consumption, and to show markedly greater costs for regulatory proposals that infringe upon such uses.

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[48] *Aqualliance*, No. 1:15-CV-754-LJO-BAM, Plaintiffs' Reply Brief, Document 69, fn. 7.
[49] *Aqualliance*, No. 1:15-CV-754-LJO-BAM, Water Authority Defendants' Supplemental Briefing, Document 68, fn. 26.
[50] *See Aqualliance*, No. 1:15-CV-754-LJO-BAM, docket generally.

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It is also too early to discern what impact, if any, the EO will have on how courts resolve specific legal challenges to agencies' NEPA analyses. In the absence of new administrative guidance from the CEQ—or some other inter-agency guidance—courts will left to determine the sufficiency of each agency's NEPA analysis of global climate change impacts on a case-by-case basis.

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Considering Climate Change Impacts in the NEPA Process: Response to Executive Order 13783

Rocky Mountain Mineral Law Foundation
Special Institute

February 7, 2018

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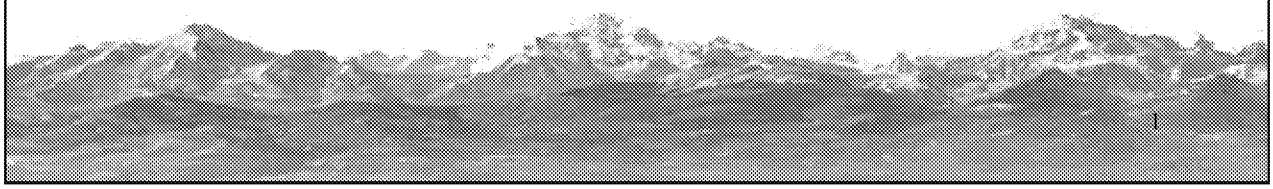

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Overview

- Summary of EO 13783
- Executive Branch Response
- Congressional Activity
- Judicial Guidance
- What to Expect? Reading the Tea Leaves

Turning the Page on Climate Change Analysis in Rulemakings & Project NEPA Reviews

- **What does EO 13783 do?**
  - Rescinds CEQ's NEPA Guidance
  - Rescinds SCC technical documents & disbands Interagency Working Group
  - Reinstates OMB Circular A-4 for regulatory impact analysis
  - Directs agencies to expedite reviews

Rescission of CEQ Guidance & SCC

- CEQ has not issued replacement guidance: each agency charting its own path in NEPA reviews
- Without SCC, OMB Circular A-4 is standard metric for regulatory impact analysis
- Use of SCC in project-specific NEPA reviews is questionable

How are Agencies Responding?

- Southeast Market Pipeline SEIS: FERC concludes that SCC not appropriate for "any project-level NEPA review"
- DOI & DOE response to EO: emphasis on streamlining NEPA & project reviews

EPA's Proposed Rescission of Clean Power Plan

- New focus on reducing regulatory burdens and costs on energy industry
- Proposed rescission highlights desire to "facilitate development of U.S. energy resources" and "reduce unnecessary regulatory burdens associated with development of those resources."
- Using new discount rate, EPA estimates repealing CPP could reduce compliance costs by $33 billion

Congressional Activity

- H.R. 3117- "Transparency and Honesty in Energy Regulations Act"
  - Would prohibit federal agencies from considering the impacts of carbon, methane and NOx in regulatory cost-benefit analyses.
  - Reported out of the Natural Resources committee on a party line vote (18-15) on November 30, 2017.
  - Committee also approved amendment that would prohibit federal agencies from using tools like the "Social Cost of Carbon" to determine indirect or cumulative effects during NEPA analysis.

Coal-specific Legislation

- H.R. 1778 – Relating to Coal Moratoriums
  - Would require the Department of the Interior to submit any proposed coal leasing moratorium to Congress for approval by a joint resolution.
  - Reported out of the Natural Resources committee (17-12) on November 30, 2017.

Potential Legislation to Expedite NEPA Process?

- "Modernizing NEPA for the 21st Century"
  - Natural Resources committee held oversight meeting on November 28, 2017.
  - Focused on time-consuming and costly nature of NEPA.
  - Discussed whether legislative improvements needed.

Judicial Guidance

- ***Sierra Club v. FERC*, No. 16-1329 (D.C. Cir. 2017)**
  - Petitioners challenged FERC's NEPA analysis as deficient for failing to analyze GHG emissions from burning the gas that pipelines would carry
  - Court held that FERC required to analyze GHG emissions from natural gas combustion as "reasonably foreseeable" impact
  - FERC prepared brief SEIS analyzing GHG impacts from gas combustion, but determined SCC was improper for project-specific analysis

- ***Montana Envtl. Information Cntr. v. OSM,*** No. 15-cv-106 (D. Mont.)
  - Court acknowledged that NEPA does not require agencies to perform cost-benefit analysis
  - However, OSM was required to analyze costs of GHG emissions from coal combustion **if** agency was going to quantify economic benefits
  - While OSM not required to use SCC, court noted that SCC was available tool for quantifying social costs from coal combustion

- ***Aqualliance v. Bureau of Recl.***, No. 15-cv-754 (E.D. Cal.)
  - Court's question: after EO 13783, must agencies still incorporate reasonably foreseeable climate change impacts into baseline after EO has been withdrawn?
  - Federal agency defendants = CEQ draft guidance was appropriate tool since it was in effect when project was approved & withdrawal of guidance doesn't change NEPA obligations
  - Private Water Authority defendants = once withdrawn, guidance should play no role in court's analysis. NEPA statute & regs. control

- ***WildEarth Guardians, et al. v. BLM, et al.***, 870 F.3d 1222 (10th Cir. 2017).
  - Before issuing several coal leases in Wyoming, BLM concluded that denying the leases would have no impact on the price of coal, because coal consumers would easily find replacement coal.
  - Environmental groups alleged BLM did not adequately support this argument in the record, arguing that a denial of the leases would inevitably increase the price of coal.
  - They further argued that an increase in the price of coal would result in reduced carbon emissions, due to decreased demand.
  - BLM, Wyoming, Peabody, Wyoming Mining Assn., and National Mining Assn. prevailed at the district court. Environmental groups appealed
  - Tenth Circuit overruled the district court, finding that BLM did not adequately support its "irrational" position, which was "contrary to basic supply and demand principles."
  - BLM is working on a new NEPA document on remand.

- ***Western Organization of Resource Councils v. Jewell,*** No. 15-5294 (D.C. Cir.)
  - Environmental groups alleged that BLM was required to prepare an updated Programmatic EIS related to coal leasing on federal land.
  - National Program v. Lease by Application
  - BLM, Wyoming, North Dakota, and Wyoming Mining Association prevailed at the district court. Environmental groups appealed. Briefs filed but no oral argument yet.

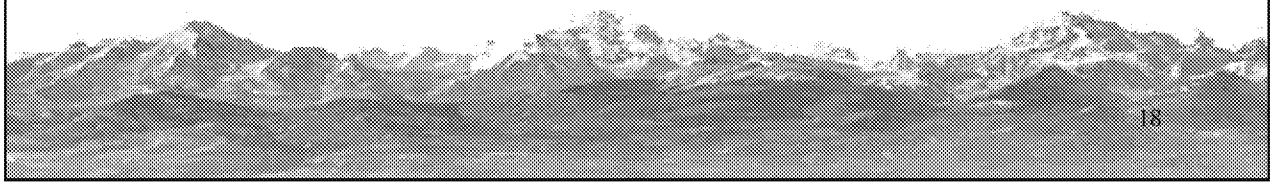
- ***Citizens for Clean Energy, et al. v. Interior, et al.***, No. 17-cv-30 (D. Mont.)
  - Environmental groups allege that Interior violated NEPA when it lifted the Obama Administration's moratorium on coal leasing
  - Notably, the Obama Administration did not conduct NEPA before imposing the coal lease moratorium
  - Case should be briefed Spring/Summer of 2018

Reading the Tea Leaves…

- **What to Expect From Federal Agencies**
  - New focus on streamlining energy projects
  - Highlight economic benefits of projects and economic burdens of excessive regulation
  - Case-by-case analysis of global climate change impacts in absence of new CEQ guidance

- **How will the Courts React?**
  - Plaintiffs will continue to push SCC as preferred tool for analyzing costs of GHG emissions
  - Even without SCC, courts likely to expect some analysis of costs of global climate change, especially when agency discusses benefits of project
  - Should defer to agencies' analyses if well-reasoned

- Possible Action from Congress?



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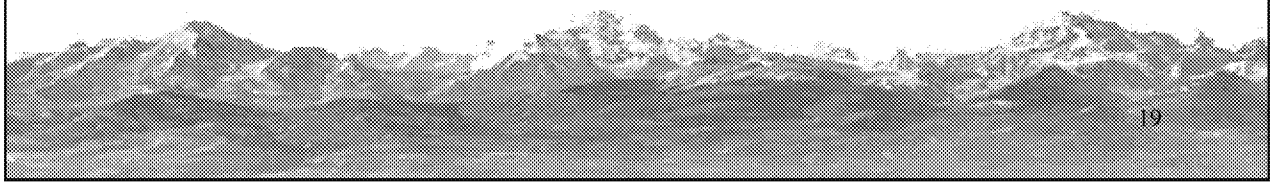

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Litigation Update: Highlights of 2017 Litigation Related to Air Quality Regulations and Enforcement Impacting the Oil, Gas, and Mining Sectors

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Paper 11

Litigation Update: Highlights of 2017 Litigation Related to Air Quality Regulations and Enforcement Impacting the Oil, Gas, and Mining Sectors

I. Regulatory Challenges

A. Ozone

Murray Energy Corporation v. Environmental Protection Agency

- **Case Citation**: Case No. 15-1385, Consolidated with 15-1392, 15-1490, 15-1491, and 15-1494 (D.C. Cir. 2015)

- **Factual and Procedural Background**: Murray Energy and others petitioned the D.C. Circuit for review of EPA's 2015 ozone standard that lowered the ozone NAAQS from 75 ppb to 70 ppb.[1] Briefing was completed in late 2016 and oral argument set. In April 2017, EPA petitioned to postpone oral argument based on the change of administration.[2] Although plaintiffs objected to this postponement, the court agreed to it and on April 11 the court removed the challenges from the oral argument docket and ordered the case in abeyance, requiring EPA to submit status reports on the agency's review of the regulations in light of the President's March 2017 Executive Order.[3]

- **Current Status**: While the legal challenge to the 2015 ozone standard remains in abeyance, implementation of the standard proceeds. Environmental groups have issued a letter of Notice of Intent to Sue regarding EPA's implementation of the 2015 ozone standard, alleging EPA has failed to promulgate NAAQS designations for the 2015 ozone standard.[4] The earliest a suit could be brought was December 2017.

B. NSPS Subpart OOOOa

Clean Air Council v. Pruitt

- **Case Citation:** 862 F.3d 1 (D.C. Cir. 2017)

- **Factual and Procedural Background**: NSPS Subpart OOOOa was promulgated on June 3, 2016,[5] effective August 2, 2016, to regulate methane and VOCs from sources in the oil

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[1] 79 Fed. Reg. 75,234 (Dec. 17, 2014).
[2] Respondent EPA's Motion to Continue Oral Argument, Case No. 15-1385 (D.C. Cir. April 7, 2017)
[3] Exec. Order No. 13783, 82 Fed. Reg. 16,093 (March 31, 2017).
[4] Letter from Laura Dumais, Earthjustice, Peter Zalzal, Environmental Defense Fund, and Scott Strand, Environmental Law and Policy Center to Scott Pruitt regarding Notice of intent to sue under the Clean Air Act for failure to designate areas under the 2015 Ozone National Ambient Air Quality Standard as required by 42 U.S.C. § 7407(d)(I)(B)(i) (October 3, 2017).
[5] 81 Fed. Reg. 35,824 (June 3, 2016).

The views expressed in this paper are solely those of the author (or authors).
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and gas sector for which construction, modification or reconstruction commenced after September 18, 2015. Highlights of the new regulation included "green completions" at well heads and fugitive emission controls for methane. The regulations required regulated entities to perform an "initial monitoring survey" by June 3, 2017 in order to identify leaks. [6]

In August 2016, the American Petroleum Institute (API) and other organizations requested EPA reconsider portions of OOOOa, including leak detection and repair (LDAR) requirements.[7] And, the March 28, 2017 Presidential Executive Order on Promoting Energy Independence and Economic Growth ordered the EPA Administrator to review the NSPS Subpart OOOOa regulations for consistency with the Executive Order's policy to review existing regulations impacting natural gas development and, if appropriate, "suspend, revise, or rescind the guidance or publish for notice and comment proposed rules suspending, revising or rescinding those rules."[8] As a result, in an April 18, 2017 letter EPA responded that, pursuant to CAA § 307(d)(7)(B), it would reconsider parts of OOOOa and would issue a 90-day stay of compliance with the fugitives monitoring requirements of NSPS OOOOa.[9] The "Notice of reconsideration and partial stay" was published on June 5, 2017, retroactive to June 2, 2017.[10] On June 16, EPA published a proposed rule extending the stay for two more years, "to look broadly at the entire 2016 rule."[11] Environmental groups filed an "emergency motion to stay, or in the alternative, summary vacatur" with the D.C. Circuit regarding the 90-day stay.[12] The two-year stay has not yet been finally promulgated.

- **Legal Issue**: Whether the Court of Appeals has authority to review an order staying a promulgated regulation.

- **Legal Arguments:** The environmental plaintiffs contended that the stay violates CAA § 307(d)(7)(B) because the issues identified for reconsideration could have been, and were, considered by EPA during the rulemaking.[13] EPA and the industry groups claimed that the court lacked jurisdiction to review the agency's decision to reconsider the rule because the reconsideration and stay were not final agency action.[14]

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[6] 40 C.F.R. § 60.5397a(f).
[7] Letter from H. Feldman, Senior Director, Regulatory and Scientific Affairs, API to G. McCarthy, Administrator, EPA (August 2, 2016).
[8] Exec. Order No. 13783, 82 Fed. Reg. 16,093 (March 31, 2017).
[9] Letter from E. Scott Pruitt to Howard J. Feldman, Shannon S. Broome, James D. Elliott, & Matt Hite, Convening a Proceeding for Reconsideration (Apr. 18, 2017).
[10] 82 Fed. Reg. 25,730 (June 5, 2017)
[11] 82 Fed. Reg. 27,645 (June 16, 2017).
[12] Emergency Motion for a Stay, or, in the Alternative, Summary Vacatur, Clean Air Council v. Pruitt, 862 F.3d 1 (D.C. Cir. 2017)(No. 17-1145).
[13] 862 F.3d at 6-7.
[14] *Id.*

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- **Holding**: The court agreed that it could not review the agency's decision to reconsider the rule, but held that it did have jurisdiction to review the grant of the stay because this was final agency action: by imposing the stay, EPA concluded that § 307(d)(7)(B) requires reconsideration of the rule; and, imposition of the stay suspends the rule's compliance deadlines and essentially changed the rule's effective date.[15] (The dissent disagreed, explaining that a stay is not final agency action subject to review because it does not end a matter, but merely pauses it.[16]) The majority found that the stay was arbitrary and capricious because it was not impracticable under § 307 for industry groups to have commented on the rule to raise the same issues being reconsidered.[17] Because CAA § 307(d)(7)(B) did not require reconsideration, it therefore did not authorize a stay.[18]

- **Status**: The previously-stayed provisions of NSPS OOOOa are (back) in effect. However, EPA may yet finalize its proposed 2-year stay. A public comment period for EPA's November notice of data availability closed in December 2017.

  Also, on June 29, 2017, 15 states notified EPA of their intent to sue regarding the agency's perceived delay in regulating methane emissions from existing oil and gas operations, because Section 111(d) requires the agency to establish regulations for existing sources as well as new sources.[19] However, EPA had withdrawn the Final Methane Information Collection Request that would have gathered information on which to base the methane rules. The notice period for this suit is 180 days. [20]

C. BLM Venting and Flaring Rule

i. *State of Wyoming v. U.S. Department of the Interior; Western Energy Alliance v. Jewell*

- **Case Numbers:** 16-285; 16-280, U.S. District Court for the District of Wyoming

- **Factual and Procedural Background**: The Bureau of Land Management (BLM) issued regulations for "Waste Prevention, Production Subject to Royalties, and Resource Conservation," also known as the "Venting and Flaring Rule" on November 18, 2016.[21] The Venting and Flaring Rule, among other things, seeks to "reduce waste of natural gas

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[15] *Id.*
[16] *Id.* at 18.
[17] *Id.* at 14.
[18] *Id.* The court stressed, however, that EPA did not lack authority to reconsider the final rule. *Id.*
[19] Letter from Fifteen Attorneys General to Scott Pruitt regarding Clean Air Act Notice of Intent to Sue for Failure to Establish Guidelines for Standards of Performance for Methane Emissions from Existing Oil and Gas Operations under Clean Air Act Section 111(d) (June 29, 2017).
[20] 42 U.S.C. § 7604(a)(3).
[21] 81 Fed. Reg. 83,008.

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from venting, flaring, and leaks during oil and natural gas production activities on onshore Federal and Indian . . . leases."[22] The rule became effective on January 17, 2017.[23]

Three western states (Wyoming, Montana, and North Dakota) and industry groups (Western Energy Alliance and the Independent Petroleum Association of America) sought a preliminary injunction of the rule in late 2016, but Judge Skavdahl denied the motions.[24] After an extension of the briefing schedule, the petitioners and intervenor-petitioners filed their opening briefs on October 2, 2017.[25] The BLM filed a Motion to Dismiss or a Stay of Proceedings on December 11, 2017 requesting that the court either dismiss or stay the case while the BLM develops a proposed "Revision Rule."[26]

On December 8, 2017, The BLM has published a final rule suspending or delaying many of the provisions of the Venting and Flaring Rule until January 17, 2019.[27]

- **Legal Issues**: The main issues raised in the litigation include:
    - The scope of BLM's statutory authority to issue the Rule.
    - Whether the Rule is arbitrary and capricious.

- **Status:** Stayed while December 8, 2017 "Suspension Rule" is effective.

ii. State of California v. United States Bureau of Land Management; Sierra Club v. Ryan Zinke

- **Case Numbers:** 17-03804; 17-3885, U.S. District Court for the Northern District of California

- **Factual and Procedural Background**: On June 15, 2017, BLM issued a notice in the Federal Register that it was postponing the compliance dates for certain sections of the Venting and Flaring Rule (the "Postponement Notice").[28] BLM relied on Section 705 of the Administrative Procedure Act to postpone the compliance dates. [29]

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[22] *Id.*
[23] *Id.*
[24] Order at 29, *State of Wyoming v. U.S. Department of the Interior*, No. 16-285 (and consolidated case) (D. Wyo. Jan. 16, 2017).
[25] Order at 2, *State of Wyoming v. U.S. Department of the Interior*, No. 16-285 (and consolidated case) (D. Wyo. Oct. 30, 2017).
[26] Respondents' Brief, *State of Wyoming v. U.S. Department of the Interior*, No. 16-285 (and consolidated case) (D. Wyo. Dec. 11, 2017).
[27] "Waste Prevention, Production Subject to Royalties, and Resource Conservation; Delay and Suspension of Certain Requirements," 82 Fed. Reg. 58,050 (Dec.8, 2017).
[28] *See* Waste Prevention, Production Subject to Royalties, and Resource Conservation; Postponement of Certain Compliance Dates, 82 Fed. Reg. 27,430 (June 15, 2017).
[29] *Id.*

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Plaintiffs (California, New Mexico, conservation and tribal citizen groups) challenged BLM's Postponement Notice in the Northern District of California and brought a Motion for Summary Judgment.[30]

- **Legal Issues**:
  - Whether BLM exceeded its authority under Section 705 to stay compliance dates of a rule that had already gone into effect.
  - Whether BLM's justifications for the Postponement Notice were lawful

- **Holding**: The court found that BLM has "illegally invoke[d] Section 705 to issue the Postponement Notice and circumvent the APA's notice-and-comment requirements."[31] Therefore, the court vacated the Postponement Notice.[32]

D. Clean Power Plan

State of West Virginia v. United States Environmental Protection Agency (and consolidated cases)

- **Case Number:** 15-1363 (and consolidated cases), U.S. Court of Appeals for the D.C. Circuit

- **Background and Update**: EPA promulgated "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units" or "the Clean Power Plan" on October 23, 2015.[33] The numerous petitions for review were consolidated under the lead case *West Virginia v. EPA*, No. 15-1363. Oral arguments were held before the D.C. Circuit, sitting *en banc*, on September 27, 2016.

  On March 27, 2017, EPA moved to hold the consolidated challenges in abeyance.[34] In support, EPA cited the Executive Order, "Promoting Energy Independence and Economic Growth" that directed EPA to review the Clean Power Plan, as well as EPA starting such review and associated rulemakings.[35] The court granted the motion to hold the cases in abeyance for sixty days and ordered EPA to file status reports every thirty days.[36] The

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[30] *See California v. U.S. Bureau of Land Mgmt.*, No. 17-03804, 2017 WL 4416409, at *1 (N.D. Cal. Oct. 4, 2017).
[31] *Id.* at *13.
[32] *Id.* at *14.
[33] 80 Fed. Reg. 64,662 (Oct. 23, 2015).
[34] Motion To Hold Cases In Abeyance of Respondent EPA, *State of West Virginia v. United States Environmental Protection Agency*, No. 15-1363 (and consolidated cases) (D.C. Cir. Mar. 28, 2017).
[35] *Id.* at 1.
[36] Order at 2, *State of West Virginia v. United States Environmental Protection Agency*, No. 15-1363 (and consolidated cases) (D.C. Cir. Apr. 28, 2017).

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court, by its own motion, extended by abeyance for an additional sixty days on August 7, 2017 and on November 9, 2017.[37]

In the December 11, 2017 status update, EPA recommended that the cases remain in abeyance.[38] EPA pointed to the proposed rule repealing the Clean Power Plan, published in the Federal Register on October 16, 2017, in support of its recommendation.[39]

- **Legal Issues**: Many issues were raised in the litigation. The main issues include:
  - The scope of EPA's authority to issue the rule under Clean Air Act Section 111.
  - Record-based challenges regarding the requirements of the rule.
  - Whether the rule was barred persecution 111(d)(1)(A) because of Clean Air Act Section 112's regulation of hazardous air pollutants from power plants.

- **Status:** Held in abeyance during repeal process.

II. Enforcement Cases

A. Statutes of limitations for PSD violations

United States & Sierra Club v. Luminant Generation Company, LLC & Big Brown Power Company

- **Case Number:** 17-10235, U.S. Court of Appeals for the Fifth Circuit

- **Factual and Procedural Background**: EPA brought an action against Luminant in 2013 alleging that between 2005 and 2009 Luminant had modified the Martin Lake Power Plant and the Big Brown Power Plant without first obtaining a prevention of significant deterioration (PSD) permit or complying with the best available control technology (BACT) requirements, among other claims.[40] EPA sought injunctive relief, including compliance with PSD permitting requirements and BACT, and daily civil penalties for each day that the plants were operated without the necessary permits or BACT.[41]

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[37] Order at 1, *State of West Virginia v. United States Environmental Protection Agency*, No. 15-1363 (and consolidated cases) (D.C. Cir. Aug. 8, 2017); Order at 1, *State of West Virginia v. United States Environmental Protection Agency*, No. 15-1363 (and consolidated cases) (D.C. Cir. Nov. 9, 2017).
[38] Status Report of Respondent at 4, *State of West Virginia v. United States Environmental Protection Agency*, No. 15-1363 (and consolidated cases) (D.C. Cir. Dec. 11, 2017).
[39] *Id.*; 82 Fed. Reg. 48,035.
[40] Opening Brief for the Plaintiff-Appellant (United States) at 9, *United States v. Luminant Generation Co., LLC*, No. 17-10235 (5th Cir. June 6, 2017).
[41] *Id.* at 9-10.

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The District Court for the Northern District of Texas, Case No. 13-03326, largely dismissed the claims, holding that the claim for penalties for the PSD violations were time-barred under the statute of limitations.[42] The court reasoned that the alleged PSD violations occurred at the time of the modification and were not ongoing.[43] The court also dismissed the claims for injunctive relief, holding that because the legal claims were time-barred, the injunctive relief was also barred by the concurrent remedies doctrine.[44] The court also held that the Clean Air Act provides a remedy for PSD violations prior to construction and that injunctive relief is not available for past violations.[45]

The EPA appealed the district court's decision and the Sierra Club intervened in support of EPA.

- **Legal Issues**:
  - When does a claim accrue for a PSD violation?
  - Does the concurrent remedy doctrine restrict injunctive relief when the equitable claims are based on same underlying facts as claim barred by the statute of limitations?
  - Does the concurrent remedy doctrine apply to the United States?
  - Is injunctive relief available for past violations?

- **Potential Circuit Split:** Some circuit courts have already weighed in on these legal issues. For instance, the 10th Circuit held in 2016 that the PSD violation accrues the first day of construction of the modification.[46] The court then applied the concurrent remedy doctrine to bar injunctive or declaratory relief.[47] It noted, however, that the concurrent remedy doctrine does not apply to the government acting "in its sovereign capacity."[48]

- **Status**: Briefing completed on September 20, 2017. The Fifth Circuit has not issued a decision as of December 15, 2017.

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[42] *United States v. Luminant Generation Co., LLC and Big Brown Power Co., LLC,* No. 13-3236, slip op. at 13 (N.D. Tex. Aug. 21, 2015).
[43] *Id.*
[44] *Id.* at 14.
[45] *Id.*
[46] *Sierra Club v. Oklahoma Gas & Elec. Co.*, 816 F.3d 666, 674-75 (10th Cir. 2016).
[47] *Id.* at 676.
[48] *Id.*

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B. EPA's ability to challenge source's pre-construction emissions estimates

United States v. DTE Energy

- **Case Citation:** 845 F.3d 735 (6th Cir. 2017), *cert. denied*, No. 17-170, 2017 WL 3324982 (U.S. Dec. 11, 2017)

- **Factual and Procedural Background**: EPA filed an enforcement action against DTE Energy Co. and Detroit Edison Co. (collectively DTE) for a 2010 project at its Monroe, Michigan facility.[49] EPA alleged that DTE had performed a major modification without the appropriate New Source Review (NSR) permitting and associated requirements.[50] The district court granted summary judgment to DTE on the basis that enforcement was "premature" because no increase in actual post-project emissions had occurred.[51] The Sixth Circuit reversed and remanded, holding that EPA could enforce based on projected emissions.[52]

  On remand, the district court entered summary judgment for DTE a second time.[53] The district court relied on the Sixth Circuit's holding and held that the EPA could not "second-guess" DTE's pre-project projections of emissions increases.[54] EPA appealed.

- **Legal Issues**:
  - Whether only post-project data can prove a major modification for NSR purposes.
  - The extent to which EPA can review and challenge an operator's pre-project projections for compliance with the NSR regulations.

- **Holding**: The lead opinion of a split three-judge panel reinforced EPA's authority to enforce the NSR preconstruction projection requirements and that "actual post-construction emissions have no bearing on the question of whether DTE's preconstruction projections complied with the regulations."[55] The court again reversed and remanded the case back to the district court for further proceedings.

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[49] *United States v. DTE Energy Co.*, 845 F.3d 735, 737 (6th Cir. 2017), cert. denied, No. 17-170, 2017 WL 3324982 (U.S. Dec. 11, 2017).
[50] *Id.*
[51] *Id.*
[52] *Id.* (citing *United States v. DTE Energy Co.* (DTE I), 711 F.3d 643, 649 (6th Cir. 2013)).
[53] *Id.*
[54] *Id.*
[55] *Id.* at 741.

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- **EPA Response:** On December 7, 2017, EPA Administrator Scott Pruitt issued a memorandum addressing this and related cases.[56] The memorandum, among other things, emphasizes the importance of post-project emissions data in determining NSR applicability.[57] Based on this, the memorandum states that EPA will not step in and "second guess" an operator's pre-project emission projections absent "clear error."[58] In addition, EPA will not seek enforcement of cases such as DTE "pending further review of these issues by the courts and the EPA."[59]

C. Enforcement regarding VOC emissions from tank batteries

United States and the State of Colorado v. PDC Energy, Inc.

- **Case citation:** 1:17-cv-01552-MSK-MJW (D. Colo. October 31, 2017)

- **Factual and Procedural Background:** This is a joint enforcement case by EPA and Colorado Department of Public Health and Environment (CDPHE), relating to VOC emissions primarily from condensate tank batteries. The complaint identifies violations of the Colorado SIP related to 86 tank batteries but intimates potential violations at "hundreds more" batteries.[60] Federally enforceable state regulations require tank batteries to be designed and sized to achieve prescribed control and efficiency rates and to handle reasonably foreseeable fluctuations in VOC emissions; they must also be designed and operated to minimize VOC leaks "to the maximum extent practicable."[61]

  The complaint alleges that during 2013-2015 inspections, state inspectors observed VOC emissions from 64 batteries, and issued a 2015 compliance advisory.[62] In follow-up inspections, the Complaint alleges, CDPHE observed VOC emissions from some of the same batteries and from 14 new batteries.[63] Another Compliance Advisory followed in 2017. Meanwhile, in 2015 EPA issued a Clean Air Act Section 114 request for information regarding the Vapor Control Systems at a subset of the initial 64 batteries.[64]

  In this enforcement, EPA and CDPHE jointly alleged violations of the SIP-approved portions of Regulation 7, and CDPHE alone alleged violations of some of the state-only provisions of Regulation 7. Joint allegations included: failure to conduct an engineering design analysis to determine if the batteries' Vapor Control Systems had sufficient

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[56] E. Scott Pruitt, "New Source Review Preconstruction Permitting Requirements: Enforceability and Use of the Actual-to-Projected Actual Applicability Test in Determining Major Modification Applicability" (Dec. 7, 2017).
[57] *Id.* at 7.
[58] *Id.* at 8.
[59] *Id.*
[60] Complaint at 3, *United States and State of Colorado v. PDC Energy*, No. 1:17-cv-01552 (D. Colo. Oct. 31, 2017).
[61] *Id.* at 10-11.
[62] *Id.* at 14-15.
[63] *Id.*
[64] *Id.*

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capacity to route condensate tank emissions during peak flows; lack of capacity to convey all vapors to the combustor; and failure to inspect the system for liquids build-up.[65] State-only allegations included an insufficient Storage Tank Emission Management (STEM) plan to control venting; failure to maintain and operate the control equipment in a manner consistent with good air pollution control; and failure to operate without venting.[66]

- **Consent Decree Requirements:** The settlement included a $1.5 million civil penalty.[67] The main compliance requirements of the settlement are that PDC will:

    1. Perform engineering evaluations to ensure the vapor control systems for the identified tank systems are properly sized;
    2. Perform field studies and engineering evaluations of the tank systems and make any required modifications;
    3. Perform periodic record review and tank systems inspections and monitoring (including by IR camera), with associated corrective actions required; and
    4. Install tank pressure monitoring on certain tanks for at least 18 months to verify that tanks are not over-pressurized (which could lead to VOC emissions).[68]

D. Enforcement regarding fugitive VOC emissions at natural gas plants

United States v. Merit Energy

- **Case Citation:** Case No. 1:15-cv-455-PLM (W.D. Mich. July 20, 2015)

- **Factual and Procedural Background:** In the 2014 timeframe, EPA identified fugitive VOC emissions from natural gas processing plants as an enforcement initiative. The first consent decree on this topic was the *Merit Energy* decree. The allegations centered on violations of the Leak Detection and Repair (LDAR) provisions of NSPS Subpart KKK.

- **Consent Decree Requirements:** In addition to an $885,000 civil penalty,[69] the Consent Decree required LDAR monitoring at NSPS Subpart OOOO frequency and leak levels, and further imposed an "enhanced LDAR program" (ELP) on the facility. The main aspects of the ELP are:

    1. Attempts to repair a valve leaking between 250 ppm and the NSPS OOOO leak definition of 500ppm.

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[65] *Id.* at 15-18.
[66] *Id.* at 18-19.
[67] Consent Decree at 43, *United States and State of Colorado v. PDC Energy*, No. 1:17-cv-01552 (D. Colo. Oct. 31, 2017).
[68] *Id.* at 15-43.
[69] Consent Decree at 11, *United States v. Merit Energy*, No. 1:15-cv-00455-PLM (W.D. Mich. July 20, 2015).

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2. Requirement to attempt drill and tap repair if other repairs do not repair a leaking valve;

3. All new valves to the system must be low-emissions ("Low-E") and any existing valve found leaking above 500ppm must be replaced with a Low-E valve;

4. Extensive internal QA/QC on LDAR compliance;

5. A third-party audit of the LDAR program once every two years, including comparative monitoring, with a corrective action plan (CAP) triggered if comparative monitoring ratios are not within a certain amount; and

6. Other enhanced recordkeeping and reporting requirements .[70]

III. Statutory Interpretation

A. Courts defer to state interpretations of Clean Air Act terms

Grand Canyon Trust v. Energy Fuels Resources

- **Case Citation:** ---F. Supp. 3d --- , No. 2:14-cv-243, 2017 WL 4122614 (D. Utah Sept. 15, 2017).

- **Factual and Procedural History:** Citizens group Grand Canyon Trust (GCT) sued Energy Fuels (EF) under CAA Citizens Suit provision claiming EF's White Mesa Mill, a conventional uranium mill near Blanding, UT, did not comply with National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart W, which controls radon emissions from operating mill tailings.[71] Among other allegations, GCT alleged that EF illegally constructed waste impoundment Cell 4B, in violation of Subpart W's prohibition on more than two tailings impoundments being in operation at one time.[72] The Utah Department of Air Quality (DAQ) approved construction of Cell 4B, concluding it would not violate Subpart W because it was an evaporation pond, not a tailings impoundment.[73]

- **Legal Issues:** Can the court defer to state interpretation of federal Clean Air Act provisions?

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[70] *Id.* at 12-32.
[71] *Grand Canyon Trust v. Energy Fuels Resources*, --- F.3d---, No. 2:14-cv-243, 2017 WL 4122617, at *1 (D. Utah Sept. 15, 2017).
[72] *Id.* at *13.
[73] *Id.* at *14.

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- **Holding:** EF argued that the court should defer to DAQ's interpretation of Subpart W differentiating evaporation ponds from tailings impoundments. The Utah District Court granted EF's motion for summary judgment on this issue as well as other issues of statutes of limitations and interpretation of Subpart W.[74]

  Citing *Alaska Dep't of Envtl. Conservation v. EPA*, 540 U.S. 461, 490-91 (2004) as support for "some deference" to state agencies applying the CAA, the court deferred to Utah DAQ's interpretation of "tailings impoundment" and its subsequent approval of the construction of Cell 4B.[75] The court concluded that DAQ deserved deference because it was administering a federal law upon express delegation from Congress and its interpretation was consistent with federal law.[76] Utah has been delegated the NESHAP program, and DAQ's interpretation that Cell 4B did not violate Subpart W is not inconsistent with federal law. Subpart W's definition of "existing impoundments" specifically references tailings, but tailings impoundments are not defined by regulation or elsewhere in the CAA.[77] As the delegated agency, DAQ interpreted Subpart W's phased construction rule to apply to tailings impoundments and to exclude evaporation ponds. The court found this interpretation reasonable and consistent with Nuclear Regulatory Commission (NRC) conclusions regarding the difference between tailings impoundments and evaporation ponds.[78] Also, a revised version of Subpart W contains language differentiating the two types of impoundments and specifically applying the phased construction requirements to tailings ponds.[79]

- **Status**: The holding was not appealed.

B. Deference to agency interpretation of Clean Air Act

i. *Natural Resources Defense Council and Sierra Club v. Environmental Protection Agency*

- **Case Number:** 16-1413, U.S. Court of Appeals for the D.C. Circuit

- **Factual and Procedural Background:** EPA finalized the first "Exceptional Events Rule" in 2007.[80] The Exceptional Events Rule allows for the exclusion of air quality monitoring data influenced by unusual or naturally occurring events from certain regulatory

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[74] *Id.* at *22.
[75] *Id.* at *15
[76] *Id.* at *14.
[77] *Id.*
[78] *Id.* at *16.
[79] *Id.*
[80] 72 Fed. Reg. 13,560 (March 22, 2007).

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decisions associated with the attainment or maintenance of National Ambient Air Quality Standards (NAAQS).

EPA revised the Exceptional Events Rule in 2016 to address issues raised by stakeholders and to "increase the administrative efficiency" of the rule.[81] The revisions included changes to the definition of "natural events" and, accordingly, what qualifies as a natural event.[82] EPA defined a natural event as "an event and its resulting emissions, which may recur at the same location, in which human activity plays little or no direct causal role."[83] NRDC and Sierra Club challenged EPA's definition.

- **Legal Issue:** Whether the definition of "natural event" complies with the Clean Air Act.

- **Status:** Final briefs filed November 14, 2017.

ii. *National Environmental Development Association's Clean Air Project v. United States Environmental Protection Agency*

- **Case Number:** 16-1344, U.S. Court of Appeals for the D.C. Circuit

- **Factual and Procedural Background:** EPA issued the "Amendments to Regional Consistency Regulations; Final Rule" on August 3, 2016.[84] The Regional Consistency Regulations implement Clean Air Act Section 301(a)(2), which requires regulations to "assure fairness and uniformity" between EPA regions.[85] The challenged regulations address intercircuit nonacquiescence – not applying an adverse decision in states outside of the deciding Court of Appeals' jurisdiction.[86] Specifically, the regulations provide that an adverse federal court decision that arises from a challenge to locally or regionally applicable actions will not automatically apply uniformly nationwide.

- **Legal Issue:** Whether EPA's Amended Regional Consistency Rule is arbitrary and capricious or otherwise contrary to law under Clean Air Act Section 301(a)(2).

- **Status**: Briefing completed December 22, 2017.[87]

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[81] 81 Fed. Reg. 68,216, 68,220 (Oct. 3, 2016).
[82] *Id.* at 68,231.
[83] *Id.*
[84] 81 Fed. Reg. 51,102 (Aug. 3, 2016).
[85] 42 U.S.C. § 7601(a)(2).
[86] *See* Brief of Petitioners at 11, *Nat'l Environmental Dev't Assoc's Clean Air Project*, No. 16-1344 (D.C. Cir. Aug. 30, 2017).
[87] Order at 1, *Nat'l Environmental Dev't Assoc's Clean Air Project*, No. 16-1344 (D.C. Cir. Dec. 6, 2017).

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iii. *Murray Energy Corp. et al v. Administrator of Evnt'l Prot. Agency*

- **Case citation**: 861 F.3d 529 (4th Cir. 2017), *petition for cert filed*

- **Factual and legal background**: Murray Energy Corp. and other coal companies sued EPA under the citizens' suit provision of the Clean Air Act (CAA § 304, 42 USC § 7604), claiming that Section 321(a) of the CAA, 42 U.S.C. § 7621(a), creates a non-discretionary duty that EPA conduct continuing evaluations of the potential effects on employment caused by administration and enforcement of CAA provisions.[88] In a series of opinions denying EPA's motions to dismiss and for summary judgment, the West Virginia district court first agreed with Murray Energy that § 321(a) created a non-discretionary duty for EPA to conduct these continuing evaluations when it stated that EPA "shall" do so.[89] The West Virginia district court later agreed that Plaintiffs' alleged injuries (loss of jobs and revenue to the coal mining industry) were fairly traceable to the failure of EPA to conduct job-loss evaluations for various of its regulations, establishing standing for Plaintiffs.[90]

  EPA later proffered documents to prove its compliance with § 321(a), including economic impact analyses, white papers and other reports. These documents did not include site-specific employment effects of CAA regulation, however. The district court denied EPA's motion for summary judgment, finding the documents were not sufficiently particularized to fulfill § 321(a) requirements. The court granted Murray Energy's motion for summary judgment and required EPA to provide a plan and schedule for compliance with § 321(a) including in the specific area of the effects of the CAA on the coal industry. [91]

  In its response to this order, EPA stated that it had previously interpreted § 321(a) to require investigation into specific job losses or facility closures, when requested, and did not interpret the section to require employment investigations before taking regulatory action. The agency proposed a two-year schedule to prepare a § 321(a) report for the coal industry. The district court found that EPA had the information and ability to perform a § 321(a) evaluation of the effects on the coal industry of CAA regulations regarding the power generating industry and directed EPA to do so by July 1, 2017. Murray Energy had also moved the court to stay the effective date of any pending CAA regulations for the coal industry or coal-fired utilities until EPA complied with the court's order. The district court found section § 321(d) prohibited such relief and denied the motion.[92]

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[88] *Murray Energy Corp. v. Administrator of Environmental Protection Agency*, 861 F.3d 529, 533 (4th Cir. 2017).
[89] *Murray Energy v. McCarthy*, No. 5:14-CV-39, 2014 WL 4656221 (N.D. W. Va. Sept. 16, 2014).
[90] *Murray Energy Corp. v. McCarthy*, No. 5:14-cv-39, 2015 WL 1438036 (N.D. W. Va. March 27, 2015).
[91] *Murray Energy v. McCarthy*, No. 5:14-cv-39, 2016 WL 6083946 (N.D. W. Va. Oct. 17, 2016).
[92] *Murray Energy Corp. v. McCarthy*, 232 F. Supp. 3d 895 (N.D. W. Va. 2017).

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- **Legal issues**: Is the CAA § 321(a) requirement a non-discretionary duty that fits the jurisdictional grant in the citizens' suit provision?

- **Holding**: The Fourth Circuit disagreed with the district court's interpretation that the evaluation was a non-discretionary duty, and therefore found that the court lacked jurisdiction over the suit. The Fourth Circuit held that § 321(a) imposed a "broad, open-ended statutory mandate."[93] The court found that the act of evaluation, itself, required agency judgment, and the evaluation was to be performed on extensive regulatory and enforcement activities.[94] The court also relied on the fact that the evaluations are intended to be conducted on a continuous basis rather than within a specified timeframe. As further evidence of the discretionary nature of the evaluations, the statute does not provide specific guidelines, procedures or timelines for how the evaluations must be performed. This deprives the court of specific factors for analysis in judicial review.[95] Because it found that § 321(a) was not a non-discretionary duty, the Fourth Circuit determined that the district court lacked jurisdiction under § 304 to hear the matter. The district court's orders were vacated and the court was instructed to dismiss the suit for lack of jurisdiction.

- **Current Status**: Murray Energy filed a writ of certiorari on September 17, 2017; EPA has responded urging the Court to deny cert.

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[93] *Murray Energy v. Administrator of Envt'l Prot. Agency*, 861 F. 3d 529, 536 (4th Circ. 2017).
[94] *Id.*
[95] *Id.* at 537.

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LITIGATION UPDATE:
HIGHLIGHTS OF 2017
AIR QUALITY-RELATED LITIGATION

FEBRUARY 7, 2018

OLIVIA LUCAS, FAEGRE BAKER DANIELS LLP
JILL VAN NOORD, HOLLAND & HART LLP

Training Materials Only - Not Intended as Legal Advice

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OVERVIEW

- Introductions
- Recent caselaw impacting oil, gas, and mining development and operations
  - Regulatory challenges
  - Enforcement
  - Statutory Interpretation

REGULATORY CHALLENGES

- Ozone
- NSPS Subpart OOOOa
- BLM Venting and Flaring Rule
- Clean Power Plan

OZONE

Background: 2015 Ozone Rule lowers standard to 70 ppb

- Industry Sues to challenge substance
  - *Murray Energy Corporation v. Environmental Protection Agency*, Case No. 15-1385, Consolidated with 15-1392, 15-1490, 15-1491, and 15-1494 (D.C. Cir. 2015).
- March 2017 Executive Order
- EPA extends time to make ozone designations to Oct. 2018. 82 Fed. Reg. 29,246 (June 21, 2017).
  - States petition D.C. Circuit for review of deadline extension.
  - EPA withdraws deadline extension. But then references it again.
- States sue EPA for failure to timely designate attainment areas.
  - *California et al. v. Pruitt*, 3:17-cv-06936 (N.D. Cal. Dec. 5, 2017)
- Other avenues to attack ozone

NSPS SUBPART OOOOa

- Environmental groups contested EPA's 90-day stay of certain requirements under NSPS OOOOa. *Clean Air Council v. Pruitt,* 862 F. 3d 1 (D.C. Cir. 2017).
  - Fugitive emissions requirements
  - Well site pneumatic pump standards
  - Requirements for certification by PE of closed vent systems
- D.C. Circuit assumed jurisdiction over "emergency motion for stay or, in the alternative, summary vacatur" because the stay was a final agency action.
- The court decided that the reconsideration was not mandatory under CAA §307(d)(7)(B) and therefore the 90-day stay was not lawful.

NSPS SUBPART OOOOa

- The agency also proposed a 2-year stay of the regulations
  - 82 Fed. Reg. 27,645 (June 16, 2017)
- Although all sections of NSPS OOOOa are currently in effect, the 2-year stay is still pending
- June and August, 2017: States and environmental groups file notice of intent to sue letter regarding promulgation of NSPS for existing oil and gas facilities.

BLM VENTING AND FLARING RULE

- **Background:**
  - Waste Prevention, Production Subject to Royalties, and Resource Conservation Rule
    - Published Nov. 18, 2016
  - Stated purpose: "reduce waste of natural gas from venting, flaring, and leaks during oil and natural gas production activities on onshore Federal and Indian…leases"
- **Litigation: 3 cases**
  - *State of Wyoming v. U.S. Department of the Interior; Western Energy Alliance v. Jewell*
    - Petitioners challenged the rule in Wyoming District Court
      - Challenged BLM's authority to issue the rule
      - Court denied preliminary injunction
    - Status: stayed pending BLM review of the rule

BLM VENTING AND FLARING RULE

- **Litigation:**
  - *California v. BLM; Sierra Club v. Ryan Zinke*
    - Challenge to the "Postponement Notice"
      - BLM issued notice postponing compliance dates for certain aspects of the rule
      - Relied on APA § 705
    - Holding: Vacated the Postponement Notice
      - Held that BLM "illegally invoke[d] section 705 to issue the Postponement Notice and circumvent the APA's notice-and-comment requirements"
    - BLM has appealed to 9th Circuit

BLM VENTING AND FLARING RULE

- **Litigation:**
  - *California v. BLM; Sierra Club v. Ryan Zinke*
    - Challenge to "Suspension Rule"
      - BLM issued final rule suspending certain requirements of the Rule for one year on Dec. 8, 2017
    - Petitioners have moved for preliminary injunction enjoining the Suspension Rule

CLEAN POWER PLAN

- **Background:**
  - "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units"
  - Promulgated on October 23, 2015.
- ***West Virginia v. EPA (and consolidated cases)*, D.C. Circuit, 15-1363**

2/9/16	Supreme Court issued a stay of the rule
9/27/16	Oral arguments before the D.C. Circuit, sitting *en banc*
3/27/17	EPA asked the court to stay the consolidated challenges, citing EO 13783
4/28/17	Court granted the abeyance and ordered EPA to file regular status reports

CLEAN POWER PLAN

- ***West Virginia v. EPA* (cont.)**
  - Status:
    - EPA asked the court to continue to hold the cases in abeyance until rulemaking on the CPP completed
      - Proposed Repeal Rule: Oct. 10, 2017
      - Advanced Notice of Proposed Rulemaking: Dec. 28, 2017
    - CPP supporters objected to continued abeyance, requesting a denial of the request or, at a minimum, only 60 more days

ENFORCEMENT

- Luminant Generation
- DTE Energy
- PDC Energy
- Merit Energy

LUMINANT GENERATION

- ***United States & Sierra Club v. Luminant Generation Company, LLC***
  - 17-10235, 5th Circuit
- Background: Alleged PSD Violation
  - EPA 2013 action alleging Luminant modified 2 power plants between 2005 and 2009 without first obtaining PSD permit or comply with BACT
    - EPA sought injunctive relief and civil penalties
  - District Ct. for N.D. Tex largely dismissed:
    - Civil penalties time-barred by the 5-year statute of limitations
    - Injunctive relief barred by the concurrent remedies doctrine

LUMINANT GENERATION

- EPA appealed, Sierra Club intervened
- Legal Issues:
  - When does a claim accrue for a PSD violation?
  - Does the concurrent remedy doctrine restrict injunctive relief when the equitable claims are based on same underlying facts as claim barred by the statute of limitations?
  - Does the concurrent remedy doctrine apply to the United States?
  - Is injunctive relief available for past violations?

LUMINANT GENERATION

- Potential Circuit Split:
  - In 2016, the 10th Circuit in *Sierra Club v. Oklahoma Gas & Elec. Co.* held:
    - PSD violation accrues the 1st day of construction of the modification
    - The concurrent remedy barred injunctive relief
    - **BUT**, the concurrent remedy doctrine does not apply to a government acting "in its sovereign capacity"
- Status:
  - Briefing completed on Sept. 20, 2017

DTE ENERGY

- ***United States v. DTE Energy***
  - 845 F.3d 735 (6th Cir. 2017), *cert. denied*, No. 17-170, 2017 WL 3324982 (U.S. Dec. 11, 2017)
- Background: Alleged NSR Violation
  - EPA alleged DTE modified its facility in 2010 without appropriate New Source Review permitting requirements
- Case history:
  - District Court granted summary judgment to DTE
  - 6th Circuit reversed and remanded
  - District Court granted summary judgment to DTE again
  - 6th Circuit reversed and remanded again
  - Supreme Court denied DTE's petition for certiorari

DTE ENERGY

- Legal Issues include:
  - Whether only post-project data can prove a major modification for NSR purposes
  - The extent to which EPA can challenge an operator's pre-project projections for compliance with the NSR regulations
- 6th Circuit Decisions:
  - #1: EPA could enforce based on improperly projected emissions, even if no actual post-project emissions increases occurred
  - #2: Post-construction emissions "have no bearing" on whether complied with pre-project permitting requirements

DTE ENERGY

- EPA Response:
  - Pruitt NSR Policy Memo (Dec. 7, 2017)
    - EPA will not "second guess" an owner or operator's projected emissions
      - If the owner/operator performs the analysis and follows the recordkeeping and reporting requirements, then met its obligations unless "clear error"
    - EPA will focus enforcement on situations where the post-project emissions demonstrate a significant or significant net emissions increase occurred
    - EPA will not pursue DTE-type cases

PDC ENERGY

- Consent Decree filed in District of Colorado on October 31, 2017 – joint EPA/CDPHE enforcement stemming from 2013-2015 era alleged violations of VOC emission controls from tank batteries in DJ Basin non-attainment area.
- $2.5M civil penalty, $1.7M mitigation projects, and extensive compliance requirements related to vapor control systems for tank batteries
- Poster child for EPA enforcement vigor under new administration

MERIT ENERGY

- Consent decree filed in W.D. Michigan on July 20, 2015, apparently as part of EPA enforcement initiative regarding fugitive VOCs at natural gas plants.
- Focused on LDAR. Required "enhanced LDAR program" that imposed by consent decree the terms of EPA's October 2007 "Leak Detection and Repair – A Best Practices Guide"
- Current status of this enforcement initiative?

STATUTORY INTERPRETATION

- Deference to State Interpretation:
  - *Grand Canyon Trust v. Energy Fuels Resources*
- Deference to Agency Interpretation:
  - *NRDC & Sierra Club v. EPA*
  - *National Environmental Development Association's Clean Air Project v. EPA*
  - *Murray Energy Corp. v. Administrator of EPA*

GRAND CANYON TRUST V. ENERGY FUELS RESOURCES

- Utah Federal District Court defers to state of Utah's interpretation of terms in NESHAP Subpart W. ---F. Supp. 3d --- (2017) (D. Utah, Case No. 2:14-cv-243 (Sept. 15, 2017)

- Important precedent for a true cooperative federalism regime

NRDC & SIERRA CLUB V. EPA

- Exceptional Events Rule
  - Allows exclusion of air quality monitoring data influenced by exceptional events (high wind, wildfires) from NAAQS-related determinations
- Background:
  - EPA finalized the 1st Exceptional Events Rule in 2007
  - EPA revised in 2016
    - Changed definition of "natural events" as "an event and its resulting emissions, which may recur at the same location, in which human activity plays little or no direct causal role."

NRDC & SIERRA CLUB V. EPA

- Legal Issue:
  - Whether the "natural events" be exclusively natural in origin
    - NRDC/Sierra Club argue that the definition expands the CAA definition of exceptional event
- Status: Oral Argument March 22, 2018

NAT'L ENV'L DEV'T ASSOC.'S CLEAN AIR PROJECT V. EPA

- Regional Consistency Rule Challenge
  - D.C. Circuit, 16-1344
- Background:
  - Rules implement CAA § 301(a)(2)
    - "assure fairness and uniformity" between regions
  - Amendments to Rule finalized Aug. 3, 2016
    - Allows for intercircuit nonacquiescence
    - An adverse federal court decision that arises from a challenge to locally or regionally applicable actions will not automatically apply uniformly nationwide

NAT'L ENV'L DEV'T ASSOC.'S CLEAN AIR PROJECT V. EPA

- Amended Rule, cont.:
  - EPA regions do not need to seek concurrence from headquarters act inconsistently with national policy if needed to comply with regional decision
- Legal Issues:
  - Whether the rule violates the CAA by allowing regional inconsistencies
- Status: Briefing completed

MURRAY ENERGY V. EPA (CAA COSTS)

- West Virginia district court had required EPA to perform a specific evaluation of the impact of CAA regulations of coal fired power plants on the coal industry, but had declined Plaintiffs' request to stay all pending CAA regulations until the evaluation was complete.

- 4th Circuit held that the CAA § 321(a) requirement that EPA conduct continuing evaluations of potential loss or shifts of employment that may result from CAA administration or enforcement was a "broad, open-ended" requirement that could not the be subject of a § 304(a)(2) citizens' suit. *Murray Energy Corp. et al v. Administrator of Evnt'l Prot. Agency*, 861 F.3d 529 (4th Cir. 2017).

MURRAY ENERGY V. EPA (CAA COSTS)

- 4th Circuit: "The EPA is thus left with considerable discretion in managing its Section 321(a) duty. The agency gets to decide how to collect a broad set of employment impact data, how to judge and examine this extensive data, and how to manage these tasks on an ongoing basis. A court is ill-equipped to supervise this continuous, complex process." 861 F.3d at 537.

Questions?

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Clean Air Risk Management Plan Issues and Enforcement

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Paper 12

Clean Air Risk Management Plan Issues and Enforcement

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§ 1.Introduction

In response to terrifying chemical-release accidents in the U.S. and abroad, Congress enacted section 112(r) as part of the 1990 Clean Air Act Amendments. Section 112(r) required the Environmental Protection Agency (EPA) to publish regulations aimed at preventing accidental releases of various "extremely hazardous substances" and to minimize the consequences of accidental releases that do occur. The resulting "Risk Management Program" regulations—applicable to companies of all sizes—include development of risk management plans (RMPs), implementation of audit programs and a "general duty" to identify hazards that may result from accidental releases. Shortly before the inauguration of President Trump, EPA promulgated amendments to "modernize" the Risk Management Program in response to an executive order issued by then-President Obama. However, under new Administrator Scott Pruitt, EPA has since signed a final rule to delay the effective date of the amendments until February 19, 2019. Nevertheless, EPA has become increasingly active in section 112(r) enforcement efforts over the past several years, and the amendments—if they become final—contain new types of requirements that the regulated community might find challenging. Against

The views expressed in this paper are solely those of the author (or authors).

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this backdrop, this paper addresses the history and requirements of section 112(r) and its implementing regulations, summarizes the "modernized" section 112(r) requirements and their expected impacts—focusing specifically on refineries, and then related topics such as the relationship of the Risk Management Program to OSHA regulations, and regulatory enforcement.

§ 2.Section 112(r) of the 1990 Clean Air Act Amendments

In the 1990 Clean Air Act Amendments, Congress authorized and directed EPA to create regulations that prevent explosive chemical accidents that could cause death and injury beyond facility fences.[1] The Senate Committee on Environment and Public Works, in its report on a version of what ultimately became the 1990 Amendments, pointed to a number of reasons for the new directive.[2] Among other things, it cited an accidental toxic release of methyl isocyanate in August of 1985 in Institute, West Virginia, which sent 409 residents and workers to emergency rooms, and a summary from EPA of 11,048 accidental releases of extremely hazardous substances in the U.S. between 1982 and 1986.[3] The West Virginia incident occurred approximately nine months after the facility's sister operation in Bhopal, India released the same chemical, killing 3,400 people and injuring 200,000.[4] Following these incidents, the Occupational Safety and Health Administration (OSHA) and EPA launched efforts to examine the potential for injury and damage from such accidental releases.[5] OSHA concluded that its

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[1] 42 U.S.C. § 7412(r)(7).

[2] S. REP. NO. 101-228 (1989), *as reprinted in* 1990 U.S.C.C.A.N. 3385.

[3] *Id.* at 3519.

[4] *Id.*

[5] *Id.* at 3520.

program was better suited than EPA's program "to protect worker safety and health against common hazards, not rare catastrophic events."[6] In response, Congress designed section 112(r) to close the gap between the two agencies by giving EPA the ability to issue rules for the prevention, detection and correction of accidental releases of extremely hazardous substances.[7]

EPA responded in the 1990s by promulgating the Risk Management Program regulations, which require owners and operators of regulated facilities to, among other things, conduct worst-case scenario hazard analyses and plan for emergency responses in case the contemplated releases actually occur. Regulated facilities include "any buildings, structures, equipment, installations, or substance emitting stationary activities" from which an accidental release may occur.[8] Thus, the scope of section 112(r) and its implementing regulations is broad. This paper turns to a couple of the primary risk-prevention concepts in the statute: RMPs and the "general duty" that Congress imposes on the regulated community to address accidental releases of extremely hazardous substances.

[1] Risk Management Plans

In the Clean Air Act, Congress directed EPA to "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."[9] Congress further instructed that the

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[6] *Id.* at 3521.

[7] *Id.* at 3528.

[8] 40 C.F.R. §§ 68.3 (definition of "Stationary source"), 68.130.

[9] 42 U.S.C. § 7412(r)(7)(B).

regulations would have to require regulated entities to submit "a risk management plan to detect and prevent or minimize accidental releases" of regulated substances.[10]

EPA promulgated regulations implementing Congress' requirements as the Chemical Accident Prevention Provisions, at Part 68, Title 40 of the Code of Federal Regulations. To comply with the statute and implementing regulations, a regulated facility must submit an RMP to EPA if it has more than a "threshold quantity of a regulated substance in process."[11] An RMP must cover three main areas: the potential effects of a chemical accident, steps the facility is taking to prevent an accident and emergency response procedures should an accident occur.[12] Specific elements of the RMP vary somewhat depending on the substances involved and the facility's history. Generally, an RMP must include (i) an offsite-consequence analysis of worst-case release scenarios;[13] (ii) a five-year accident history;[14] (iii) information regarding prevention programs for accidental releases, with the prevention requirements becoming increasingly rigorous depending on whether EPA would consider the facility to require a "Program 1," "Program 2" or "Program 3" accident-prevention program;[15] and (iv) information regarding an

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[10] *Id.* § 7412(r)(7)(B)(ii).

[11] 40 C.F.R. § 68.10(a).

[12] RISK MANAGEMENT PLAN (RMP) RULE OVERVIEW (Nov. 21, 2017, 1:37 PM), https://www.epa.gov/rmp/risk-management-plan-rmp-rule-overview.

[13] 40 C.F.R. § 68.165.

[14] 40 C.F.R. § 68.168.

[15] 40 C.F.R. §§ 68.170, 68.175

emergency response plan.[16] Thus, the Risk Management Program regulations require both backward- and forward-looking analyses, and consideration of various "what-if" scenarios.

[2] The General Duty Clause

In the "General Duty Clause" (GDC), Congress subjected the owners and operators of regulated facilities to a broad duty to prevent and mitigate accidental releases in addition to the more specific requirements such as those for RMPs:

> 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.[17]

Section 654, Title 29, referenced in the statute, is the general duty clause in the Occupational Safety and Health (OSH) Act, which states, in relevant part, that each employer "shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees."[18] The GDC and the reference to OSH Act put the responsibility on the owner and operator of a facility not only to design and maintain a safe facility, but also to use all feasible means to reduce the threat of death, substantial injury or property damage.[19] Congress also

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[16] 40 C.F.R. § 68.180.

[17] 42 U.S.C. § 7412(r)(1).

[18] 29 U.S.C. § 654(a)(1).

[19] 1990 U.S.C.C.A.N. at 3594-95.

included the GDC in response to concerns expressed by EPA that, absent the clause, EPA or the federal government might be liable for failure to respond to a reported hazard.[20]

Unlike RMPs, there are no specific regulations implementing the GDC, and there are no substance thresholds. In other words, even if a facility uses a regulated substance in amounts below the threshold for submitting an RMP, the facility is still subject to the "general duty," and could be subject to penalties for violating the GDC under Clean Air Act section 113(b).[21]

§ 3."Modernized" Section 112(r) Requirements for Refineries

In 2013, a massive explosion at a fertilizer storage and distribution facility in West, Texas, fatally injured volunteer firefighters and members of the public.[22] President Obama responded by ordering EPA to review how it regulated fence-line risks.[23] In 2016, EPA proposed to "modernize" the Risk Management Program regulations. On January 13, 2017, EPA published amendments (the "Amendments") to the Risk Management Program regulations that subjected regulated facilities to third-party audit, root-cause analysis, safer technology and alternatives analysis, information availability, and public-participation requirements that would

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[20] *Id.* at 3595.

[21] Environmental Protection Agency, 550-F-09-002, The General Duty Clause (2009), https://www.epa.gov/sites/production/files/2013-10/documents/gdc-fact.pdf.

[22] U.S. Chemical Safety and Hazard Investigation Board, INVESTIGATION REPORT, FINAL, WEST FERTILIZER COMPANY FIRE AND EXPLOSION, § 1.1 at p. 13 (2016). On May 11, 2016, the Bureau of Alcohol, Tobacco, Firearms and Explosives ruled that the fire was intentionally set. *See* ATF Announces $50,000 Reward in West, Texas Fatality Fire, https://www.atf.gov/news/pr/atf-announces-50000-reward-west-texas-fatality-fire.

[23] Exec. Order No. 13650 (Aug. 1, 2013).

phase in over a five-year period.[24] The intent of the amendments was to "further protect human health and the environment from chemical hazards through advancement of process safety management based on lessons learned."[25] Specific "social benefits" identified by EPA included: reduced fatalities, injuries, and property damage; fewer evacuations and people sheltered in place; avoided lost productivity, emergency response costs, transaction costs, property value impacts, and environmental impacts; and improved efficiency of property markets and emergency response resource allocations.[26]

EPA originally set March 14, 2017, as the Amendments' effective date. However, the Trump administration's January 20, 2017 "regulatory freeze" and the regulated community's aggressive pushback convinced EPA to propose further delaying the effective date of the Amendments until February 19, 2019.[27] Given the compliance dates in the Amendments, this delay pushes the deadline for implementation for many provisions to 2022 or later.[28]

There has been speculation that EPA may revisit the Amendments entirely, or that Congress could use its Congressional Review Act authority to overturn them. However, EPA's website still lists "Reducing Risks of Accidental Releases at Industrial and Chemical Facilities

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[24] 82 Fed. Reg. 4594 (Jan. 13, 2017).

[25] *Id.* at 4595.

[26] *Id.* at at 4598 (Table 4).

[27] 82 Fed. Reg. 16146 (Apr. 3, 2017); 82 Fed. Reg. 13968 (Mar. 16, 2017); 82 Fed. Reg. 8499 (Jan. 26, 2017); 82 Fed. Reg. 8346 (Jan. 24, 2017); *see also* EPA, "Final Amendments to the Risk Management Program (RMP) Rule" (2017), https://www.epa.gov/rmp/final-amendments-risk-management-program-rmp-rule.

[28] 82 Fed. Reg. 4594, 4675, 4678 (Table 6).

(Fiscal Years 2017-2019)" as a National Enforcement Initiative,[29] and it is unclear whether the current Congress will be able to take action on anything of substance. Accordingly, industry would be wise to take note and begin planning for the Amendments to take effect eventually. Significant or noteworthy portions of the Amendments are summarized below.

[1] Third-Party Audits

The Amendments do not change the requirement to conduct regular Risk Management Program audits. They do add the requirement that facilities with Program 2 or Program 3 processes conduct third-party audits in two circumstances: (1) if they have had an RMP-reportable incident, or (2) if the implementing agency determines that conditions at the facility could lead to an accidental release of a regulated substance or that a prior third-party audit failed to meet the competence or independence criteria set out in the Amendments.[30] Such third party-audits must be completed within twelve months of the incident or agency determination (as applicable), unless the implementing agency specifies a different timeframe.[31] Facilities can appeal a final determination requiring a third-party audit to the EPA Regional Administrator (or the administrator or director of the applicable implementing agency).[32] A facility owner or

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[29] National Enforcement Initiative: Reducing Risks of Accidental Releases at Industrial and Chemical Facilities (Fiscal Years 2017-2019), https://www.epa.gov/enforcement/national-enforcement-initiative-reducing-risks-accidental-releases-industrial-and. As shown by the website, information on this National Enforcement Initiative is sparse.

[30] *Id.* at 4595, 4610-11.

[31] *Id.* at 4611.

[32] *Id.* at 4697.

operator must submit required third-party audit reports to the audit committee of its Board of Directors, or other comparable committee or individual.[33]

The Amendments also added requirements regarding the qualifications and independence of third-party auditors.[34] A facility must either engage a third-party auditor that meets all the competency and independence criteria of the Amendments, or assemble an auditing team led by a third-party auditor that meets such competency and independence criteria.[35] The competency requirements state that the third-party auditor must be: "(i) [k]nowledgeable with the requirements" of the rule, "(ii) [e]xperienced with the stationary source type and processes being audited and applicable recognized and generally accepted good engineering practices," and "(iii) [t]rained and/or certified in proper auditing techniques."[36] The auditor must act impartially in the conduct of the audit, have policies and procedures to guarantee personnel comply with the independence requirements, and ensure all third-party personnel involved in the audit sign statements documenting that they meet the independence requirements.[37] The auditor must receive no financial benefit from the outcome of the audit, other than payment for the audit services.[38] Retirees are eligible to serve as independent third-party auditors if their sole continuing financial attachment to facility owner or operator is a retirement or health plan.[39]

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[33] *Id.* at 4701.

[34] *Id.* at 4611, 4697-98.

[35] *Id.*

[36] *Id.* at 4611, 4698.

[37] *Id.*

[38] *Id.*

[39] *Id.*

Former employees and contractors also can be independent third-party auditors if they have not conducted research, development, design, construction services, or consulting for the owner or operator within the last two years, and do not provide such services for at least two years following the final audit report.[40]

The third-party auditing requirements enacted by EPA contain several important changes from the proposed Amendments, which were made in response to comments. First, EPA removed as a competency requirement the condition that an auditor be a professional engineer (P.E.).[41] EPA also removed the requirement that the entire "auditing team" meet the competency and independence requirements of the Amendments.[42] EPA agreed with commenters that a variety of qualified personnel could be effective third-party auditors (that is, a P.E. is not necessary to be an effective auditor), and that applying competency and independence criteria to all members of an auditing team would reduce the number of qualified auditors and increase costs of auditing.[43] In the preamble to the final Amendments (the Preamble), EPA also recognized the common practice at facilities to include in audit teams employees with specific skills, expertise, or knowledge, thereby increasing the efficiency and effectiveness of the audit teams.[44] Similarly, in recognition of the industry practice of hiring into audit firms retired or

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[40] *Id.*

[41] *Id.* at 4610, 4620.

[42] *Id.* at 4610.

[43] *Id.* at 4610-21.

[44] *See id.* at 4620-21, 4624 ("EPA encourages owners or operators, when assembling both third-party audit teams and conducting self-audits . . . to include on their teams a mix of personnel previously familiar, and unfamiliar, with the specific facilities they are tasked with auditing.").

other skilled personnel precisely because of their experience at regulated facilities, EPA revised the proposed Amendments to clarify the ability of retirees to serve as independent third-party auditors, and decreased from three years to two the amount of time a third-party auditor is prohibited from working for a facility either before or after an audit.[45]

One final change to the proposed Amendments regarding third-party audits is particularly important for attorneys representing companies conducting such audits. EPA initially proposed language that specifically stated that the "third-party audit and related records could not be claimed as attorney-client communications or as attorney work products, even if written for or reviewed by legal staff."[46] This language was removed in the final version of the Amendments, but EPA commentary in the Preamble clearly indicates that EPA holds a view that is consistent with the proposed language, and will likely scrutinize any privilege or work-product claims asserted for documents related to third-party audits.[47] EPA's discussion can help provide guidance to attorneys as they advise on and review audits for clients.

[2] Root-Cause Analysis

Under the Amendments, all facilities with Program 2 or 3 processes must conduct a root-cause analysis as part of an incident investigation of a catastrophic release or a "near-miss."[48] Such investigations must be complete within twelve (12) months of the release or near miss, unless the implementing agency approves an extension request, in writing.[49] EPA considers (but

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[45] *See id.* at 4611, 4622.

[46] *Id.* at 4610.

[47] *Id.* at 4614, 4625.

[48] *Id.* at 4595.

[49] *Id.* at 4607.

does not define) a "near miss" to be an incident that could have reasonably resulted in a catastrophic release.[50] The Amendments define "Root cause(s)" as a "fundamental, underlying, system-related reason why an incident occurred," and specify that a root cause must be identified through the "use of a recognized method."[51]

EPA specifically declined to identify what constitutes a "recognized method" for purposes of determining a root cause.[52] It explained that "[i]nvestigation methods evolve over time, and new methods may be developed, so any list promulgated by EPA in this rule may soon be obsolete."[53] EPA recommended that facilities consult "available literature on root cause investigation" and referenced as a source of helpful information the Center for Chemical Process Safety Guidelines for Investigating Chemical Process Incidents.[54]

[3] Safer Technology and Alternatives Analysis

The Amendments require facilities with Program 3 processes in North American Industrial Classification System (NAICS) codes 322 (paper manufacturing), 324 (petroleum and coal products manufacturing), and 325 (chemical manufacturing) to conduct a safer technology and alternatives analysis (STAA) and evaluate the practicability of any inherently safer

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[50] *Id.* at 4595. EPA considered adding a regulatory definition of "near-miss," but declined to do so. *Id.* at 4605-06. Instead, EPA stated that "[t]he criteria for determining incidents that require investigation will continue to include events that 'could reasonably have resulted in a catastrophic release.'" *Id.* at 4605.

[51] *Id.* at 4696 (definition of "Root cause" in 40 C.F.R. § 68.3).

[52] *Id.* at 4609.

[53] *Id.*

[54] *Id.*

technology (IST) identified, both as part of facilities' Process Hazard Analyses (PHAs).[55] The current Risk Management Program regulations require updating PHAs every five years.[56]

As explained by EPA, STAA refers to risk reduction strategies developed using a hierarchy of controls that are considered *inherent, passive, active, and procedural*.[57] This includes the concept of IST (also known as ISD, or inherently safer design), which "reduce[s] or eliminate[s] the hazards associated with materials and operations used in process."[58] According to EPA, "the four major inherently safer strategies" are: (1) minimization (using smaller quantities of hazardous materials); (2) substitution (using less hazardous materials); (3) moderation (using a less hazardous form of materials, under less hazardous conditions, or designing facilities to minimize impacts of a release); and (4) simplification (designing facilities to eliminate complexity and reduce operational errors).[59]

The Amendments require facilities in the identified NAICS codes to go through the STAA process as part of their PHAs, by considering, in order of preference, IST or ISD, passive measures, active measures, and procedural measures.[60] In doing so, the facility must determine

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[55] *Id.* at 4595.

[56] *Id.*

[57] Environmental Protection Agency, Office of Land and Emergency Management, EPA Activities under EO 13650: Risk Management Program (RMP) Final Rule Questions & Answers (Dec. 2016), https://www.epa.gov/sites/production/files/2016-12/documents/rmp_final_rule_qs_and_as_12-21-16_final_formatted_342.pdf.

[58] *Id.*

[59] *Id.*

[60] 82 Fed. Reg. 4594, 4629, 4696.

the "practicability" of such measures to achieve a reduction in risk at the facility.[61] The Amendments add definitions of "inherently safer technology or design" (which identifies the four major strategies noted above), "active measures" ("risk management measures or engineering controls that rely on mechanical or other energy input to detect and respond to process deviations" such as alarms and detection hardware), "passive measures" ("risk management measures that use design features that reduce either the frequency or consequence of the hazardous without human, mechanical, or other energy input" such as dikes and berms) and "procedural measures" ("risk management measures such as policies, operating procedures, training, administrative controls, and emergency response actions to prevent or minimize incidents").[62] The Amendments also define "practicability" in a way that recognizes the many and varied inputs to facility decisions: "the capability of being successfully accomplished within a reasonable time, accounting for economic, environmental, legal, social and technological factors. Environmental factors would include consideration of potential transferred risks for new risk reduction measures."[63] For further guidance on what constitutes "practicability," EPA referred to guidance from the New Jersey Department of Environmental Protection.[64]

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[61] *Id.*

[62] *Id.* at 4696.

[63] *Id.*

[64] 82 Fed. Reg. 4636, referencing the New Jersey Department of Environmental Protection's Guidance for Toxic Catastrophe Prevention Act (TCPA)-Inherently Safety Technology (IST) Review, Attachment 1 Feasibility guidance, http://www.nj.gov/dep/enforcement/tcpa/downloads/IST_guidance.pdf.

[4] Emergency Preparedness and Response Enhancements—Coordination

The Amendments attempt to enhance emergency preparedness in two ways. The first is by requiring facilities with Program 2 or 3 processes to coordinate with local emergency response agencies at least once a year to determine how the facility is addressed in its community emergency response plan, and to ensure that local response organizations are aware of the regulated substances at the facility, the risks posed by those substances, and the ability of the facility itself to respond to an accidental release at the facility.[65] Such facilities must also: (1) conduct notification exercises annually (to ensure their emergency contact information is accurate and complete); (2) conduct field exercises at least once every ten years;[66] and (3) conduct tabletop exercises at least once every three years.[67]

EPA's Preamble makes a few comments on the emergency coordination provisions that are worthwhile to note. First, EPA clearly stated that it intended to place the burden on *facilities*—and not Local Emergency Planning Committees (LEPCs), emergency response agencies, or other involved community organizations—to carry out coordination activities in the final rule.[68] EPA specifically noted that "[l]ocal response organizations are not obligated to participate in the coordination activities specified in the final rule."[69]

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[65] 82 Fed. Reg. 4594, 4595.

[66] A facility that has an RMP-reportable incident may use its response to the incident to satisfy the field-exercise-response requirement if its documentation of the response is comparable to that required of a field exercise. *Id.* at 4595.

[67] *Id.*

[68] *Id.* at 4656.

[69] *Id.*

Second, despite placing this burden on facilities, EPA did seem to endorse the idea that a facility must simply use "good faith" efforts to ensure coordination.[70] For example, with respect to the required annual coordination meeting, EPA explained that it "worded the meeting requirement to only require the owner or operator to request such a meeting, so that the owner or operator would not be required to hold a meeting if local authorities are unable or unwilling to participate."[71] With respect to coordination activities generally, EPA similarly recognized the possibility that a facility might not obtain cooperation as envisioned by the Amendments:

> If local emergency planning and response organizations decline to participate in coordination activities, or the owner or operator cannot identify any appropriate local emergency planning and response organization with which to coordinate, the owner or operator should document their coordination efforts, and continue to attempt to perform coordination activities at least annually.[72]

Finally, commenters to the proposed Amendments identified the concern that EPA could use the evaluation reports required to be completed following required exercises in a subsequent enforcement action. EPA did not dispute this concern, instead noting that such a report is just like any other record required under 40 C.F.R. Part 68, and stating that whether a report would be used would "depend on the specific facts and circumstances of the case."[73]

[5] Emergency Preparedness and Response Enhancements—Information Availability and Public Participation

The second way the Amendments attempt to enhance emergency preparedness is through additional information availability and public participation requirements. Facilities must share

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[70] *Id.*

[71] *Id.* at 4657.

[72] *Id.* at 4656.

[73] *Id.* at 4665.

information relevant to the emergency response planning with the LEPC or other local emergency response agencies.[74] In response to concerns regarding security and duplication with other statutory schemes (such as the Emergency Planning and Community Right to Know Act, or EPCRA), EPA declined to specify the types or formats of information considered "relevant" under the Amendments, instead opting to leave this determination to the LEPCs and other local emergency officials.[75] EPA assumed that "relevant" information would be identified as part of the emergency coordination activities that occur between the facility and the local emergency response agencies.[76]

The Amendments also require facilities to provide the following to the public within 45 days of a request: (1) the RMP itself; and (2) chemical hazard information for all regulated processes, including: (a) names of regulated substances, (b) safety data sheets, (c) a five-year accident history and related information, (d) emergency response information (including designation as responding or non-responding, name and phone number of local emergency response organizations with which the facility last coordinated emergency response efforts, and procedures for informing the public and local emergency response agencies about accidental releases), (e) a list of scheduled exercises, and (f) LEPC contact information.[77] The facility owner or operator must provide "ongoing" notification of availability of this information (including how to request the information) to the public on a website, social medial platform, or

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[74] *Id.* at 4596.

[75] *Id.* at 4666-67.

[76] *Id.* at 4596.

[77] *Id.* at 4596, 4667, 4704.

some other publicly accessible means.[78] The notification also must tell the public where to access community preparedness information, such as shelter-in-place and evacuation procedures.[79] In the Preamble, EPA noted that other "publicly-accessible means" of notification could include hard copy notices at publicly accessible locations, such as public libraries, local government offices, or e-mail.[80]

Finally, the Amendments require facilities to hold a public meeting within 90 days of an RMP-reportable incident.[81] In these public meetings, the facility must provide all information that is required to be kept for each release as part of the facility's five-year accident history, specifically: (1) date, time, and duration of the release; (2) chemicals released; (3) estimated quantities released; (4) the NAICS code; (5) the type of release event and its source; (6) weather conditions; (7) onsite impacts; (8) offsite impacts; (9); initiating event and contributing factors (if known); (10) whether offsite responders were notified; and (11) any operational or process changes that resulted from the investigation of the release.[82] The facility also must provide "other relevant chemical hazard information," such as the information that is available from a facility to the public upon request (*i.e.*, the chemical hazard information for all regulated processes).[83]

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[78] *Id.*

[79] *Id.* at 4596, 4667, 4705.

[80] *Id.* at 4670.

[81] *Id.* at 4596.

[82] *Id.* at 4672, 4705; *see also* 40 C.F.R. 68.42.

[83] 82 Fed. Reg. 4594, 4672, 4705.

In the Preamble, EPA suggested (but did not require) that the content of the public meeting also include a facility's description of "the risks that are associated with the facility and what the facility is doing to protect the public from those risks" and "relay information that would assist the public to prepare for accidental releases."[84] EPA noted that it would be "extremely useful" if the LEPC and other local emergency response officials participated in the meeting "to discuss the community emergency response plan and explain how the facility is incorporated into the plan" but again, stopped short of requiring such participation.[85]

§ 4. Practical Impact of the "Modernized" Requirements and Recommendations for Facilities

The impact of the Amendments largely depends on an existing facility's sophistication and current processes. But there are a number of actions facilities can take now to prepare for when (and if) the Amendments become effective. Many of these are "no regret" or "low regret" actions; that is, they do not require significant investments of either time or money that will be lost if the Amendments are withdrawn.

With respect to the third-party audit requirements, many facilities conduct third-party audits as a matter of course. These facilities should evaluate whether their auditors meet the competence and independence criteria in the Amendments, and if they do not meet the criteria, then the facilities should identify auditors that do. Facilities that typically use in-house audit teams should identify third-party auditors that they can utilize if needed. At the very least, all facilities should begin asking potential third-party auditors and audit firms how they plan to meet the requirements of the Amendments, so that they are prepared once (and if) the Amendments become effective.

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[84] *Id.* at 4672.

[85] *Id.*

Given the delay in the effective date of the Amendments, facilities have time to review their incident investigation and PHA processes to determine compliance with the Amendments regarding root-cause analysis, STAA, and IST. Again, many facilities already include these new requirements in their PHA processes. But even those facilities that already include these requirements should review their current practices to ensure alignment with the specifics in the Amendments, including by identifying current "recognized methods" of determining root causes and reviewing the New Jersey Department of Environmental Protection guidance referenced by EPA. Facilities may want to review their documentation requirements to make sure they account for the need to establish "practicability" or lack thereof.

Facilities also should make use of the delay in the Amendments' effective date to build or strengthen relationships with LEPCs and community response organizations, including fire departments. This effort may include discussing whether such organizations can or will participate in exercises and public meetings. Facilities should begin thinking about (and even budgeting for) ways to ensure this cooperation. And if it appears local organizations may not cooperate, facilities may want to create forms, checklists, or other documents that will help them show their "good faith" efforts to obtain cooperation.

The multiple ways in which the Amendments necessitate additional documentation—whether required by the language of the Amendments or by their practical impact—raise an important question for facilities regarding their written records: are they accurate, complete, and do they represent your facility appropriately? This is by no means a new inquiry, but it does remind facilities to think about whether and how they are training the individuals responsible for this documentation. Do these individuals at your facility stick to facts, or do they speculate unnecessarily? Do they use informal language that might inaccurately reflect the results of an

exercise? Do they fully understand the need for accuracy and truthfulness? Facilities should assume that EPA and the public will see exercise evaluations, RMPs, and associated documentation. When they do, what will they see?

Relatedly, in addition to creating a process and assigning roles, responsibilities, and accountabilities for responding to public information requests, facilities should engage the appropriate functions within their organizations to ensure that they are prepared for additional questions and concerns raised by the information submitted in response to these requests. These functions also will be helpful in planning for possible public meetings, including by deciding how to explain facts and information that may not yet be available within the 90-day timeframe required for these meetings.

Finally, lawyers should review EPA's language in the Preamble regarding the attorney-client privilege and audits. While it is clear that final audits themselves are not privileged, the question remains open whether communications or other documents related to audits can be protected by attorney-client privilege or the attorney work-product doctrine. To avoid a fight with EPA, however, lawyers representing facilities should consider how they can best advise on and review audit findings without jeopardizing confidentiality.

§ 5.Relationship of Risk Management Program to OSHA Process Safety Management

As part of the 1990 Clean Air Act Amendments, Congress also directed the Secretary of Labor, in coordination with the EPA Administrator, to promulgate a chemical process safety standard under the OSH Act designed to protect employees from hazards associated with accidental releases of highly hazardous chemicals in the workplace.[86] The OSHA process safety

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[86] 29 U.S.C. § 655 note (CHEMICAL PROCESS SAFETY MANAGEMENT); *accord* 82 Fed. Reg. 4594, 4599. The OSHA PSM standard was published in 1992. 57 Fed. Reg. 6456 (Feb. 24, 1992).

management (PSM) regulations share the same goal as the Risk Management Program—"to prevent or minimize the consequences of accidental chemical releases through implementation of management program elements that integrate technologies, procedures, and management practices."[87] They largely parallel the Risk Management Program regulations; in fact, many facilities manage the Risk Management Program and PSM as one program, with the same policies, procedures, and guidelines.[88]

Similar to EPA's promulgation of the Amendments, OSHA proposed revisions to the PSM regulations in response to Executive Order 13650, "Improving Chemical Facility Safety and Security," after the West, Texas fertilizer-plant explosion.[89] When EPA published the Amendments, OSHA already had completed a Small Business Advocacy Review Panel report on its proposed PSM revisions.[90] However, OSHA has not yet promulgated final PSM revisions.

In light of the similarity between the Risk Management Program and PSM regulations, industry practice, and the seemingly similar amendment schedules, it is no surprise that commenters on the proposed Amendments noted a variety of potential conflicts, inconsistencies,

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[87] 82 Fed. Reg. 4594, 4600.

[88] *Id.* at 4687.

[89] 78 Fed. Reg. 73756 (Dec. 9, 2013); *see also* OSHA, Process Safety Management, https://www.osha.gov/dsg/psm/index.html.

[90] Report of the Small Business Advocacy Review Panel on OSHA's Potential Revisions to the Process Safety Management Standard (Aug. 1, 2016), available at https://www.regulations.gov/document?D=OSHA-2013-0020-0116.

redundancies, or confusion vis-a-vis the PSM regulations.[91] Commenters even suggested that EPA withdraw the proposed Risk Management Program rulemaking to allow closer coordination with OSHA's PSM rulemaking.[92]

While acknowledging that further work was needed to harmonize and streamline Risk Management Program and PSM regulations,[93] EPA deflected these comments.[94] EPA contended that the record adequately reflected EPA's coordination with OSHA with respect to the

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[91] *See, e.g.*, 82 Fed. Reg. 4594, 4603 (noting that commenters argued that EPA's proposed definition of "catastrophic release" was redundant of OSHA's authority); 4607 (disagreeing with the comment that incident investigation team requires were already covered by the OSHA PSM standard); 4631 (discussing comments that STAA and IST analyses were more properly within the scope of OSHA); 4638 ("[a] facility noted that the proposed definition of 'feasible' . . . could cause the potential for confusion because the proposed rulemaking preamble states that OSHA has indicated that it would be unable to adopt the term feasible, as defined in this notice, under its PSM standard . . . .").

[92] *Id.* at 4688.

[93] *Id.* at 4638 ("This is an illustration of the need to harmonize the requirements of EPA RMP requirements with that of OSHA PSM.").

[94] *Id.* at 4631, 4688; *see also* OSHA, Process Safety Management, https://www.osha.gov/dsg/psm/index.html (listing as a topic to be considered by OSHA's Small Business Advocacy Review Panel "feedback on any similar provision of EPA's RMP rule and the PSM standard that could be streamlined.")

Amendments.[95] EPA also referenced the 1990 Clean Air Act Amendments' separate timelines for initial OSHA and EPA rulemakings, explaining that nothing in the Clean Air Act restricted timeframes for either agency to amend its rules.[96] Accordingly, while the Amendments were finalized in January of 2017, OSHA's PSM revisions appear to have stalled, at least for the time being.[97]

OSHA is not necessarily easing up on PSM, however. In the last days of the Obama administration, OSHA issued a revised National Emphasis Program (NEP) for inspecting PSM-covered facilities.[98] Under the NEP as originally envisioned, OSHA planned programmed and un-programmed inspections for all OSHA regions.[99] In support of the revised NEP, OSHA

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[95] 82 Fed. Reg. 4594, 4631, 4688. *See also* Environmental Protection Agency, Office of Land and Emergency Management, EPA Activities under EO 13650: Risk Management Program (RMP) Final Rule Questions & Answers (Dec. 2016) at 12, https://www.epa.gov/sites/production/files/2016-12/documents/rmp_final_rule_qs_and_as_12-21-16_final_formatted_342.pdf.

[96] 82 Fed. Reg. 4594, 4631, 4688. *See also* Environmental Protection Agency, Office of Land and Emergency Management, EPA Activities under EO 13650: Risk Management Program (RMP) Final Rule Questions & Answers (Dec. 2016) at 12, https://www.epa.gov/sites/production/files/2016-12/documents/rmp_final_rule_qs_and_as_12-21-16_final_formatted_342.pdf.

[97] OSHA, Process Safety Management, https://www.osha.gov/dsg/psm/index.html

[98] OSHA Directive CPL-03-03-00-021, PSM Covered Chemical Facilities National Emphasis Program (Jan. 17, 2017), https://www.osha.gov/OshDoc/Directive_pdf/CPL_03-00-021.pdf

[99] *Id.* at Abstract 1.

noted that it had issued "69 significant enforcement cases to chemical facility employers" under a prior NEP for PSM-covered chemical facilities and "24 significant enforcement cases to petroleum refinery employers" during the same period.[100] It further noted that refineries had "experienced numerous fatal and/or catastrophic process-related incidents since 2010" and cited specific examples.[101] It is not clear whether and to what extent the Trump administration will adhere to the NEP, but as of December 2017, the PSM NEP was still listed as "active" on OSHA's webpage.[102]

§ 6.Risk Management Program Enforcement

[1] Enforcement Authority

EPA enforces the Risk Management Program regulations through the administrative and judicial actions authorized by the Clean Air Act, Section 113.[103] Section 113(a)(3) authorizes EPA to issue an administrative penalty order or an order requiring compliance with the Risk Management Program requirements, or bring a civil action.[104] Section 113 also allows EPA to request that the Attorney General commence a criminal action for knowing violations of the Risk Management Program regulations,[105] or for (among other things) knowingly making false

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[100] *Id.* at 5.

[101] *Id.*

[102] OSHA's Active National & Special Emphasis Program Index, https://www.osha.gov/dep/neps/nep-programs.html.

[103] 42 U.S.C. § 7413.

[104] *Id.* § 7413(a)(3).

[105] *Id.*

material statements or omitting material facts from records, reports, plans or other documents (such as a RMPs or other required documentation).[106]

[2] Recent Enforcement: 2014-2017

Recent enforcement of the Risk Management Program regulations often occurs in the context of multi-media enforcement; that is, EPA frequently alleges Risk Management Program violations in addition to violations of other environmental statutes. In addition, while Risk Management Program-related allegations do result in settlements in the millions (or even tens or hundreds of millions) of dollars, more often, they result in settlements in the tens or hundreds of *thousands* of dollars. Consistent with the purpose of the Risk Management Program regulations (and of enforcement in general), they frequently contain affirmative requirements tailored to remedying alleged violations or requirements that money be paid to supplemental environmental projects, including for the enhancement of emergency response capabilities in the event of a future release. The authors note, however, that the United States Department of Justice issued guidance in the summer of 2017 stating that it will "no longer engage in this practice" of entering settlement agreements that include "payments to various non-governmental, third-party organizations as a condition of settlement with the United States [where the] third-party organizations were neither victims nor parties to the lawsuits."[107] If the Department of Justice holds to this new position, then regulated entities likely would have fewer opportunities to offset or otherwise reduce federal penalties or other exposure by agreeing to supplemental environmental projects.

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[106] *Id.* § 7413(c).

[107] Dep't of Justice, Memorandum, "Prohibition on Settlement Payments to Third Parties" (June 5, 2017), https://www.justice.gov/opa/press-release/file/971826/download.

Turning to recent enforcement examples, in September 2017, StarKist Co. and StarKist Samoa Co. (collectively, StarKist) entered into a Consent Decree resolving alleged violations of the Clean Water Act, EPCRA, RCRA, and the Risk Management Program regulations.[108] EPA alleged that StarKist violated the GDC by failing to ensure proper operation and maintenance of its ammonia, butane, and chlorine systems.[109] The total penalty paid by StarKist to settle the alleged violations was $6,300,000.[110] StarKist agreed to numerous ongoing requirements, including (but not limited to) upgrading its ammonia refrigeration system, modifying its pressure relief valve piping designs, implementing safer designs for its chlorine system, and adding community notification requirements to its emergency action response plans.[111] StarKist also agreed—notwithstanding the Department of Justice's new third-party payment prohibition

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[108] StarKist Clean Water Act, Clean Air Act, Resource Conservation and Recovery and Emergency Planning and Community Right to Know Act Settlement, https://www.epa.gov/enforcement/starkist-clean-water-act-clean-air-act-resource-conservation-and-recovery-and-emergency; *United States v. StarKist Co. and StarKist Samoa Co.*, Civil No. 2:17-cv-01190-DXC (W.D. Penn. 2017).

[109] StarKist Clean Water Act, Clean Air Act, Resource Conservation and Recovery and Emergency Planning and Community Right to Know Act Settlement, https://www.epa.gov/enforcement/starkist-clean-water-act-clean-air-act-resource-conservation-and-recovery-and-emergency.

[110] *United States v. StarKist Co. and StarKist Samoa Co.*, Civil No. 2:17-cv-01190-DXC (W.D. Penn. 2017) at 5.

[111] *Id.* at 7-20.

policy—to implement an $88,000 supplemental environmental project to purchase emergency response equipment for a local fire department.[112]

Harcros Chemicals, Inc. (Harcros) also paid a significant civil penalty ($950,000) to settle alleged violations of the Risk Management Program regulations in 2017.[113] The Harcros Consent Decree resulted from a series of EPA "pilot" audits at a representative sample of Harcros facilities.[114] Through the audits, EPA discovered alleged non-compliance with Risk Management Program "requirements to identify hazards 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."[115] In addition to the payment of civil penalties, the Harcros Consent Decree required performance audits and the completion of a supplemental environmental project that installed foam fire suppression systems at eight Harcros facilities, at a cost of approximately $2.5 million.[116]

The year 2017 also had its share of "smaller" Risk Management Program settlements. North Pacific Seafoods (a cannery in Seattle) paid $45,743 and committed to spend $175,000 on a supplemental environmental project (installation of a solar power system and LED lighting

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[112] *Id.* at 18.

[113] Harcros Chemicals, Inc. Clean Air Act Settlement (July 31, 2017), https://www.epa.gov/enforcement/harcros-chemicals-inc-clean-air-act-settlement; *United States v. Harcros Chems., Inc.*, Civil No. 2:17-cv-2432 (D. Kan. 2017) at 10.

[114] Harcros Chemicals, Inc. Clean Air Act Settlement (July 31, 2017)_, https://www.epa.gov/enforcement/harcros-chemicals-inc-clean-air-act-settlement.

[115] *Id.*

[116] *Id.*; *United States v. Harcros Chems., Inc.*, Civil No. 2:17-cv-2432 (D. Kan. 2017) at 14-17.

upgrades) to settle allegations that it failed to develop and implement an RMP with respect to its anhydrous ammonia processes.[117] Pitman Farms, Inc. (Pitman) settled alleged Risk Management Program violations following three ammonia releases at a poultry processing facility in California by paying $242,980 in civil penalties and agreeing to perform two supplemental environmental projects—the purchase of emergency response equipment for the local hazmat response team and fire department—valued at approximately $200,000.[118] The Pitman facility also was required to install centralized safety controls, and at the time of settlement, already had installed a new ammonia refrigeration system and filed a revised RMP.[119] Two facilities in Massachusetts, owned by Performance Food Group, Inc. and Solutia Inc., settled Risk Management Program and EPCRA claims related to anhydrous ammonia and vinyl acetate for civil penalties of $184,717 and $15,222 (plus a supplemental project worth approximately $59,779), respectively.[120]

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[117] North Pacific Seafoods to reduce air pollution from Maknek facility in settlement with EPA over failure to plan for risks from hazardous chemicals (Oct. 18, 2017), https://www.epa.gov/newsreleases/north-pacific-seafoods-reduce-air-pollution-naknek-facility-settlement-epa-over-failure.

[118] U.S. EPA commits Sanger, Calif., poultry processor to protect workers, local community from risk of chemical release (Feb. 6, 2017), https://www.epa.gov/newsreleases/us-epa-commits-sanger-calif-poultry-processor-protect-workers-local-community-risk.

[119] *Id.*

[120] Two Springfield, Mass. Facilities Agree to Improve Handling and Reporting of Hazardous Chemicals (May 5, 2017), https://www.epa.gov/newsreleases/two-springfield-mass-facilities-agree-improve-handling-and-reporting-hazardous.

The type of settlements reached by EPA with facilities in 2017 was consistent with settlements in the years 2014-2016. For example, in April of 2016, EPA filed a complaint against Tesoro Refining and Marketing Company (Tesoro) alleging violations at its Anacortes, Washington refinery, including for allegedly failing to: include required written process safety information, address PHA findings, appropriately document safety processes and written operating procedures, and evaluate all Risk Management Program covered processes.[121] EPA proposed a $718,361 penalty.[122] Tesoro and EPA ultimately entered into a Consent Agreement resolving the allegations in the Complaint for a civil penalty of $325,000.[123]

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[121] EPA files complaint against Tesoro refinery in Anacortes, Washington, alleging chemical accident prevention violations (Apr. 20, 2016), https://www.epa.gov/newsreleases/epa-files-complaint-against-tesoro-refinery-anacortes-washington-alleging-chemical; *In the Matter of Tesoro Ref. and Mktg. Co., LLC*, Docket No. CAA-10-2016-0044, Complaint ¶¶3.22-3.75, https://yosemite.epa.gov/OA/rhc/EPAAdmin.nsf/Filings/D38218746C574CF685257FA2001BBF66/$File/CAA-10-2016-0044-COMPLAINT.pdf.

[122] EPA files complaint against Tesoro refinery in Anacortes, Washington, alleging chemical accident prevention violations (Apr. 20, 2016), https://www.epa.gov/newsreleases/epa-files-complaint-against-tesoro-refinery-anacortes-washington-alleging-chemical.

[123] Letter from Robert Hartman, Assistant Regional Counsel, EPA Region 10, to Honorable Barbara A. Gunning, Administrative Law Judge, EPA, In the Matter of: Tesoro Refining and Marketing Company LLC, Docket No. CAA-10-2016-0044, https://yosemite.epa.gov/OA/RHC/EPAAdmin.nsf/Filings/5FC32C3B0DFF61A08525802D001BC9B8/$File/CAA-10-2016-0044%20FINAL%20ADR_OCR.pdf.

In October of 2016, two New York companies, Finger Lakes LPG Storage LLC (the owner/operator of a facility that received and stored liquefied petroleum gas for wholesale customers) (Finger Lakes) and Twin Lakes Chemical Inc. (a chemical manufacturing company that was using and storing phosgene) (Twin Lakes) settled alleged Risk Management Program violations for $154,000 and $40,000, respectively.[124] Finger Lakes allegedly failed to comply with hazard identification and equipment safety requirements (such as accurate piping and instrumentation diagrams).[125] In addition to the civil penalty, Finger Lakes committed to spend approximately $158,000 to purchase equipment and vehicles for three local fire departments.[126] Twin Lakes allegedly "failed to adequately support, secure, and label phosgene equipment and pipes" and failed to "comply with hazard identification and equipment safety requirements."[127] Twin Lakes committed to spend approximately $100,000 to purchase hazardous material equipment for a local fire department.[128]

In 2015, Bayer CropScience LP (Bayer) entered into a Consent Decree that required it to pay $975,000 in civil penalties and spend $4.23 million to enhance local emergency preparedness and response, and $452,000 to implement measures to improve safety at chemical

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[124] New York Companies Fined for Clean Air Act Violations (Oct. 11, 2016), https://www.epa.gov/newsreleases/new-york-companies-fined-clean-air-act-violations.

[125] *Id.*

[126] *Id.*

[127] *Id.*

[128] *Id.*

storage facilities.[129] The Consent Decree followed a 2008 explosion at Bayer's West Virginia facility that killed two people.[130] EPA alleged that Bayer did not comply with its RMP, including by failing to engage a safety interlock system properly on a digital control system and training employees to understand the system, which ultimately resulted in the chemical reaction that caused the explosion.[131]

Also in 2015, Western Operating Company paid $122,900 to resolve alleged Risk Management Program and EPCRA violations relating to its gas plant in Morgan County,

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[129] Bayer CropScience to Enhance Safeguards at Chemical Facilities in Four States to Settle Violations at W. Va. Plant (Sept. 21, 2015), https://www.epa.gov/newsreleases/bayer-cropscience-enhance-safeguards-chemical-facilities-four-states-settle-0; Notice of Lodging of Proposed Consent Decree Under the Clean Air Act, 80 Fed. Reg. 57873 (Sept. 25, 2015). The Bayer CropScience Consent Decree was not finalized until 2016, and has been subsequently modified. *See* Notice of Lodging of Proposed Second Modification to Consent Decree Under the Clean Air Act 82 Fed. Reg. 42838 (Sept. 12, 2017) (modifying the Consent Decree to replace a supplemental environmental project that required expansion of a wastewater sump with another project to purchase emergency response equipment, decreasing the total cost of the supplemental environmental projects to $3.05 million).

[130] Bayer CropScience to Enhance Safeguards at Chemical Facilities in Four States to Settle Violations at W. Va. Plant (Sept. 21, 2015), https://www.epa.gov/newsreleases/bayer-cropscience-enhance-safeguards-chemical-facilities-four-states-settle-0.

[131] *Id.*

Colorado.[132] EPA alleged that the Western Operating Company facility did not adequately implement the Risk Management Program requirements for flammable substances at the facility, including by failing to: timely resolve equipment maintenance problems; provide employees with accurate written operating procedures; implement maintenance procedures on piping; and properly test gas-detection equipment.[133]

In 2014, Suncor Energy[134] similarly paid $230,400 to resolve alleged Risk Management Program and EPCRA violations relating to its Commerce City Refinery, including the allegation that it had not adequately implemented Risk Management Program requirements related to flammable substances and hydrogen sulfide by compiling incomplete process safety information and failing to follow procedures for maintaining process equipment.[135] Also in 2014, Kemps Dairy (a dairy processing facility) (Kemps) and GlaxoSmithKline Vaccines (a manufacturing

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[132] Western Operating Company agrees to resolve alleged risk management planning and chemical reporting violations at Wiggins Gas Plan facility (Colo.) (Mar. 5, 2015), https://archive.epa.gov/epa/newsreleases/western-operating-company-agrees-resolve-alleged-risk-management-planning-and-chemical.html.

[133] *Id.*

[134] We note that, as identified on the title page, two of the authors are employees of Suncor entities, and three of the authors participated in the resolution of the Risk Management Program enforcement described in the text.

[135] Commerce City (Colo.) refinery agrees to resolve alleged risk management planning and chemical reporting violations (Sept. 29, 2014), https://archive.epa.gov/epapages/newsroom_archive/newsreleases/b76bc2968166abcd85257d620062fbdb.html.

facility with on-site quantities of chloroform) (GlaxoSmithKline) paid $57,000 and $172,900, respectively, to resolve violations associated with their alleged failure to submit RMPs.[136] Kemps and GlaxoSmithKline both had submitted RMPs by the time of the settlements.[137] Numerous other Risk Management Program settlements were negotiated in 2014[138], 2015[139], and 2016[140].

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[136] Kemps, LLC agrees to resolve risk management violation at Fargo, North Dakota dairy processing facility (Sept. 15, 2014), https://archive.epa.gov/epapages/newsroom_archive/newsreleases/9002db51aea0fed785257d540075f3a3.html; GlaxoSmithKline Vaccines agrees to resolve risk management violation at Hamilton, Montana facility (Sept. 15, 2014), https://archive.epa.gov/epapages/newsroom_archive/newsreleases/f718fdf86212909085257d5400761b8d.html.

[137] *Id.*

[138] *See* EPA settles with Jerome Cheese for chemical risk management violations at Jerome, Idaho plant (Oct. 17, 2014), https://archive.epa.gov/epapages/newsroom_archive/newsreleases/004dda6ce131de3d85257d74005894f3.html; U.S. EPA requires Rancho LPG to comply with safety measures for community protection (July 24, 2014) https://archive.epa.gov/epapages/newsroom_archive/newsreleases/138e8d63e8b80f8385257d1f006f5df9.html; EPA settles with Alaska seafood processor UniSea for chemical risk management planning violations (Sept. 24, 2014), https://archive.epa.gov/epapages/newsroom_archive/newsreleases/a196516c557d7c9d85257d5d0072e5cd.html; Chemical Company Takes Steps to Make Fall River, Mass. Community Safety

Following EPA Enforcement (Oct. 20, 2014), https://archive.epa.gov/epapages/newsroom_archive/newsreleases/c0d88a96d1225fb785257d770055ada0.html; US Settles with DuPont to Resolve Clean Air Act Violations and Protect Communities, Kanawha River Near West Virginia Facility (Aug. 27, 2014), https://archive.epa.gov/epapages/newsroom_archive/newsreleases/f7e930442eed166f85257d41006ae467.html.

[139] EPA Inspections Reveal Clean Air Act Violations at Wilbur-Ellis Company Facilities in White Cloud, Troy and Silver Lake, Kan. (July 16, 2015), https://www.epa.gov/newsreleases/epa-inspections-reveal-clean-air-act-violations-wilbur-ellis-company-facilities-white; U.S. EPA cites two Guam bulk fuel companies for chemical safety violations (Oct. 6, 2015), https://www.epa.gov/newsreleases/us-epa-cites-two-guam-bulk-fuel-companies-chemical-safety-violations; Bayer CropScience to Enhance Safeguards at Chemical Facilities in Four States to Settle Violations at W. Va. Plant (Sept. 21, 2015), https://www.epa.gov/newsreleases/bayer-cropscience-enhance-safeguards-chemical-facilities-four-states-settle-0.

[140] City of Fort Dodge, Iowa, to Pay Penalty and Perform Project to Settle Water Plant Risk Management Program Violations (May 24, 2016), https://www.epa.gov/newsreleases/city-fort-dodge-iowa-pay-penalty-and-perform-project-settle-water-plant-risk-management; EPA Settlement with Owner of Fertilizer Plant in Culbertson, Neb. to Resolve Risk Management Program Issues (June 24, 2016), https://www.epa.gov/newsreleases/epa-settlement-owner-fertilizer-plant-culbertson-neb-resolve-risk-management-program; EPA Settles with Oregon Ice Cream Company Over Chemical Safety Violations (Mar. 29, 2016), https://www.epa.gov/newsreleases/epa-settles-oregon-ice-cream-company-over-chemical-safety-

[3] Future Enforcement and Conclusion

Despite the new administration, 2017 has still seen its fair share of settlements related to alleged Risk Management Program violations. This is not surprising, given that the incidents or inspections that resulted in agreements in 2017 occurred in years prior, and negotiations regarding those agreements likely were well underway by early 2017.

Yet, as noted above, EPA's website still lists "Reducing Risks of Accidental Releases at Industrial and Chemical Facilities (Fiscal Years 2017-2019)" as a National Enforcement Initiative,[141] and EPA staff confirms that the Initiative is still on ongoing priority. OSHA also continues to maintain its PSM NEP.[142] Facilities therefore should continue to expect focus on Risk Management Program and PSM in the coming years, although the intensity of that focus—including the frequency of inspections—may wane. EPA staff has indicated a willingness to

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violations; EPA Settlement with Chesapeake Appalachia Improves Safety, Protects Chapmanville and Kermit, W.Va. Residents (Mar. 1, 2016), https://www.epa.gov/newsreleases/epa-settlement-chesapeake-appalachia-improves-safety-protects-chapmanville-and-kermit; Clean Air Act Settlement Improves Chemical Safety at Bloomfield, Conn. Meat Processor (July 7, 2016), https://www.epa.gov/newsreleases/clean-air-act-settlement-improves-chemical-safety-bloomfield-conn-meat-processor.

[141] National Enforcement Initiative: Reducing Risks of Accidental Releases at Industrial and Chemical Facilities (Fiscal Years 2017-2019), https://www.epa.gov/enforcement/national-enforcement-initiative-reducing-risks-accidental-releases-industrial-and.

[142] *See* OSHA Directive CPL-03-03-00-021, PSM Covered Chemical Facilities National Emphasis Program (Jan. 17, 2017), https://www.osha.gov/OshDoc/Directive_pdf/CPL_03-00-021.pdf.

engage with industry in advance of an audit or government enforcement action, leaving facilities an opening to ask questions and seek input as they review their own processes and procedures.

Moreover, despite the ongoing debate over whether the Amendments will ever become effective, facilities can take several no- or low-regret actions to begin preparing for the Amendments. As a result, facilities would be wise to begin learning about and preparing for the Amendments while they are still several years out, and while EPA remains open to assist them in doing so.

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Clean Air RMP Issues and Enforcement

February 2018

Jacy Rock & Brian Nelson

SUNCOR

Agenda

- **Introductions**
- **What is the Risk Management Program?**
- **Amendments**
- **What Next?**
  - Impact/recommendations
  - Enforcement

1

Risk Management Program

- Purpose= prevent accidents
- EPA: Risk Management Program
- OSHA: Process Safety Management

2

Risk Management Program

- **Clean Air Act § 112(r), 40 C.F.R. Part 68**

- **Requirements Depend on Program Level**
  - **Program 1:** TQ + no releases 5 years + distance + ERP coordination
  - **Program 2:** TQ + not Program 1 or 3
  - **Program 3:** TQ + not Program 1 + OSHA PSM or NAICS codes

3

Risk Management Program

- **Main Requirements:**
  - Risk Management Plan (RMP)
  - Management Systems
  - Hazard Assessments
  - Prevention Requirements
  - Emergency Response Program
  - General Duty Clause

4

Risk Management Program

- **Risk Management Plan**
  - Off site consequence analysis
  - Five-year accident history
  - Prevention program information
  - Emergency response plan information
- **Management Systems**
  - Oversee RMP elements
- **Hazard Assessments**
  - Every 5 years

5

Risk Management Program

- **Prevention Requirements**
  - PSI, PHA, audits, procedures, training, MOCS, incident investigation
- **Emergency Response Program**
  - Procedures, including informing public and local responders
- **General Duty Clause**
  - "general duty . . . to identify . . . design . . . and maintain . . . as . . . necessary to prevent releases, and to minimize the consequences. . . ."

Amendments

- Current Effective Date: February 19, 2019
- Major Amendments:
  - Third Party Audits
  - Root Cause Analysis
  - STAA/IST
  - Emergency Preparedness & Response

7

Amendments

- **Third Party Audits**
- **Required:**
  - **(1) RMP reportable incident**
    - Death, injuries, sig. property damage, evacuations, off - site sheltering in place, prop./env. damage
  - **(2) Implementing agency determines**
- **Competence + Independence**

8

Amendments

- Root Cause Analysis
- Incident that could have reasonably resulted in a catastrophic release: “Near-Miss”
- “Root Cause”: fundamental underlying system-related reason
- “Recognized method”

9

Amendments

- Safer Technology and Alternatives Analysis (STAA)
- Inherent (ISD, IST):
  - Minimize, substitute, moderate, simplify
- Passive
- Active
- Procedural

10

Amendments

- **Emergency Preparedness**
- **Coordination**
  - Notification annually
  - Field exercises= 10 years
  - Tabletops= 3 years
- **"Good faith" efforts**
- **Burden on facilities, not LEPCs**

11

Amendments

- **Emergency Preparedness**
- **Information Availability**
  - Sharing with agencies
  - Response to public requests within 45 days
  - Notification of availability of information
  - Public meetings with 90 days of incident

12

What Next?
Impact/Recommendations

- Take advantage of the time
- Talk to your auditors!
  - In-house vs. outside
  - How do they plan to meet requirements?
  - Who can audit for you?

13

What Next?
Impact/Recommendations

- **Review your processes**
  - Root-cause analysis, STAA, IST
  - "Recognized methods"?
  - "Practicability" documentation

14

What Next?
Impact/Recommendations

- **Make new (or better) friends**
  - LEPCs, fire departments
- **Documentation of "good faith"**
- **Review your budget**

15

What Next?
Impact/Recommendations

- **Documentation Review Generally**
  - How does your documentation look to outsiders?

What Next?
Impact/Recommendations

- **Process to respond to public requests**
- **Engage other functions**
  - Comms/stakeholder relations
  - Legal

17

What Next?
Impact/Recommendations

- Lawyers: review EPA privilege language
- Do you review audits? If so, how?

18

What Next?

- **Will Amendments Really Take Effect?**
  - Probably.
- **What about OSHA?**
  - Revisions proposed, stalled
  - BUT: National Emphasis Program

19

What Next? Enforcement

- **Enforcement Authority: Clean Air Act § 113**
  - Orders, civil, criminal actions
  - False statements/omissions

20

What Next? Recent Enforcement

- **A few big cases**
  - StarKist ($6.3 million)
  - Harcos ($950,000)
  - Bayer CropScience ($975,000/$4.23 million)
- **Lots of "smaller" ones**
- **Resolve violations of multiple statutes** (CWA, EPCRA, RCRA)
- **Affirmative requirements** (but see 2017 DOJ guidance)

21

What Next? Recent Enforcement

- **EPA National Enforcement Initiative**
  - "Reducing Risks of Accidental Releases at Industrial and Chemical Facilities (2017-2019)"
  - Ongoing priority
- **EPA encouraging engagement**

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Conclusion

- RMP is important
- Amendments will require work, but there is time!
- Enforcement will continue

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Questions

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Cooperative Federalism Under the Clean Air Act: New Horizons in State Regulatory and Enforcement Primacy Under a Trump EPA

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Paper 13

Cooperative Federalism Under the Clean Air Act: New Horizons in State Regulatory and Enforcement Primacy Under a Trump EPA

U.S. Environmental Protection Agency (EPA) Administrator, Scott Pruitt, published a memorandum on October 16, 2017 addressing 'sue and settle' tactics stating the Agency's commitment to embracing the principles of cooperative federalism.[1] Citing the Clean Air Act as an example environmental statute that empowers states to serve as stewards of their environments, Pruitt emphasizes the importance of EPA "working cooperatively with states to encourage regulations instead of compelling them and to respect the separation of powers."[2] The Agency's new commitment to empowering states through cooperative federalism came as no surprise to EPA watchers.

The presidential election of 2016 produced a new administration in Washington and expectations that states would play a stronger role in enforcing environmental standards. In June 2017, state environmental regulators announced their vision for recasting state roles in environmental protection by releasing their plan for *Cooperative Federalism 2.0*.[3] EPA followed suit by identifying cooperative federalism as a primary goal in its Draft Fiscal Year 2018-2022 EPA Strategic Plan.[4] Pruitt's early actions as Administrator and EPA's strategic planning make clear the Agency is pursuing a path of shifting the responsibility of environmental enforcement to state and tribal regulators. Although Administrator Pruitt stated this shift will not result in giving violators a free pass, some have noticed a significant reduction in enforcement actions

[1] Memorandum from E. Scott Pruitt, U.S. EPA Administrator to Assistant Administrators, Regional Administrators, and Office of General Counsel 1–6 (Oct. 16, 2017).
[2] *Id.* at 5.
[3] Environmental Council of the States (ECOS), *Cooperative Federalism 2.0: Achieving and Maintaining a Clean Environment and Protecting Public Health* (June 2017), https://www.ecos.org/wp-content/uploads/2017/06/ECOS-Cooperative-Federalism-2.0-June-17-FINAL.pdf.
[4] U.S. ENVTL. PROT. AGENCY, DRAFT FY 2018-2022 ENVIRONMENTAL PROTECTION AGENCY STRATEGIC PLAN (Oct. 5, 2017), https://www.gpo.gov/fdsys/pkg/FR-2017-10-05/pdf/2017-21245.pdf.

The views expressed in this paper are solely those of the author (or authors).
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during the early days of the Trump Administration compared to those filed in the same period during the previous two administrations.[5]

EPA's most recent shift also comes when scholars and legal commentators continue to debate the extent to which the cooperative federalism pendulum has swung and what it means for environmental enforcement going forward. While some rely on the Rehnquist Court's "new federalism" decisions that narrowed federal regulatory power to explain how cooperative federalism is alive and well, others argue that federal environmental laws unquestionably makes the federal government, acting through the powers delegated to the EPA, the primary authority for setting pollution controls.[6] Because federalism issues derive from the Constitution's recognition that states are distinct sovereign entities from the federal government,[7] institutional tension almost guarantees there will be no end to the cooperative federalism debate.

Environmental law provides illustrative examples of the federalism dynamic between states and the federal government in enforcing environmental protections. But the infusion of cooperative federalism into environmental law is not a novel concept. In place for a number of decades, federal and state regulators have consistently shared (and often competed) for authority over the regulatory landscape of natural resources. A unique consideration under the Pruitt-led EPA; however, is whether or not the regulatory rollback at the agency is genuinely returning the balance of power in cooperative federalism back to state regulators or whether it's a deliberate effort to starve resources for environmental enforcement.[8]

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[5] Eric Lipton and Danielle Ivory, *Under Trump, E.P.A. Has Slowed Actions Against Polluters, and Put Limits on Enforcement Officers*, N.Y. TIMES, Dec. 10, 2017, at A1.
[6] *See* Robert L. Glickman, *From Cooperative to Inoperative Federalism: The Perverse Mutation of Environmental Law and Policy*, 41 WAKE FOREST L. REV. 719, 740–756 (2006).
[7] *Id.* at 722; *see also* Laurence H. Tribe, American Constitutional Law 119 (3d ed. 2000).
[8] *See* Brady Dennis & Juliet Eilperin, *How Scott Pruitt turned the EPA into one of Trump's most powerful tools*, WASH. POST (Dec. 31, 2017), https://www.washingtonpost.com/national/health-science/under-scott-pruitt-a-year-of-tumult-and-transformation-at-epa/2017/12/26/f93d1262-e017-11e7-8679-a9728984779c_story.html?utm_term=.75409ade126b.

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This paper will first cover the basic constitutional elements that underpin cooperative federalism; then it will discuss how the relationship shapes environmental law. Specific attention is provided to cooperative federalism and the Clean Air Act and will outline some of the major enforcement controversies that have recently cropped up between EPA and states. Finally, the paper will discuss North Dakota's experience with cooperative federalism and offer an assessment of what state regulators and industry should expect on the horizon from the Pruitt Administration.

I. Cooperative Federalism in Brief

Federalism is based on the Framers' belief that freedom is enhanced by the creation of two governments—both a federal government and state governments.[9] Cooperative federalism is the "[d]istribution of power between the federal government and the states whereby each recognizes the powers of the other while jointly engaging in certain governmental functions."[10] As a form of federalism, the cooperative version recognizes that federal and state responsibilities overlap and interact.[11] Cooperative federalism is also distinct from the concept of dual federalism which is federal or state government acting independently with no overlap of authority.[12] In practice, cooperative federalism is typically a scenario where the federal government sets a requirement for enforcement or implementation; then state governments, with some flexibility, are provided the opportunity to implement the federal standard.

However, with cooperative federalism, federal courts are often faced with the task of defining, and at times limiting, the scope of federal power as it relates to state action. Justice Kennedy, writing on managing this balance notes:

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[9] Henry J. Friendly, *Federalism: A Forward*, 86 YALE L. R. 1019, 1019–20 (1977).
[10] Black's Law Dictionary (10th ed. 2014).
[11] Adam Babich, *The Supremacy Clause, Cooperative Federalism, and the Full Federal Regulatory Purpose*, 64 ADMIN. L. REV. 1, 22–23 (2012).
[12] *Id.*

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> Of the various structural elements in the Constitution, separation of powers, checks and balances, judicial review, and federalism, only concerning [federalism] does there seem to be much uncertainty respecting the existence, and the content, of standards that allow the Judiciary to play a significant role in maintaining the design contemplated by the Framers....Our role in preserving the federal balance seems more tenuous.[13]

Despite this struggle, federalism is designed to assign political responsibility, and as a result courts are often left with the last word, particularly when the roles of the two governments are obscured by the political process.[14]

Federalism questions are historically viewed by the Supreme Court in two ways.[15] First, the Court has considered whether an Act of Congress is authorized as a legislative power delegated by Article I of the Constitution.[16] In other cases, the Court will determine whether an Act of Congress encroached on a state's sovereignty as reserved by the Tenth Amendment.[17] Regardless of the approach, the Court will typically rely on three sources of constitutional power when distinguishing the limits of state and federal authority.[18]

Broad construction is given to Congress' Commerce Clause powers and is a common basis for Courts to uphold legislative acts which regulate activities typically managed by states. The Commerce Clause provides Congress with the authority to regulate interstate commerce including intrastate activities which affect interstate commerce.[19] However, the Supreme Court has notably outlined a limit as to what Congress may legislate under the Commerce Clause. In 1995, the Court struck down a federal gun statute which neither regulated a commercial activity

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[13] *United States v. Lopez*, 514 U.S. 549, 575 (1995).
[14] *Lopez*, 514 at 577–78; *see also FTC v. Ticor Title Ins. Co.*, 504 U.S. 621, 636 (1992).
[15] *New York v. United States*, 505 U.S. 144, 155 (1992).
[16] *Id.; see also Perez v. United States*, 402 U.S. 146 (1971).
[17] *New York* at 155–56; *see also Garcia v. San Antonio Metropolitan Transit Authority*, 469 U.S. 528 (1985).
[18] *See United States v. Darby*, 312 U.S. 100 (1941) (Justice Stone notably concluding that the Tenth Amendment "states but a truism that all is retained which has not been surrendered. There is nothing in the history of its adoption to suggest that it was more than declaratory of the relationship between the national and state governments as it had been established by the Constitution before the amendment.").
[19] U.S. CONT. art. I, § 8, c. 1; *see also Hodel v. Virginia Surface Mining & Reclamation Ass'n.*, 452 U.S. 264, 281 (1981).

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nor contained a requirement that possession of the gun was connected to interstate commerce.[20] Despite this limit, the Commerce Clause remains the most common authority Congress relies on when enacting major federal environmental laws.

The second constitutional authority Congress may use is its power of inducement under the Spending Clause. Because the Constitution authorizes Congress "to pay the Debts and provide for the…general Welfare of the United States" it may "fix the terms on which [Congress] shall disburse federal money to States."[21] While Congress may exercise its authority to condition the disbursement of federal highway funds based on whether a state has adopted a minimum drinking age, Congress cannot use its spending power in an overtly coercive manner.[22]

Finally, the Supremacy Clause gives the federal government "a decided advantage in th[e] delicate balance" the Constitution strikes between state and federal power.[23] Once Congress expressly declares its intent to preempt state law, the Court will sustain preemption as long as the action is within otherwise applicable constitutional limits.[24]

These constitutional authorities make up the carrots and sticks of cooperative federalism and define how the federal government can encourage states to enforce its federal programs. Although the Supreme Court has placed some limits on Congress' authority to interfere with state authority and act coercively in creating federal mandates, there are ample examples of how cooperative federalism pervades our daily lives.

a. Cooperative Federalism Pervades Modern American Government

The New Deal "put the concept of cooperative federalism on the map" when it created depression-era federal programs relying on states to distribute federal benefits. Examples

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[20] *See Lopez,* 514 U.S. at 551.
[21] U.S. CONST. art. I, § 8, cl. 1; *see Pennhurst State Sch. and Hosp. v. Halderman*, 451 U.S. 1, 17 (1981).
[22] *South Dakota v. Dole*, 483 U.S. 203 (1987).
[23] U.S. CONST. art. VI, cl. 2; *see also New York*, 505 U.S. at 159.
[24] *Hillsborough County, Fla. v. Automated Medical Lab., Inc.*, 471 U.S. 707, 713 (1985).

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include unemployment insurance and assistance to families under the Social Security Act of 1935.[25] The Aid to Families with Dependent Children Program (AFDC) is an early experiment in cooperative federalism—the program was financed by the federal government but administered by states contingent upon the approval of the U.S. Secretary of Health, Education, and Welfare.[26] The Supreme Court acknowledges a number of programs have traits embracing cooperative federalism—including initiatives involving education for children with disabilities,[27] siting telecommunication facilities,[28] offering federal highway funding,[29]and providing financial security for the elderly.[30] A more recent example includes the relationship Congress created under the Patient Protection and Affordable Care Act (ACA). With the ACA, states are offered control over the health exchange the Act creates for each state; however, this control comes under the condition states comply with federal quality, access, and governance rules.[31]

States participate in federal programs voluntarily but the federal government decides exactly how states may volunteer.[32] Since the 1960s, the federal government has taken a decisively coercive turn as Congress and federal agencies increased conditions attached to federal aid, adopted state mandates, and preempted state powers.[33] Eight tools in particular are attributed to the increasingly coercive nature of the federal government: (1) grants-in-aid; (2) deficit spending; (3) minimum national standards; (4) waivers of federal law; (5) compliance-deadline extensions; (6) federal forbearance; (7) court orders and consent decrees; and (8) statutory and

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[25] Philip J. Weiser, *Towards a Constitutional Architecture for Cooperative Federalism*, 79 N.C.L. REV. 663, 669 (2001).
[26] *King v. Smith*, 392 U.S. 309, 316 (1968).
[27] *Schaffer ex rel.Schaffer v. Weast,* 546 U.S. 49 (2005).
[28] *City of Rancho Palos Verdes v. Abrams*, 544 U.S. 113, 118 (2005) (Breyer, J., concurring).
[29] *South Dakota*, 483 U.S. at 210.
[30] *Chapman v. Houston Welfare Rights Org.*, 441 U.S. 600, 645 (1979) (Powell, J., concurring).
[31] Bridget A. Fahey, *Consent Procedures and American Federalism*, 128 HARV. L. REV. 1561, 1564 (2015).
[32] *Id.*at 1565; *see also* Richard H. Thaler & Cass R. Sunstein, *Libertarian Paternalism*, 93 AM. ECON. REV. 175 (2003).
[33] John Kincaid, *The Eclipse of Dual Federalism by One-Way Cooperative Federalism*, 49 ARIZ. ST. L.J. 1061, 1068 (2017).

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regulatory penalties.[34] For this reason, cooperative federalism is sometimes considered a 'one-way street' for states, criticized for undermining political accountability and blamed for eroding state self-governance.[35]

II. Cooperative Federalism and Environmental Law

Prior to the 1960s, states were the dominate entities protecting human health and the environment under their general police powers. Congress, up until the mid-twentieth century, relied almost entirely on the Constitution's Property Clause to protect natural resources on federal land from unauthorized development.[36] In limited instances, federal commerce laws such as the River and Harbors Act of 1899 were used to address pollution.[37] Despite early efforts by state and local governments to address environmental concerns, by the 1960s, a growing consensus determined federal standards were necessary to address gaps in state environmental laws. Regulated entities—including the automobile and coal industry—provided support for early federal clean air laws because of concerns about a growing patchwork of inconsistent state and local air standards.[38] The Motor Vehicle Pollution Control Act of 1965 and the Air Quality Act of 1967, as a result, became two of the first major federal environmental laws on the books.

Fueled by a perception that states did not possess the adequate scientific expertise to create effective environmental standards, federal environmental laws proliferated throughout the 1970s.[39] Advocates of federal environmental standards also argued that states could not effectively regulate the effects of interstate pollution and that in some instances states may

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[34] *Id.* at 1074–79.
[35] *Id.* at 1089; *see also* Michael S. Greve, *Against Cooperative Federalism*, 70 MISS. L.J. 557, 559 (2000).
[36] Glickman, *supra* note 6 at 727–28; *see also* U.S. CONST. art. IV, § 3, cl. 2.
[37] *Id.* at 729.
[38] E. Donald Elliott, *Toward a Theory of Statutory Evolution: The Federalization of Environmental Law*, 1 J.L. ECON. & ORG. 313, 326 (1985).
[39] Glickman, *supra* note 6 at 731–36.

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compete to create the lowest minimum standard to attract new industries.[40] Federal environmental laws at this time, while ranging significantly in detail, developed a basic substantive outline of cooperative federalism.

Acting through authority delegated to the EPA, major environmental statutes of the 1970s created minimum federal standards that preempted state standards but offered states flexibility in meeting federal objectives. States that wish to manage their own pollution control programs develop their own legislative and administrative processes which are submitted to EPA. The Agency then reviews the state's plan and either approves or rejects the effort. Once a state's program is approved, the state regulations and statutory scheme is in effect and state regulators become the primary issuer and enforcer of permits. However, EPA provides oversight for state implementation and to sweeten the deal, the Agency will provide funding to states to assist in implementing EPA-approved programs.

The Clean Water Act (CWA) provides an example of a similar cooperative federalism design and one where a state is prohibited from enforcing a standard less stringent than that created by the federal government. A savings clause in the CWA notes nothing in the Act should be construed to "preclude or deny the right of any State or political subdivision…to adopt or enforce" any standard limiting the discharge of pollution except that states may not adopt or enforce less stringent limits than those found in federal standards. [41] Although states have primary enforcement authority under the CWA, EPA retains the power to step in and enforce provisions if a state fails to act.[42] Despite this intended primacy, the Supreme Court has noted,

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[40] *Id.* at 735–36.
[41] Clean Water Act, 33 U.S.C. § 1370.
[42] *Id.* at § 1319(a)(1).

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"the Federal Government maintains an extraordinary level of involvement" in CWA permitting programs.[43]

Congress provided a comprehensive regime for protecting drinking water systems and underground water sources with the Safe Drinking Water Act (SDWA). The goals of SDWA are similarly achieved through national minimum standards implemented by states.[44] Pursuant to the cooperative federalism system for regulating underground injection, states and Indian tribes can assume primary enforcement responsibility for underground injection control subject to EPA approval and oversight.[45] Although states preserve considerable discretion in implementing SDWA standards, should a state or tribe fail to implement a program, EPA has authority to bring a civil action.[46]

Another environmental statute relying on states to enforce federal standards resulted in a seminal Supreme Court ruling on cooperative federalism. The Surface Mining Control and Reclamation Act of 1977 (SMCRA) created a nationwide program "to protect…the environment from the adverse effects of surface coal mining operations."[47] With SMCRA, states were offered the choice of implementing a state plan for surface mine regulation or accepting federal regulations promulgated by the U.S. Department of Interior for performance standards, permitting, and bonding.[48] A legal challenge was launched by mining advocates alleging SMCRA coerced states into enforcing the Act and thus the law violated the Tenth Amendment.[49] The Court disagreed and held the Tenth Amendment does not limit congressional power to

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[43] *U.S. Dept. of Energy v. Ohio*, 503 U.S. 607, 634 (1992); *see also Gulf Restoration Network v. McCarthy*, 783 F.3d 227, 241 (5th Cir. 2015).
[44] Safe Drinking Water Act, 42 U.S.C. § 300g-1(b)(1)(A).
[45] *Id.* at § 300h-l(b), (c), & (e).
[46] *Id.* at § 300g-2, 300g-3; *see also Mays v. City of Flint Mich.*, 871 F.3d 437, 447 (6th Cir. 2017).
[47] Surface Mining Control and Reclamation Act, 30 U.S.C. § 1202(a).
[48] Donald C. Ewigleben, *Is it Still Possible to Permit a Major New Mining Project in the United States?*, 61 RMMLF 15-1, 15-11 (2015).
[49] *Hodel v. Virginia Surface Mining & Reclamation Ass'n.*, 452 U.S. 264, 265 (1981).

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preempt or displace state regulation of private activities affecting interstate commerce.[50] Recognizing SMCRA establishes "a program of cooperative federalism," the Court determined the Act provides each state with sufficient regulatory flexibility to meet minimum federal standards.[51]

III. Cooperative Federalism and the Clean Air Act

The CAA is considered the first major modern federal pollution control statute that embraces the principles of cooperative federalism.[52] Prior to 1970, much of the federal government's attention to clean air matters involved technical and scientific research that was shared with state enforcement programs.[53] The Clean Air Act Amendments of 1970 empowered the newly created EPA to develop national ambient air quality standards (NAAQS) under Title I to provide guidance so states could develop state implementation plans (SIPs) to achieve the federal limits.[54] Once a SIP is developed, EPA is responsible for approving or augmenting the plan.[55]

With the CAA, states have the responsibility of adopting a state implementation plan (SIP) to achieve federal NAAQS.[56] SIPs must meet the minimum federal standard and EPA determines if the plans are sufficient in meeting a NAAQS within the applicable statutory deadline.[57] If a state fails to meet the standards under a SIP, EPA may develop, implement, and enforce its own federal plan establishing emission limitations within the delinquent state.[58] EPA has

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[50] *Hodel*, 452 U.S. at 265.
[51] *Id.* at 289; *citing Friends of the Earth v. Carey*, 552 F.2d 25, 36–39 (2d Cir. 1977), *cert. denied,* 434 U.S. 902 (1977) (upholding the Clean Air Act, 42 U.S.C. § 7401 *et seq.*).
[52] *See Michigan v. EPA*, 268 F.3d 1075, 1083 (D.C. Cir. 2001).
[53] Michael R. Barr, *Introduction to the Clean Air Act: History, Perspective, and Direction for the Future*, *in* 6 THE CLEAN AIR ACT HANDBOOK (Julie R. Domike & Alec C. Zacaroli eds., 3d ed. 2011).
[54] Clean Air Act Amendments of 1970, Pub. L. No. 91-604, § 109–110, 81 Stat. 486, 490 (1970).
[55] Clean Air Act, 42 U.S.C. § 7410.
[56] *Id.* at §§ 7407(a) & 7410(a).
[57] 42 U.S.C. § 7419(k).
[58] *Id.* at § 7410(c).

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promulgated NAAQS for six criteria pollutants: (1) sulfur dioxide; (2) particulate matter; (3) nitrogen oxide; (4) carbon monoxide; (5) ozone; and (6) lead.[59]

For each pollutant, EPA sets both a "primary NAAQS" to protect public health and a "secondary NAAQS" to protect public welfare. SIPs must "include enforceable emission limitations and other control measures, means, or techniques...as well as schedules and timetables for compliance, as may be necessary or appropriate to meet" the applicable NAAQS.[60] State plans must also provide for the establishment and operation of "appropriate devices, methods, systems, and procedures necessary to monitor, compile, and analyze data on ambient air quality," and include an enforcement program.[61] Under the cooperative federalism model, EPA and states are expected to operate as partners. However, in practice, EPA and states do not always see eye-to-eye on enforcement and regulatory actions.

a. Cooperative Federalism Controversies

A number of recent disputes between states and EPA over CAA enforcement suggest a trend where uniform national standards displace cooperative federalism. During the Obama Administration, there was an effort by EPA to expand the regulatory reach of CAA's national standards. Some of these disputes played out in federal court while others were halted by the Trump Administration.

EPA's Regional Haze Program is one source of cooperative federalism controversy. Created by the Clean Air Act Amendments of 1977, the Regional Haze Program seeks to address visibility in and around designated federal lands—known as Class I areas.[62] The role of EPA under this Program is to ensure state plans include "emission limits, schedules of compliance and

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[59] *See* 40 C.F.R. pt. 50.
[60] 42 U.S.C. § 7410(a)(2)(A).
[61] *Id.* at § 7410(a)(2)(B)–(C).
[62] *Clean Air Act Amendments of 1977*, Pub. L. 95-95, § 128, 91 Stat. 685.

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other measures as may be necessary to make reasonable progress toward meeting the national goal."[63] Unlike other CAA programs, Regional Haze goals are not mandatory standards that must be achieved by a particular date.[64] States—and not the EPA—take the lead for setting visibility goals and working with neighboring states to achieve progress in Class I areas.[65] EPA, after nearly six years of review, took an unprecedented step and rejected Texas' Regional Haze plan in 2016.[66] Concluding the Texas plan failed to evaluate emissions on a "source-by-source basis," EPA adopted its own federal plan imposing new emission limitations on fourteen electric generating units in Texas which would have required upgrades and new scrubbers on existing units.[67] Texas and a number of stakeholders challenged EPA and the Fifth Circuit stayed the EPA action acknowledging "the institutional injury to Texas from [EPA's] the inversion of the federalism principles enshrined in the Clean Air Act."[68] While the Fifth Circuit provided reassurance that states play a primary role in developing regional haze plans, EPA's second guessing of state actions raises serious questions whether or not the Agency will respect similar boundaries in the CAA.[69] While serving as Oklahoma Attorney General, Administrator Pruitt led a similar legal challenge against EPA to uphold the Oklahoma Regional Haze Plan causing many to believe, in the near-term, EPA will provide substantial deference to state regional haze plans.[70]

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[63] 42 U.S.C. § 7491(b)(2).
[64] Regional Haze Regulations, 64 Fed. Reg. 35,714, 35,733 (July 1, 1999).
[65] *Am. Corn Growers Ass'n v. EPA*, 291 F.3d 1, 2 (D.C. Cir. 2002).
[66] *See* Regional Haze State Implementation Plans, 81 Fed. Reg. 296, 313 (Jan. 5, 2016) (to be codified at 40 C.F.R. pt. 52) ("We have not disapproved other states' reasonable progress/long-term strategy consultation processes[.]").
[67] Approval and Promulgation of Implementation Plans; Texas and Oklahoma, 79 Fed. Reg. 74,818, 74,838 (Dec. 16, 2014). ("[B]ecause the TCEQ did not evaluate controls on a source-by-source basis, source-specific factors related to the evaluation of the reasonable progress four factor analysis could not be considered.").
[68] *Texas v. EPA,* 829 F.3d 405, 434 (5th Cir. 2016).
[69] P. Stephen Gidiere III, *Empowering States Under the Clean Air Act's Regional Haze Program*, 47 TEX. ENVTL. L.J. 135, 150–52 (2017).
[70] *See Oklahoma v. U.S. EPA*, 723 F.3d 1201 (10th Cir. 2013); *see also* Norman W. Fichthorn, *An Opportunity for a New Federal-State Relationship Under the Regional Haze Program*, 48 ABA Trends 6 (2017).

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In a number of recent legal disputes, federal courts disagreed with how states view their enforcement responsibilities under SIPs. In particular, the D.C. Circuit rejected Texas and Wyoming's cooperative federalism argument in 2013 that certain permitting requirements do not apply to a facility for a new pollutant until it is incorporated into the applicable SIP. That Court ultimately found it was appropriate for EPA to step in and implement its own federal permitting measures until the SIPs were amended.[71] EPA also prevailed in its challenge to the "unavoidable breakdown rule" incorporated into the Utah SIP because (1) the measure suggests Utah had exclusive authority to decide whether an excess emission was a violation and (2) the Utah rule misapplied a federal technology-based standard which already included a malfunction provision.[72] The outcome in Utah resulted in less flexibility for states implementing SIPs due to fears certain measures would prevent EPA, or a third-party, from enforcing its right to intervene under the CAA.[73] Collectively, the two cases suggest EPA can limit state flexibility to enforce their own plans when it appears a state measure either hinders federal enforcement or delays implementation of a federally promulgated standard.[74]

When the Obama Administration rolled out its Clean Power Plan (CPP) in October 2015, political and legal criticism was focused largely on the heavy-handed nature in which the federal government sought to require states to reduce carbon dioxide emissions from existing power plants. In particular, states alleged the implementation of the CPP would fundamentally change the CAA's "'cooperative federalism' regime."[75] CPP was designed to require states to adopt

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[71] *Texas v. EPA*, 726 F.3d 180, 185–92 (D.C. Cir. 2013).
[72] *U.S. Magnesium, LLC v. EPA*, 690 F.3d 1157, 1161–63 (10th Cir. 2012).
[73] *U.S. Magnesium*, 690 at 1162.
[74] Kurt G. Kastorf, *Cooperative Federalism: Is There a Trend Towards Uniform National Standards Under the Clean Air Act*, 45 ABA Trends 5 (2014).
[75] Brief for the Petitioner's Motion for Stay at 20, West Virginia v. EPA, No. 15-1363 (D.C. Cir. Oct. 23, 2015).

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SIPs making significant reductions in carbon dioxide emissions from existing power plants—resulting in major changes in how many states generate electricity.

Section 111 of the CAA addresses the regulation of certain new and existing sources of air pollution—known as the New Source Performance Standards (NSPS) program. EPA has primarily relied on its regulatory authority under section 111(b) to develop standards of performance for new sources of pollution.[76] The CPP instead relies on a little used provision, section 111(d), requiring EPA to adopt performance standards for any existing stationary source that would be subject to a standard under section 111(b) if it were a new source. In its forty-year history, EPA has only exercised section 111(d) on five occasions to regulate three pollutants because the provision may only be used to regulate pollutants that are neither "criteria" pollutants regulated under the NAAQS program nor "hazardous" pollutants under section 112.[77] With the CPP, each state would have been required to submit a SIP providing for the implementation and enforcement of the federal standard of performance for greenhouse gases.[78]

The CPP was criticized as an impermissible intrusion into state's rights because the regulation of public utilities has long been recognized by the Court as a police power under the Tenth Amendment.[79] Although Congress may regulate interstate commerce, Congress expressly carved out state power in matters not pertaining to wholesale electric sales so that states could "retain their traditional responsibility in the field of regulating electrical utilities for determining questions of need, reliability, cost, and other related concerns."[80] With respect to the CPP, constitutional scholar Lawrence Tribe noted, "EPA's proposal impermissibly trenches on state

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[76] *See* 42 U.S.C. § 7411(b)(1).
[77] Peter S. Glaser & Carroll W. McGuffey, *Regulating Greenhouse Gases Under the Clean Air Act: Is the Bubble About the Burst?*, 6 GEO. WASH. J. ENERGY & ENVTL. L. 1, 7 (2016).
[78] Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,662, 64,758 (Oct. 23, 2015) (to be codified at 40 C.F.R. pt. 60) [hereinafter *Clean Power Plan*].
[79] *See Munn v. Illinois*, 94 U.S. 113, 124–25 (1877).
[80] *Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm'n*, 461 U.S. 190, 205 (1983); *see also New York v. FERC*, 535 U.S. 1, 24 (2002); *and Fed. Power Comm'n v. S. Cal. Edison Co.*, 376 U.S. 205, 215–16 (1964).

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authority over intrastate energy regulation in a way that is unprecedented under the Clean Air Act and raises serious constitutional questions under the Tenth Amendment and long-settled principles of federalism."[81] The U.S. Supreme Court stayed the implementation of the Clean Power Plan on February 9, 2016 rendering its implementation deadlines moot.[82] EPA announced its plan to repeal the CPP on October 16, 2017 and litigation over the merits is pending in the D.C. Circuit Court of Appeals.[83] On December 16, 2017, the Trump Administration issued a notice seeking comments on what a new plan should look like and in it emphasized the need for state flexibility in setting emission standards or compliance schedules.[84]

IV. Cooperative Federalism in the CAA: The North Dakota Experience

The dynamic of cooperative federalism under the Clean Air Act has real-world impacts on oil and gas operators. This section discusses how recent EPA enforcement actions have focused on oil and gas emissions.

a. Overview of North Dakota Oil and Gas Production

North Dakota is the second largest crude oil producer in the nation and ranks second after Texas in crude oil reserves.[85] Production is focused in the Bakken formation in western North Dakota in the Williston Basin, an area of several hundred thousand square miles. The Williston Basin has an estimated seven billion barrels of crude oil reserves. Between 2006 and 2015, crude oil production in North Dakota increased eleven-fold, to almost 3.4 billion barrels. The

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[81] *EPA's Proposed 111(d) Rule for Existing Power Plant: Legal and Cost Issues: Hearing Before the Subcomm. on Energy & Power of the H. Comm. on Energy & Commerce,* 114th Cong. (2015) (statement of Lawrence H. Tribe, Professor, Harvard Law School).
[82] *West Virginia v. EPA*, 136 S. Ct. 1000 (2016) (order issuing stay of Clean Power Plan).
[83] Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 82 Fed. Reg. 48,035 (Oct. 16, 2017).
[84] U.S. ENVTL. PROT. AGENCY, ADVANCE NOTICE OF PROPOSED RULEMAKING: STATE GUIDELINES FOR GREENHOUSE GAS EMISSIONS FROM EXISTING ELECTRIC UTILITY GENERATING UNITS (Dec. 18, 2017).
[85] U.S. ENERGY INFO. AGENCY, NORTH DAKOTA STATE PROFILE AND ENERGY ESTIMATES (2017), https://www.eia.gov/state/analysis.php?sid=ND.

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increase was attributable to refined horizontal drilling and hydraulic fracturing techniques, seen elsewhere in the United States.

North Dakota is home to several Native American tribes. The Fort Berthold Indian Reservation (FBIR) is the tribal land of the Mandan, Hidatsa, and Arikara nations—known as the Three Affiliated Tribes. The FBIR lies at the heart of the oil producing Williston Basin. The FBIR accounts for almost one-fifth of North Dakota's daily oil production.[86]

b. Overview of Emissions from Oil and Gas Production

Upstream and associated midstream equipment produces air emissions that are regulated under the CAA and state law.[87] The crude oil from the Bakken contains a high amount of light hydrocarbon components such as ethane, propane, butane, and pentane, and methane. The production methods employed by operators involve the separation of the crude oil, and the natural gas containing these components. Unless a natural gas sales pipeline is available and is used to receive the associated natural gas, it becomes a significant source of volatile organic compounds (VOC) emissions unless flared in a controlled manner that reduces emissions.

Hydrocarbon liquid storage tanks are ubiquitous in upstream and midstream operations. At the well site, operators extract hydrocarbons and separate the mixture of liquid hydrocarbons and gas from water and solids. Operators typically store crude oil, condensate, and produced water in fixed-roof storage tanks. Storage tanks may emit VOCs through working, breathing, and flash losses. For example, flash losses occur when crude oils or condensates flow into a storage tank from a processing vessel operated at a higher pressure. Controls for tank emissions generally

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[86] *Id.*

[87] Colin Harris & Ivan London, *There's Something in the Air: New and Evolving Air Quality Regulations Impacting Oil and Gas Development,* 58 RMMLF-INST 6-1 (2012). A detailed engineering explanation of oil and gas equipment, associated emissions, and control technologies, is available at *Control Techniques Guidelines for the Oil and Gas Industry* (2016), https://www.epa.gov/sites/production/files/2016-10/documents/2016-ctg-oil-and-gas.pdf.

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involve combustion or flare processes. When gas is transported through the midstream sector, emissions are generated during the processing and compression stages.

At both the well pad and during midstream operations, component leakage of VOC's is a recognized problem. For example, pumps, pressure relief valves, flanges, and compressors can leak due to routine seal failure. The emissions from such leaks are called "fugitive" emissions. Various regulations and permits may require operators to implement leak detection and repair (LDAR) programs to address this issue. Increasingly, operators (and inspectors) routinely and voluntarily rely on infrared cameras to detect fugitive emissions.[88]

c. North Dakota and EPA: Cooperative Federalism Framework under CAA for Regulation of Emissions from Oil and Gas Development

North Dakota's experience with regulating emissions from oil and gas development in the Bakken provides insight into how the relationship between a state and the federal government can shift under cooperative federalism. The next section highlights some of the ebb and flow of sharing responsibility for Clean Air Act enforcement and how over the course of only several years an amicable regulatory relationship turned litigious, and how the EPA under Pruitt may restore or change the tension that resulted.

i. North Dakota is "Attainment" and therefore Avoids Any Cooperative Federalism Conflicts with EPA Regarding Non-Attainment SIPs

Briefly mentioned before, EPA has established NAAQS for six "criteria pollutants." The criteria pollutants of most concern to oil and gas operators are emissions of ozone precursors—NOx and VOCs. Oil and gas activities in heavily developed basins or populated regions contribute to ozone levels exceeding the NAAQS. Recent EPA revisions of the ozone standards make it increasingly difficult for major metropolitan areas near operating basins and even some

[88] *Methane Hunt: Tech Helps Colorado Oil And Gas Operators Lead The Way*, COLORADO PUBLIC RADIO (May 9, 2016), http://www.cpr.org/news/story/methane-hunt-tech-helps-colorado-oil-and-gas-operators-lead-way

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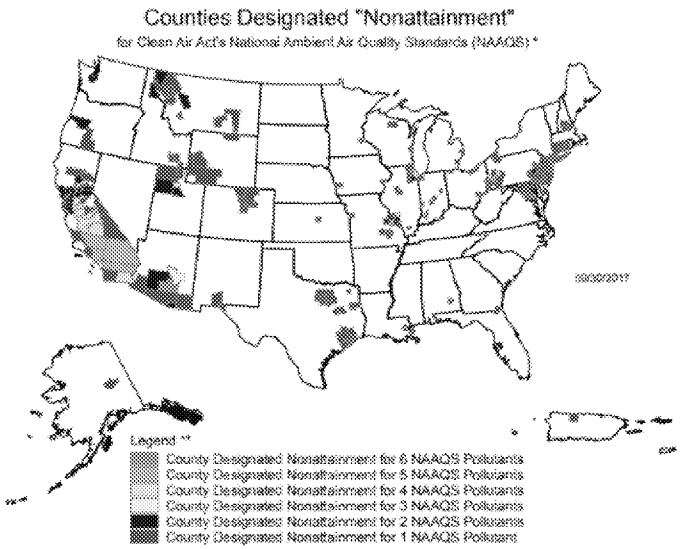
remote oil and gas producing regions to meet the NAAQS. The following table shows counties designated as nonattainment for NAAQS standards in 2017.



Source: https://www3.epa.gov/airquality/greenbook/mapnpoll.html

The green shading in Colorado and Wyoming represents ozone "non-attainment" zones that encompass important oil and gas producing basins in those states. If EPA designates an area non-attainment, then the state must develop a plan to bring the area back into attainment within a specified period. The plan must be approved by EPA.[89] The applicable regulations impose strict emission controls and other measures on sources operating or proposing to build in nonattainment areas. For example, Colorado has strict non-attainment regulations imposed on the oil and gas production industry that operates in the prolific Denver-Julesburg (D-J) Basin in northeast Colorado, where there are now over 20,000 active wells, but also other sources

[89] *See, e.g.,* Approval and Promulgation of Air Quality Implementation Plans; Wyoming, 81 Fed. Reg. 35,271 (June 2, 2016).

generated by Denver metropolitan area activities.[90] North Dakota is "attainment" for all pollutants, and therefore, is not required to implement any non-attainment program regulations for the oil and gas sector, despite the proliferation of development over the past ten years. This is significant because lengthy legal challenges often result when states and EPA disagree over measures to address "non-attainment" concerns.[91]

ii. North Dakota Implements the Permit Program Required Under the CAA, and in Cooperation with Industry and EPA, Resolved Concerns about Permitting of new Oil and Gas Production Facilities

Consistent with the cooperative federalism framework of the CAA, states typically take the lead in ensuring that oil and gas activities do not violate the NAAQS. The North Dakota SIP implements the permit system required by the CAA.[92] Very generally, North Dakota's program divides sources into larger emitting facilities, known as "major sources," and facilities that emit less than "major" amounts, or "minor sources."[93] For example, if VOC emissions from a proposed new or modified emitting facility are projected to emit, or potentially could emit levels of pollution above certain threshold amounts, a preconstruction "major source" permit is required.

Major source permitting is usually reserved for only the largest air pollution sources, such as power plants, refineries, and manufacturing facilities. This permitting process is time-consuming (over a year), complex, and expensive. New or modified emitting facilities in North Dakota generally must calculate the "potential to emit" of the facility before commencing construction

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[90] L.C. Cheadle, et al., *A 2017 Surface ozone in the Colorado northern Front Range and the influence of oil and gas development during FRAPPE/DISCOVER-AQ in summer 2014*, 5 ELEMENTA SCI. ANTHROPOCENE 61 (2015), https://doi.org/10.1525/elementa.254.
[91] *See, e.g., Texas v. EPA*, 726 F.3d 180 (D.C. Cir. 2013); *see also Michigan v. EPA.*, 213 F.3d 663 (D.C. Cir. 2000).
[92] Approval and Promulgation of State Implementation Plan Revisions; North Dakota, 79 Fed. Reg. 25,021 (May 2, 2014).
[93] *Compare* N.D. ADMIN. CODE 33-15-14-03 (2017); *with* N.D. ADMIN. CODE 33-15-14-06 (2017).

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or making modifications. In the first step, potential to emit (PTE) is the maximum amount of regulated pollutants the facility can generate at full production. The second step in the calculation is to subtract from emission reductions that result from pollution control equipment, or throughput limitations, or other steps that reduce emissions.[94] However, this is only allowed if there is a regulation or a permit that specifically incorporates the controls or the restriction. Such regulations or permit conditions are known as "enforceable" limitations on PTE, because they contain monitoring, record-keeping, and reporting requirements that would allow EPA or North Dakota regulators to easily determine compliance or noncompliance, and are mechanisms that can be enforced in a court.[95] A permit incorporating such regulations and limitations is known as a "synthetic minor" permit. Voluntary actions taken to reduce emissions are not "enforceable" and therefore cannot be considered in performing the PTE calculation.

In the 2011 time-frame, it became clear that the North Dakota Department of Health, Division of Air Quality (NDDoH) could not timely issue synthetic minor permits for existing well pads that were constructed with a PTE in excess of the Prevention of Significant Deterioration (PSD) major source threshold for VOC, or new well pads that would be major sources. In the absence of synthetic minor permits, operators in the Bakken would not have been able to produce from existing well pads, or build and produce from new ones, in compliance with North Dakota law. For this reason, NDDoH worked with stakeholders to develop the Bakken Pool Guidance which "provides owners and operators of Bakken Pool O&G production facilities that have the potential to emit air pollutants below the major source thresholds [minor production

[94] *See* N.D. ADMIN. CODE 33-15-14-06(1)(u)(2017).
[95] *See* N.D. ADMIN. CODE 33-15-14-03(e)(2017).

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facilities]…with an alternative to obtaining North Dakota air pollution control permits."[96] Additionally, crude produced from the associated three Bakken formations contains high amounts of lighter end components which have the potential to produce increased volumes of flash emissions, which is why standard industry equations for calculating flash losses are inadequate.[97] Since emissions associated with the exploration and production of oil and gas cannot be predicted with any degree of precision until site-specific production data is collected, North Dakota notes this makes oil and gas development unlike other stationary sources where emissions are projected in advance in preparation for a pre-construction air permit.[98]

NDDoH also entered into "consent agreements" where operators paid penalties for past alleged PSD violations associated with major sources, and became subject to enforceable emission limits that could be considered in calculating PTE.[99] The Bakken Pool Guidance was designed by NDDoH in 2011 to assist oil and gas operations with consistently estimating VOC emissions from production facilities and determine the appropriate steps complying with air quality standards.[100] By entering into the agreement, operators agreed future non-compliance issues would be resolved on a case-by-case basis.[101]

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[96] NORTH DAKOTA DEPARTMENT OF HEALTH, DIVISION OF AIR QUALITY, BAKKEN POOL OIL AND GAS PRODUCTION FACILITIES: AIR POLLUTION CONTROL PERMITTING & COMPLIANCE GUIDANCE at 5 (May 2, 2011) [hereinafter *Bakken Guidance*]
[97] *Id.* at 6.
[98] *Id.* at 5.
[99] Memorandum from Terry L. O'Clair, Director North Dakota Division of Air Quality to Oil and Gas Operators (May 2, 2011); *see also* Nicholas Kusnetz, *How oil and gas firms gained influence and transformed North Dakota*, CENTER FOR PUBLIC INTEGRITY (July 21, 2014), https://www.publicintegrity.org/2014/07/21/15107/how-oil-and-gas-firms-gained-influence-and-transformed-north-dakota.
[100] Bakken Guidance at 5.
[101] Trinity Consultants, North Dakota Department of Health Releases Bakken Guidance (Oct. 29, 2013), https://www.trinityconsultants.com/news/states/north-dakota/north-dakota-department-of-health-releases-bakken-voc-consent-decree.

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iii. North Dakota Does Not Adopt New Source Performance Standards

In 1970, Congress enacted CAA section 111, which requires EPA to establish emission source performance standards for new and modified stationary sources falling within particular industrial categories—standards referred to as NSPS. These performance standards generally apply when a stationary source begins construction, reconstruction, or modification after proposed regulations are promulgated for a source category. The CAA refers to such sources as "affected facilities."[102] In 1985, EPA promulgated NSPS for equipment leaks of VOCs from onshore natural gas processing plants.[103] The rules applied to two types of affected facilities—gas plant compressors and process units with the potential to leak VOCs.[104] Aside from its 1985 standards, EPA did not attempt to again set NSPS specifically for the oil and natural gas source category until 2012.

EPA adopted NSPS for the oil and gas source category to regulate VOC and sulfur dioxide (SO_2) emissions in August 2012.[105] These standards regulate VOC emissions from gas wells, centrifugal compressors, storage vessels, and leaking components on natural gas processing plants.[106] The regulations also adopt emission requirements for SO_2 from natural gas processing plants.[107] Codified in Subpart OOOO of 40 C.F.R. Part 60, these measures served as the precursor to the methane emissions standards adopted for oil and gas in 2016. North Dakota did

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[102] *See* 40 C.F.R. § 60.2 ("Affected facility means, with reference to a stationary source, any apparatus to which a standard is applicable.").
[103] Standards for Performance for New Stationary Sources; Equipment Leaks of VOC From Onshore Natural Gas Processing Plants, 50 Fed. Reg. 26,122, 26,124 (June 24, 1985) (codified in their current form as Subpart KKK at 40 C.F.R. §§ 60.630–636).
[104] *Id.* at 26,122.
[105] *See* 40 C.F.R. § 60.5360 (2017) (codified as "Subpart OOOO").
[106] Oil and Gas Sector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Review, 77 Fed. Reg. 49,490, 49,492 (Aug. 16, 2012).
[107] *Id.*

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not adopt the VOC and SO_2 standards—instead, state regulators took the position that the EPA requirements were consistent with North Dakota's Bakken Pool Guidance issued in 2011.[108]

After EPA adopted the VOC and SO_2 standards, the Obama Administration set its sights on adopting emissions requirements for methane at oil and gas facilities. In June 2016, the EPA finalized its new greenhouse gas standards for the oil and gas source category relying on its authority under section 111 of the CAA.[109] This Obama Administration rule created new source performance standards for existing oil and gas activities including previously unregulated activities such as hydraulically fractured well completions, well sites, and natural gas compressor stations.[110] As a result, the rule was the first to directly regulate methane emissions—as a greenhouse gas—from oil and gas activities.

EPA codified its methane regulation as Subpart OOOOa giving it the moniker "Quad Oa" amongst industry stakeholders. Fifteen states, including North Dakota, challenged the Quad Oa rule as a violation of the Clean Air Act, the Administrative Procedure Act, and "fundamental principles of federalism."[111] In particular, the State argued the Quad Oa standards conflicted with existing state enforcement regulations and interfered with North Dakota law as it relates to well flowback requirements.[112] With EPA under new leadership, Administrator Pruitt sought a

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[108] Memorandum from L. David Glatt, Chief, North Dakota Environmental Health Section to ND Oil and Gas Operators (Oct. 19, 2015).
[109] Oil and Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources, 81 Fed. Reg. 35,824, 35,828 (June 3, 2016).
[110] *Id.* at 35,825.
[111] Letter from L. David Glatt, Chief, North Dakota Environmental Health Section, to Scott Pruitt, Administrator, U.S. EPA (Aug. 15, 2017); *see also North Dakota v. EPA*, 16-1242 (D.C. Cir. 2016) (Pet. for Review).
[112] *See* North Dakota's and Texas' Brief as Amicus Curiae in Support of EPA's Opposition to Petitioner's Emergency Motion for a Stay, Clean Air Council, et al. v. Pruitt, No. 17-1145 at 7 (D.C. Cir. June 21, 2017).

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temporary 90-day stay of the Quad Oa compliance date. However, as discussed later in this paper, the D.C. Circuit ruled against the stay.[113]

d. EPA Implements the CAA on the FBIR, Creating Unique Federalism Concerns in North Dakota for Oil and Gas Producers

The CAA authorizes Indian tribes to implement the CAA, including the PSD permitting program, in "Indian Country" if the tribe meets certain conditions. This status is known as "treatment in a manner similar as a state" or "TAS."[114] TAS is a status for which a tribe must apply to EPA. In cases where a tribe chooses not to develop a program, EPA generally issues permits and otherwise administers the CAA in Indian country in accordance with federal regulations.[115] The Three Affiliated Tribes have not applied for or obtained approval to administer the CAA program. Therefore, EPA retains authority to implement the CAA for all regulated air pollution sources located on the FBIR.

According to EPA, "the need to address VOC emissions from coproduced natural gas from oil and natural gas production sources on the FBIR was first brought to EPA's attention approximately 12 months" after promulgation of the Tribal Minor NSR [New Source Review] program."[116] Specifically, "hundreds of individual facilities would be required to obtain major source PSD permits unless they could obtain legal and practicably enforceable limits on the facilities' potential to emit."[117] Unfortunately, EPA lacked the permitting resources to timely issue synthetic minor permits through the Tribal Minor NSR program for existing well pads that were constructed with a PTE in excess of the PSD major source threshold for VOC, or new well

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[113] *Clean Air Council v. Pruitt*, No. 17-1145 (D.C. Cir. July 3, 2017).
[114] 40 C.F.R. pt. 49 (EPA Clean Air Act TAS regulations).
[115] *See* 42 U.S.C. § 7601(d)(4); 40 C.F.R. §§ 52.21(a), 71.4(b); *see also Arizona Pub. Serv. Co. v. EPA*, 211 F.3d 1280, 1288, 1294–95 (D.C. Cir. 2000).
[116] Approval and Promulgation of Federal Implementation Plan for Oil and Natural Gas Well Production Facilities; Fort Berthold Indian Reservation, 77 Fed. Reg. 48,878, 48,879 (Aug. 15, 2012) [Hereinafter *FBIR FIP*].
[117] *Id.*

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pads that would be major sources. In the absence of synthetic minor permits, operators on the FBIR would not have been able to produce from existing well pads, or build and produce from new ones, in compliance with the CAA.[118]

To accommodate this "unique situation" EPA entered into one-year "consent agreements" with operators on the FBIR in August 2011, whereby the operators paid penalties for past alleged PSD violations, and became subject to enforceable emission limits that could be considered in calculating PTE. EPA then faced the task of developing and finalizing permits for more than 600 oil and gas production facilities on the FBIR within this one-year period and did not issue the first batch of draft synthetic minor permits until March 2012.[119] EPA realized that it could not issue the permits before the consent agreements expired and that operators would again be put in the position of operating in violation of the requirement to obtain PSD permits for well pad sources with a PTE above major source thresholds.[120]

As a result, on August 15, 2012, EPA promulgated a stop-gap, interim rule imposing emissions limits and requiring controls for certain oil and gas facilities that EPA would consider enforceable, provided that operators were in compliance with the requirements.[121] EPA finalized this rule, with some changes, in March, 2013.[122] The rule requires that within 90-days from initial production, VOC emissions from well pads be controlled by enclosed combustors or flares operating at 98 percent destruction efficiency.[123] If the well pad is connected to a gas pipeline,

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[118] *Id.* at 48,8880.
[119] *Id.*
[120] *Id.*
[121]FBIR FIP at 48,885.
[122] Approval and Promulgation of Federal Implementation Plan for Oil and Natural Gas Well Production Facilities; Fort Berthold Indian Reservation, 56 Fed. Reg. 17,836 (March 22, 2013).
[123] 40 C.F.R. § 49.4165(c).

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the operators can use a pit fare as a backup control, but only for 500 hours per year.[124] The rule imposes significant monitoring and recordkeeping requirements.[125]

e. EPA Pursues the Oil and Gas National Enforcement Initiative in North Dakota

EPA selects National Enforcement Initiatives (NEIs) every three years to focus its enforcement on industry sectors where EPA contends there is significant noncompliance, or where EPA believes it can achieve significant environmental benefits. The Obama Administration EPA added the oil and gas sector to its NEI in 2011 and within one year increased the number of inspections from 361 to 870.[126] On February 18, 2016, EPA extended the energy extraction NEI for Fiscal Years 2017 to 2019.[127]

As part of the energy extraction NEI, EPA issued a "Compliance Alert" in September 2015. EPA claimed that it and certain states had "identified Clean Air Act compliance concerns regarding significant emissions from storage vessels" at upstream and midstream facilities. EPA identified steps operators should be taking to reduce emissions, such as reducing liquid pressure prior to transferring the tank dumps, increasing the size of piping used for vent lines, preventing liquid and gas accumulation in lines and carry-over, ensuring that pressure relief valves operate only as emergency relief valves, and installing proper thief hatch gaskets.[128] Of most significance, EPA advised that operators should conduct sampling and modeling to estimate potential peak flow of emissions.

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[124] *Id.* at § 49.4165(d).
[125] *Id.* § 49.4166–49.4166.
[126] *See* U.S. ENVTL. PROT. AGENCY, NATIONAL ENFORCEMENT INITIATIVE: ENSURING ACTIVITIES COMPLY WITH ENVIRONMENTAL LAWS, https://www.epa.gov/enforcement/national-enforcement-initiative-ensuring-energy-extraction-activities-comply
[127] *Id.*
[128] Letter from L. David Glatt, Chief, North Dakota Environmental Health Section, to North Dakota Oil and Gas Operators (Oct. 19, 2015).

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Also in 2015, EPA reached a landmark settlement under the energy extraction NEI with Noble Energy, Inc. Noble Energy, Inc. (Noble) owns and operates approximately, 3,400 tank batteries that are connected to approximately 2,400 vapor control systems in the Denver-Julesburg Basin, which is located in the Denver ozone nonattainment area.[129] EPA and Colorado alleged that Noble's operation of various facilities violated a regulation in Colorado's SIP providing that "all condensate…[storage]…shall be designed, operated, and maintained so as to minimize leakage of VOC's…to the maximum extent practicable" and that "all air pollution equipment shall be adequately designed and sized…to handle reasonably foreseeable fluctuations in emissions of [VOC's].[130] Fluctuations in emissions that occur when the separator dumps into the tank are reasonably foreseeable."

Noble, the United States, and the State of Colorado entered into a consent decree to settle the allegations in April 2015. The settlement resolves claims that Noble failed to adequately design, size, operate, and maintain vapor control systems on its controlled condensate storage tanks, resulting in emissions of VOCs. The settlement highlighted EPA's focus under the Obama Administration on the design of vapor control systems at oil and gas well sites, and leaking components on storage tanks. The settlement also demonstrated that EPA, at that time, wanted to secure "beyond compliance" requirements, and force implementation of next generation compliance technologies and concepts.

The settlement requires Noble to implement various "environmental mitigation projects," in the amount of $4.5 million.[131] These include:

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[129] Consent Decree, United States v. Noble Energy Co., 1:15-cv-00841 (D. Colo. Apr. 20, 2015) [Hereinafter *Noble Consent Decree*]
[130] Noble Consent Decree at 2.
[131] Noble Consent Decree at 36–38.

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- Use of a closed system of loading condensate from storage;
- A drill rig diesel engine retrofit project to reduce NOx emissions;
- A retrofit Fracturing Equipment Retrofit Project.

Noble must also fund various Supplemental Environmental Projects:

- $1 million Pressurized Liquids Sampling and Analysis Reliability Study;
- $1 million to sponsor a wood-burning appliance replace/ retrofit project;
- $2 million for a state Supplemental Environmental Projects to be determined.

Noble also paid a $4.95 million civil penalty.[132]

i. The Energy Extraction NEI Reaches North Dakota, Raising Cooperative Federalism Concerns

In 2015 NDDoH issued a memo advising that it "shares EPA's concerns" relative to the issues raised in the Compliance Advisory.[133] NDDoH advised operators to investigate the issues raised in the Compliance Alert and to take any required corrective measures. This opened a dialogue with the industry regarding best practices to minimize emissions. However, at the same time, EPA was extending its energy extraction NEI to the upstream industry in North Dakota.

EPA has expansive authority under Clean Air Act section 114 to request any information it may reasonably require for developing regulations or determining compliance.[134] Significant enforcement cases often begin with section 114 "information requests,"[135] as was the case with the Noble Energy consent decree. EPA issued several detailed and lengthy section 114

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[132] *Id.* at 38–40.
[133] Memorandum from L. David Glatt, Chief, North Dakota Environmental Health Section to ND Oil and Gas Operators (Oct. 19, 2015).
[134] 42 U.S.C. § 7411(a).
[135] 42 U.S.C. § 7414(a)(1).

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information requests to oil and gas operators in the Bakken in furtherance of its enforcement plans.[136] Operators had to provide voluminous technical information about the design of its well pad vapor control systems, and calculate whether the systems were adequately designed to handle the peak flow of the vapors associated with the movement of oil and produced water to the storage tanks. EPA also sought pre-construction design analyses.

EPA then attempted to extend the Noble Consent Decree template to operators in North Dakota. Specifically, following federal inspections in 2014, EPA alleged that Slawson Exploration Company, Inc. (Slawson) failed to adequately design, operate, and maintain vapor control systems on its storage tanks to control VOCs.[137] Slawson Exploration Company Inc. (Slawson) operates approximately 170 oil and gas wells in North Dakota including wells within and around the Fort Berthold Indian Reservation.

In December 2016, the United States and Slawson entered into a consent decree in the Federal District Court of North Dakota.[138] Structurally, the Slawson Consent Decree is similar to the Noble Consent Decree. The purpose of both generally is to determine whether vapor control systems are adequately sized and properly functioning. Each contains infra-red camera initial verification requirements, corrective measures, one-time third party auditing, and root-cause analyses (if emission thresholds are observed). The Slawson Consent Decree is less stringent in important aspects. For example, the reporting generally is less burdensome, and specifically there is no requirement to prepare and publicize “”End of Phase Reports.” The

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[136] *See, e.g,* Letter from Ron Ness, President, North Dakota Petroleum Council, to Scott Pruitt, Administrator, U.S. EPA (Mar. 31, 2017).
[137] Press Release, U.S. EPA, Slawson Exploration Company, Inc., to Make System Upgrades and Undertake Projects to Reduce Air Pollution in North Dakota (Dec. 1, 2016), https://www.epa.gov/enforcement/reference-news-release-slawson-exploration-company-inc-make-system-upgrades-and
[138] Consent Decree, United States v. Slawson Exploration Company, Inc., 1:16-cv-413 (D.N.D. Dec. 1, 2016) [Hereinafter *Slawson Consent Decree*].

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requirement to conduct infra-red camera inspections is limited to semi-annual frequency.[139] And there is flexibility in the timing for completing corrective measures if emissions are detected. [140]

NDDoH and the upstream industry believed that a cooperative approach to resolving the issues in the Compliance Alert, led by NDDoH but with EPA's involvement and concurrence, was a more appropriate path forward than the section 114 requests, and the Noble Consent Decree template, with its unduly restrictive injunctive relief and heavy emphasis on penalties. NDDoH and the industry effectively sought a "cooperative federalism" solution based on the very reasons that a state enjoys primacy under the CAA. In the case of North Dakota and the oil and gas industry, this includes the unique characteristics of the Bakken play, the complexities of regulating upstream well pad facilities (the PTE issue discussed above), the fact that North Dakota is in attainment for criteria pollutants, and North Dakota's policy of emphasizing practical compliance that achieves emissions reductions, as opposed to heavy reliance on large penalties. North Dakota also had a successful track record with a state-wide industry solution in 2011 which resulted in the Bakken Pool Guidance.

ii. Formation of Industry Task Force to Address Compliance Initiative Issues, and North Dakota State-Led Settlement Process

As explained above, North Dakota shared EPA's concerns, expressed in the 2015 "Compliance Alert," about potential emissions associated with the design, maintenance and operation of vapor control systems.[141] Unlike EPA, however, North Dakota did not pursue operators through burdensome information requests, nor did North Dakota join EPA's efforts to

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[139] Slawson Consent Decree at 26.

[140] Slawson Consent Decree at 21; *see also* Press Release, U.S. EPA, Slawson Exploration Company, Inc., to Make System Upgrades and Undertake Projects to Reduce Air Pollution in North Dakota (Dec. 1, 2016) (EPA touting the installation of "Next Generation" technologies. Specifically, the settlement required the company to install $1.5 million in equipment for auto-gauging tanks and to maintain electronic tank pressure monitors at Slawson's highest producing wells. Slawson also paid a $2.1 million civil penalty under the agreement), https://www.epa.gov/enforcement/reference-news-release-slawson-exploration-company-inc-make-system-upgrades-and.

[141] *See supra* IV.e.i.

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compel operators to execute federal court consent decrees, as EPA and Colorado had done in the D-J Basin with the Noble consent decree. Instead, the upstream industry in North Dakota created the Bakken Upstream Air Task Force (BUATF), which engaged in a "global" settlement process with NDDoH. The BUATF was comprised of about thirty upstream companies, constituting around 95 percent of the production in the Bakken.[142] The BUATF essentially continued the work of the VOC Task Force that resulted in the cooperatively negotiated Bakken Pool Guidance in 2011. The global settlement process commenced with the creation of industry sub-committees to study various technical issues, such as inspections and design, resulting in a draft technical guidance document. Many of the measures were voluntarily implemented by various operators, such as efforts to address thief hatch emissions (*e.g.,* adjusting set points), enhanced maintenance, and use of optical gas imaging (OGI) equipment such as FLIR cameras. In mid-2016, concepts in the draft guidance eventually were translated into relatively uniform compliance elements of settlement agreements between operators and NDDoH, and a penalty framework.

Operators could choose between an administrative settlement and a state consent agreement. Penalties, at least in relation to the Noble and Slawson settlements, were relatively modest, and reductions were available for operators that could demonstrate early compliance. The injunctive relief was aimed at issues raised in the Compliance Alert, with focus on prompt and practical corrective measures for the most significant emissions issues discovered, and development of operator-specific "QA/QC" programs for continuing maintenance. The elements of the federal consent decrees that many operators found to be unnecessary, duplicative, or counter-productive, such as third party auditing, and enhanced reporting, were absent from the state settlement

[142] Patrick C. Miller, *Finding and Fixing Fugitive Bakken Gas Emissions,* NORTH AMERICAN SHALE (July 22, 2016).

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framework. Numerous operators entered into either administrative settlements with NDDoH, or state court consent orders with North Dakota.

EPA was aware of and even participated, to some extent, in the BUATF and NDDoH cooperative approach to addressing the Compliance Alert emissions issues. The industry and NDDoH had hoped that EPA would embrace the State global settlement process so that operators would have comfort that EPA would not continue the section 114 process and "over-file" for the same alleged violations constituting the NDDoH actions.[143] Unfortunately, EPA effectively withdrew from the process in mid-2016. NDDoH elected to proceed without the apparent "buy-in" of EPA.

V. What's next in Cooperative Federalism

The NDDoH and upstream industry experience discussed in this paper exemplifies the tension that inherently exists when state and federal regulators share enforcement responsibilities under a cooperative federalism framework. When NDDoH and EPA determined that compliance issues had arisen regarding permitting of existing facilities, and would continue for new facilities, the respective agencies "stayed in their lanes" from an enforcement standpoint. NDDoH worked with industry to develop the Bakken Guidance and to create enforceable limitations on PTE, through settlements, for facilities outside the FBIR. EPA did the same for facilities on the FBIR, through administrative agreements and promulgation of the interim FIP. The dynamic of cooperative federalism was different regarding the issues raised by EPA in the Compliance Alert in 2015. EPA decided that it would initiate a more national enforcement approach, consistent with its energy extraction NEI, by aggressively pursuing operators through systematic section 114 requests, and then "one size fits all" consent decrees. This approach did

[143] 42 U.S.C. § 7413(b).

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not seem welcomed in North Dakota, which elected to assure compliance in a manner consistent with its own regulations, while balancing state enforcement priorities and goals. Operators were caught in the middle, having resolved alleged liability to the State, and having navigated a practical way forward, yet uncertain whether EPA was lurking in the shadows with its own enforcement case. Operators with facilities on the FBIR faced enhanced uncertainty.

It appears that the new EPA Administration has, at least for now, and at least in North Dakota, eliminated this cooperative federalism tension. Shortly after Administrator Pruitt was confirmed by the Senate, the November 2016 ICR directed at the oil and gas industry was rescinded and its recipients were no longer required to respond.[144] Customarily used by EPA to collect information for pre-enforcement purposes and criticized as a "back door" enforcement measure, the rescission of the section 114 request was considered a victory for industry.[145] In 2017, Administrator Pruitt also stated to the North Dakota Petroleum Council that "[g]oing forward, the EPA plans to focus on its Bakken oil and gas compliance assurance activities on operations on the Fort Berthold Indian Reservation where the state does not have Clean Air authority, and [NDDoH] will focus its efforts on operations outside of Indian country."[146]

Additionally, EPA's national enforcement initiatives from the Obama Administration remain in place. However, for the oil and gas sector, its likely Administrator Pruitt and senior leaders at EPA will pursue different enforcement priorities for oil and gas facilities looking forward.[147]

Although some of these actions by Administrator Pruitt have eased tensions between EPA and North Dakota, the Quad Oa methane standards for oil and gas facilities still looms over state

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[144] Press Release, U.S. EPA, EPA Withdraws Information Request for the Oil and Gas Industry (Mar. 2, 2017), https://www.epa.gov/newsreleases/epa-withdraws-information-request-oil-and-gas-industry.
[145] GOP Fears 'Back-Door' Enforcement With EPA Oil & Gas Data Queries, INSIDE EPA (Jun. 30, 2016).
[146] Letter from Scott Pruitt, Administrator, U.S. EPA, to Ron Ness, President, North Dakota Petroleum Council (July 22, 2017).
[147] Newsletter, Coalition for Responsible Waste Incinerators, CRWI Update at 4 (Nov. 30, 2017) (summarizing comments of Patrick Traylor, Deputy Assistant Administrator, U.S. EPA before the American Bar Association on November 16, 2017), http://www.crwi.org/textfiles/upnov17.pdf.

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regulators. As previously discussed, North Dakota and Texas joined industry groups in challenging the Obama-era Quad Oa regulations. Administrator Pruitt found merit in the reconsideration petition by North Dakota and other operators and stayed the rule's compliance date. However, the D.C. Circuit vacated the EPA's temporary stay of the rule leaving the rule temporarily in effect. The lesson here is that ultimately, cooperative federalism issues may be resolved not by EPA, or a state, but instead by a federal court.

Administrator Pruitt has noted "[c]ooperative federalism is key to maintaining clean air."[148] This constitutional framework—which rests environmental protection on shared federal and state regulation—is attributed to achieving an 85 percent reduction sulfur dioxide and 22 percent reduction in ozone nationwide since 1990.[149] However, critics of Administrator Pruitt's agenda to restore the balance of cooperative federalism have noticed that the number of EPA enforcement actions dropped significantly in the first year of the Trump Administration and that proposed cuts would not only target EPA staff and programs but would result in new burdens on state enforcement programs.[150] For oil and gas operators looking forward, efforts by Administrator Pruitt to re-prioritize enforcement, or claw back certain regulations, are viewed as sensible applications of cooperative federalism, replacing instances of "coercive federalism."

Clearly, in some cases, the new EPA administration has promptly and reasonably approved requests to give states primacy in programs where, under the prior administration, the requests languished. For example, after nearly four years of waiting, North Dakota is set to become the first state in the nation to receive approval for primary regulatory authority over the capture and

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[148] Press Release, U.S. EPA, EPA Advances Cooperative Federalism through Designation Process for Sulfur Dioxide and Ozone Standards (Dec. 22, 2017).
[149] *Id.*
[150] *See* Eric Lipton and Danielle Ivory, *Under Trump, E.P.A. Has Slowed Actions Against Polluters, and Put Limits on Enforcement Officers*, N.Y. TIMES, Dec. 10, 2017, at A1; *see also* Niina Heikkinen, *Pruitt wants to give power to states. Not all of them want it,* E&E NEWS CLIMATE WIRE (May 22, 2017).

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geologic storage of carbon dioxide (CO2) under the Safe Drinking Water Act.[151] This will allow North Dakota to pursue technologies to capture CO2 generated by coal-fired power plants for enhanced oil recovery. This is a prime example of cooperative federalism at work. A federal statute is designed to give implementing power to the states and a state seeks that authority in order to foster a policy goal important to the state, in this case, continued production fossil fuel energy sources.

Yet there is a growing sense that virtually any new EPA action is justified on cooperative federalism grounds. For example, the effort to revisit the Clean Power Plan is routinely hailed as an exemplar of a return to cooperative federalism. EPA has invoked cooperative federalism in announcing recent modest grants to states like Pennsylvania to implement non-point source water quality projects under the Chesapeake Bay Program and West Virginia to implement air quality initiatives.[152] In an important change to the implementation of the New Source Review (NSR) program under the CAA—criticized as a relaxation of permitting rules—Administrator Pruitt noted that the "implementation of the NSR program is one example of cooperative federalism under the CAA under which the state regulations have primacy once they are approved by the EPA."[153]

Caution should be exercised in rationalizing every new EPA action as a validation of cooperative federalism principles. The Clean Water Act actually provides for EPA leadership of the non-point source pollution program—through a state plan approval process—and mandates

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[151] State of North Dakota Underground Injection Control Program; Class VI Primacy Approval, 82 Fed. Reg. 22,949 (May 19, 2017).
[152] *See EPA Awards Pennsylvania $3.7 Million for Bay Restoration*, LANCASTER FARMING (Dec. 27, 2017); *see also WVDEP receives $300,000 grant for air quality programs*, WDTV WEST VIRGINIA (Dec. 20, 2017).
[152] Memorandum from Scott Pruitt, EPA Administrator on New Sources Review Preconstruction Permitting Requirements to Regional EPA Administrators at 8 (Dec. 7, 2017).
[153] *Id.* at 8.

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that the federal government provide grants to qualifying states. There is no real issue of power sharing under this framework. As for the Clean Power Plan, many commenters on both sides of the table have identified problems with the proposed program that have little or nothing to do with the issue of state versus federal power under the CAA. And it has always been the case that states with approved NSR programs have primacy in implementing the particular state NSR regulations. Interestingly, as to the NSR program, the incantation of cooperative federalism actually points to a heightened risk for the regulated community. By re-directing interpretive power to states, there may be a loss in certainty and uniformity, and a renewed patchwork of regulatory interpretations.

It remains uncertain whether proposed budget and staff cuts to EPA, and reductions to state grants, might actually hinder EPA's new embrace of cooperative federalism. Some states cannot now effectively administer or enforce all environmental statutes delegated to them, or depend heavily on EPA assistance to accomplish sound implementation of the federal programs. Shifting more power and authority to the states, while reducing direct state funding, and eliminating federal assistance and oversight, may result in a regulatory and enforcement vacuum. In addition, EPA has frequently been sued, in both Republican and Democrat Administrations, for failing to meet statutory deadlines for action. In instances where environmental groups sue EPA for failure to adhere to statutory deadlines in the CAA, the agency runs the risk that a court may set a tougher schedule for developing federal standards.[154] In this regard, neither EPA nor the state is in control of the regulatory agenda under cooperative federalism precepts. Another tenet of Pruitt's cooperative federalism framework is to redirect federal funding directly to states for environmental mitigation and enforcement purposes. However, EPA memorandum produced

[154] Carolyn M. Brown, *EPA Ends "Sue and Settle" Litigation Strategy*, NATIONAL LAW REVIEW (Dec. 21, 2017).

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by Administrator Pruitt acknowledges that under the cooperative federalism model, a state, at its discretion may have more stringent standards than federal protections.[155] As a result, EPA Administrators run the risk of directly funding a patchwork of state enforcement regimes where some states impose more stringent environmental standards than others—which is the same type of muddled regulatory environment that industries sought to avoid when supporting passage of the original federal Clean Air Act.

[155] Memorandum from Scott Pruitt, EPA Administrator on New Sources Review Preconstruction Permitting Requirements to Regional EPA Administrators at 8 (Dec. 7, 2017).

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2018 RMMLF SPECIAL INSTITUTE ON AIR QUALITY ISSUES AFFECTING OIL, GAS, AND MINING DEVELOPMENT AND OPERATIONS

Cooperative Federalism Under the Clean Air Act: New Horizons in State Regulatory and Enforcement Primacy Under a Trump EPA

- Colin G. Harris, Partner, Faegre Baker Daniels, Denver & Boulder, CO
- Alan Lindsey, Senior Legal Counsel, Hess Corporation, Houston, TX
- Maggie Olson, Assistant Attorney General, North Dakota Attorney General's Office, Bismarck, ND

FAEGRE BAKER DANIELS

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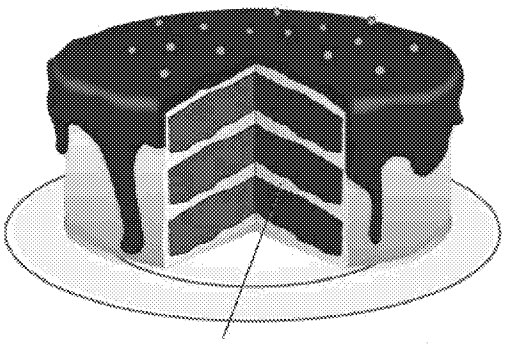
EPA 2017 Strategic Plan: "restore power to states through cooperative federalism"

Past

Layer Cake Federalism

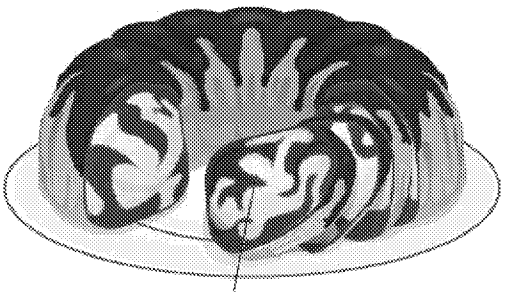


Programs and authority are clearly divided among the national, state, and local governments.

Present

Marble Cake Federalism

Or "Cooperative Federalism"



Programs and authority are mixed among the national, state, and local governments.

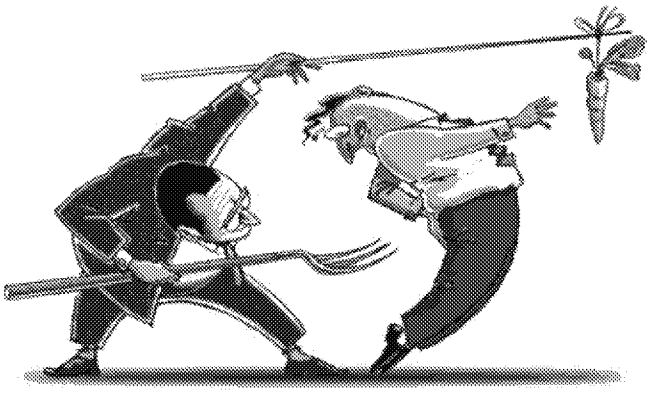
2

Cooperative Federalism in Brief

- Cooperative Federalism Pervades Modern American Government
- Cooperative Federalism and Environmental Law
- Cooperative Federalism and the Clean Air Act

3

Coercive Federalism?



4

Cooperative Federalism in the CAA: The North Dakota Experience--Background

- North Dakota
  - Second largest crude oil producer in the nation
  - Ranks second after Texas in crude oil reserves
  - Production is focused in the Bakken formation in western North Dakota in the Williston basin, area of several hundred thousand square miles.
  - The Williston Basin has an estimated seven billion barrels of crude oil reserves.
  - Between 2006 and 2015, crude oil production in North Dakota increased eleven-fold, to almost 3.4 billion barrels.

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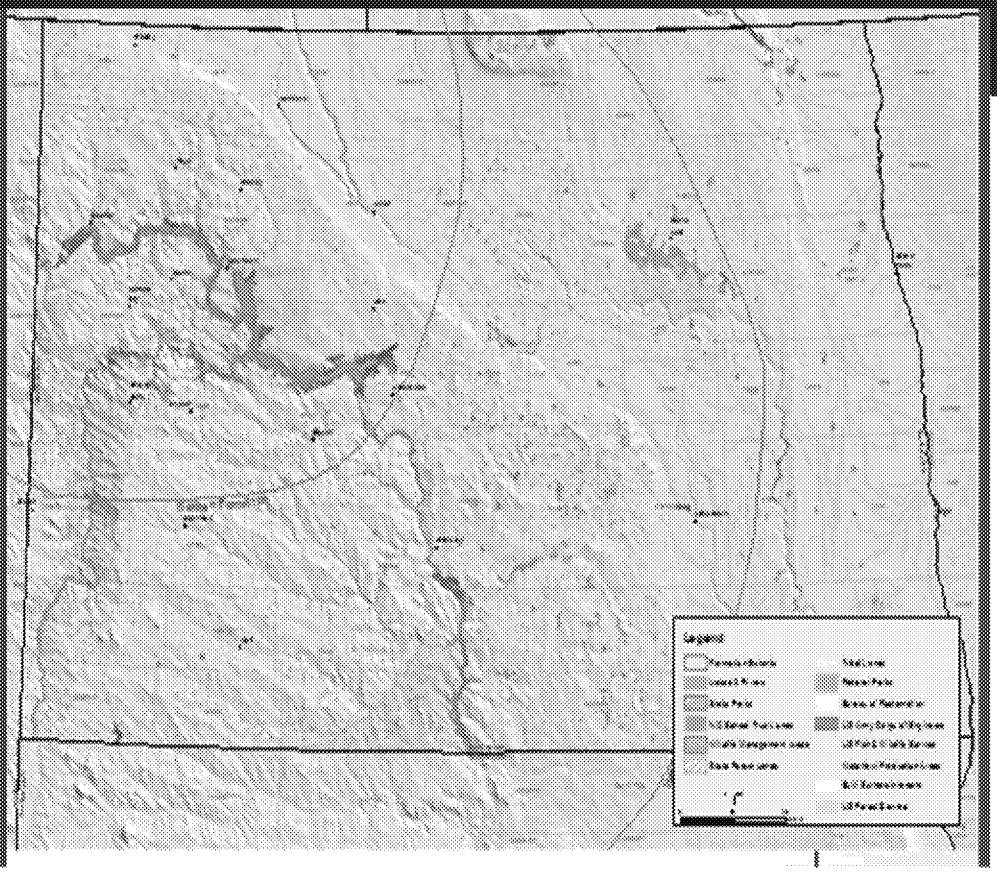
Cooperative Federalism in the CAA: The North Dakota Experience -- Background

- The Fort Berthold Indian Reservation (FBIR) is the tribal land of the Mandan, Hidatsa, and Arikara nations—known as the Three Affiliated Tribes.
- The FBIR accounts for almost one-fifth of North Dakota's daily oil production.

6

The Bakken

Approximate size of West Virginia



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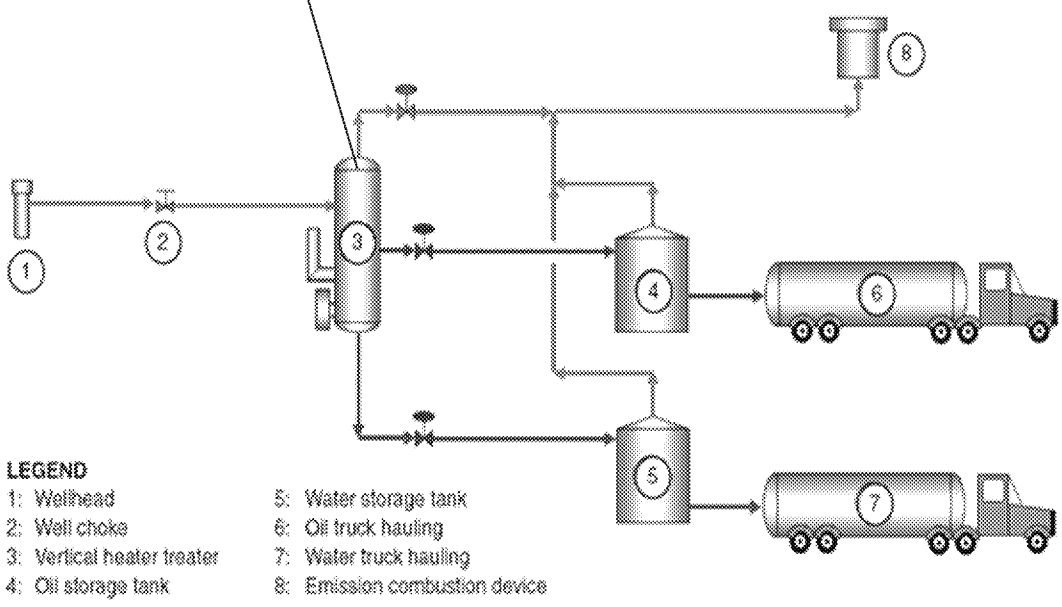
Cooperative Federalism in the CAA: The North Dakota Experience--Typical Well Pad

- Associated gas to pipeline if connection is available; otherwise to combustion device



8

Cooperative Federalism in the CAA: The North Dakota Experience--Air Quality Regulation

- North Dakota is "Attainment"
- NDAPCR § 33-15-07-02:
  - "[n]o person may cause or permit the emission of organic compounds gases and vapors, except from an emergency vapor blowdown system or emergency relief system, unless these gases and vapors are burned by flares, or an equally effective control device as approved by the department"
  - "[e]ach flare required under this section must be equipped and operated with an automatic ignitor or a continuous burning pilot"
- Source of cooperative federalism tension with EPA; how to enforce this regulation

9

Cooperative Federalism in the CAA: The North Dakota Experience--2011 Success Story for Permitting

- NDDoH: concern with well pads that may need "major source" permits where potential to emit exceeds thresholds
- "Synthetic minor" permits to limit PTE not timely available
- NDDoH /stakeholders develop the Bakken Pool Guidance
  - "provides owners and operators of Bakken Pool O&G production facilities that have the potential to emit pollutants below the major source thresholds [minor production facilities]…with an alternative to obtaining North Dakota air pollution control permits."
- NDDoH "consent agreements"
  - operators paid penalties for past alleged permit violations
  - became subject to enforceable emission limits that could be considered in calculating PTE.

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Cooperative Federalism in the CAA: The North Dakota Experience--2011 Success Story for Permitting

- FBIR: same need for timely minor source permits from EPA
- EPA Consent Agreements-create enforceable limits for operators
- Led to FBIR Federal Implementation Plan ("FIP")
- North Dakota and EPA resolved through cooperative federalism

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Cooperative Federalism in the CAA: The North Dakota Experience—The Oil and Gas National Enforcement Initiative Arrives

- National Enforcement Initiatives (NEIs)
  - The Obama Administration EPA added the oil and gas sector to its NEI in 2011 and within one year increased the number of inspections from 361 to 870.
  - As part of the energy extraction NEI, EPA issued a "Compliance Alert" in September 2015.
  - Identified Clean Air Act compliance concerns regarding significant emissions from storage vessels" at upstream and midstream facilities.

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EPA United States Environmental Protection Agency

Office of Enforcement and Compliance Assurance

Compliance Alert

September 2015

EPA Observes Air Emissions from Controlled Storage Vessels at Onshore Oil and Natural Gas Production Facilities

Purpose

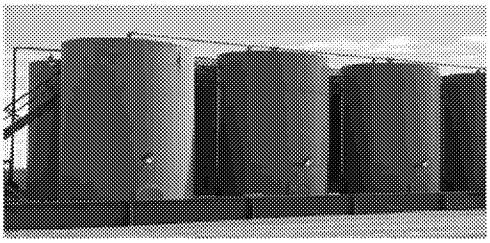
The U.S. Environmental Protection Agency (EPA) is publishing this Compliance Alert because EPA and state investigations have identified Clean Air Act compliance concerns regarding significant emissions from storage vessels, such as tanks or containers, at onshore oil and natural gas production facilities. The Alert discusses certain engineering and maintenance practices causing the compliance concerns and potential emissions-reducing solutions. While this Alert provides information intended to help operators and state regulators identify and address compliance concerns, the Alert's engineering and maintenance practices do not equate to or guarantee compliance with federal and state regulations.

Compliance Concerns

This Alert aims to help operators assess whether their vapor control systems are properly designed, sized, operated, and maintained such that emissions from storage vessels may be controlled in compliance with applicable federal and state regulations. For purposes of this Alert, a

EPA and state inspectors have observed

and natural gas is extracted from sub-surface formations through a wellhead and then flows into a separator at varying pressures. The separator divides material from the wellhead into various constituents, such as oil, water, hydrocarbon liquids and natural gas or comingled



Storage vessels at an oil and gas production facility.

liquids and natural gas, depending on the characteristics of the well. The separator has a valve that opens to "dump" the pressurized liquid into a storage vessel. While some storage vessels are designed to operate at pressures greater than atmospheric pressure, most storage vessels currently used for oil and natural gas production are at-

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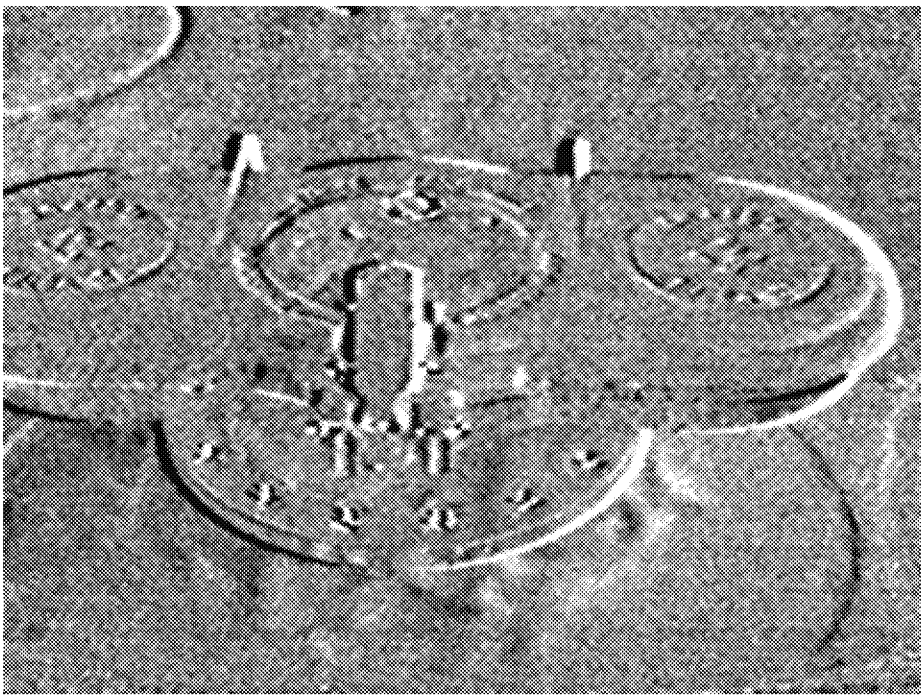
Thief Hatch - Before



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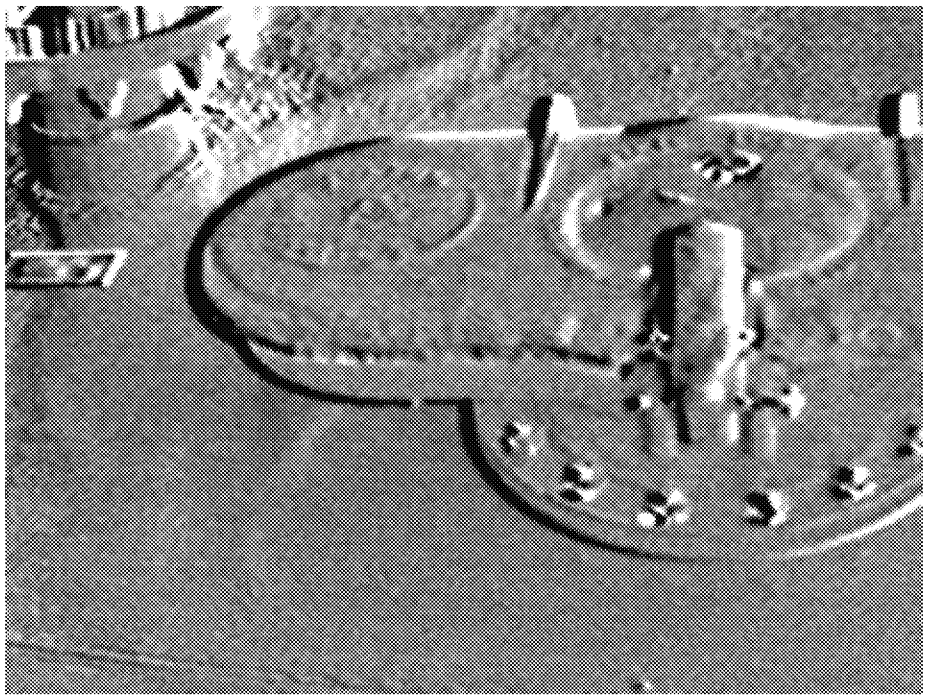
Thief Hatch - After



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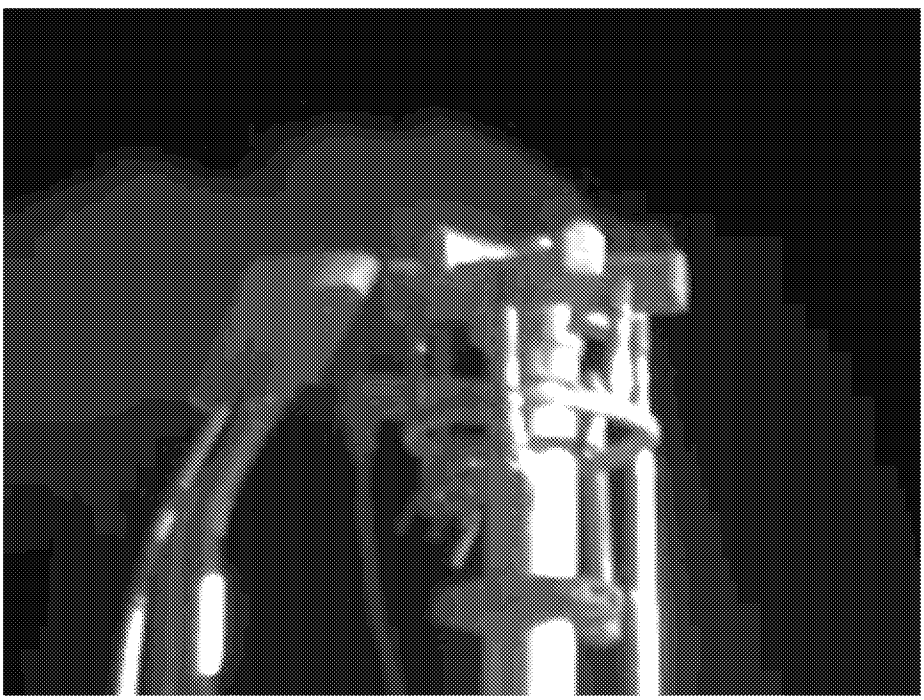

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Cooperative Federalism in the CAA: The North Dakota Experience - - The EPA/DOJ Noble Energy Settlement Template

- In 2015, EPA reached a landmark settlement under the energy extraction enforcement initiative with Noble Energy, Inc.

- EPA and Colorado alleged that Noble's operation of various facilities violated a regulation in Colorado's SIP providing that:
  - "all condensate…[storage]…shall be designed, operated, and maintained so as to minimize leakage of VOC's…to the maximum extent practicable"
  - "all air pollution equipment shall be adequately designed and sized…to handle reasonably foreseeable fluctuations in emissions of [VOC's]. Fluctuations in emissions that occur when the separator dumps into the tank are reasonably foreseeable."

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Cooperative Federalism in the CAA: The North Dakota Experience - - The EPA/DOJ Noble Energy Settlement Template

- Consent Decree (penalty, injunction, "mitigation projects")
- Is vapor control system adequately designed to handle Potential Peak Instantaneous Vapor Flow Rate?
  - Develop Engineering Design Standards
  - Apply Model
  - Make modifications to system
  - Verify (IR Camera) and act if "reliable information" (possibly shut-in well)
  - Third Party Audit
  - Inspection/Preventative Maintenance Program
  - Semi-annual IR camera inspections
  - Requirement for electronic pressure monitors
  - Root cause analyses
  - Certification of completion reports

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Cooperative Federalism in the CAA: The North Dakota Experience - - The Energy Extraction Enforcement Initiative Reaches North Dakota

- EPA Section114 Requests to North Dakota operators:
  - provide voluminous technical information about vapor control systems
  - calculate peak flow of the vapors associated with the movement of oil and produced water to the storage tanks– adequately designed?
  - provide pre-construction design analysis.
- EPA/DOJ Favored Noble Consent Decree Template to Resolve
- NDDoH and the upstream industry
  - favored a cooperative approach to resolving the issues in the Compliance Alert, in lieu of 114 requests and federal consent decrees
  - led by NDDoH but with EPA's involvement and concurrence

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Cooperative Federalism in the CAA: The North Dakota Experience - - NDDoH Pushes for State-Led Resolution

- State-led approach justified because:
  - CAA gives states the lead
  - unique characteristics of the Bakken play
  - the complexities of regulating upstream well pad facilities (the minor source permit)
  - the fact that North Dakota is attainment for criteria pollutants
  - North Dakota's policy of emphasizing practical compliance that achieves emissions reductions, as opposed to heavy reliance on large penalties.
- North Dakota also had a successful track record with a state-wide industry solution in 2011 which resulted in the Bakken Pool Guidance.

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Cooperative Federalism in the CAA: The North Dakota Experience - - Bakken Upstream Industry Task Force to Resolve Venting Issues

- 127 individuals from 30 competing companies
- Account for ~95% of production and 93% of producing wells in the Bakken
- BUATF structure – 4 subcommittees
- The BUATF essentially continued the work of the VOC Task Force that resulted in the cooperatively negotiated Bakken Pool Guidance in 2011

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Cooperative Federalism in the CAA: The North Dakota Experience - - Bakken Upstream Industry Task Force to Resolve Venting Issues

- Built on voluntary efforts already under way
  - Many operators are actively raising thief hatch set points
  - Enhanced gasket maintenance programs
  - Increased onsite operator awareness of proper operating conditions
  - Use of optical gas imaging (OGI) equipment such as FLIR cameras
  - Enhanced routine observation practices
  - Heightened alert to 3rd party contractors regarding the importance of properly closing & latching thief hatches

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Cooperative Federalism in the CAA: The North Dakota Experience – NDDoH Was Increasing Enforcement

- NDDH FORMAL ENFORCEMENT CASES: AIR QUALITY PERMITTING AND COMPLIANCE

	TOTAL CASES	PENALTIES COLLECTED
2007 TOTAL	4	$41,700
2008 TOTAL	4	$57,000
2009 TOTAL	1	$0
2010 TOTAL	2	$118,681
2011 TOTAL	2	$119,927
2012 TOTAL	9	$87,113
2013 TOTAL	37	$2,259,400
2014 TOTAL	16	$785,400
2015 TOTAL	10	$274,000
2016 TOTAL	14	$293,000
2017 TOTAL	23	$3,145,175

Includes Notices of Violations but not Letters of Apparent Non-Compliance.

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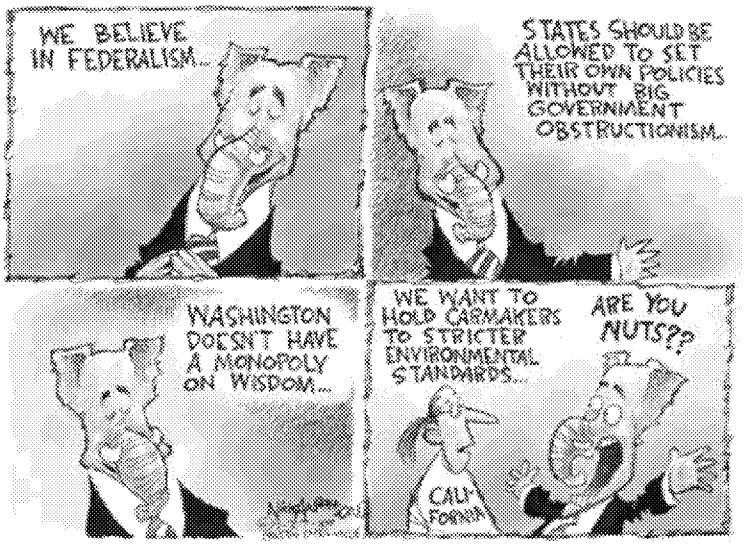
Cooperative Federalism in the CAA: The North Dakota Experience - - State-Operator Settlements

- Creation of industry sub-committees to study various technical issues, such as inspections and design, resulting in a draft technical guidance

- In mid-2016, concepts in the draft guidance eventually were translated into relatively uniform compliance elements of settlement agreements
  - initial inspections.
  - initial repairs
  - penalty reduction for quicker repair
  - stipulated penalties incurred for every facility at which initial repairs not completed within set time-frame months
  - design analysis may be required if repair time-frames not met
  - civil penalties

Settlements

- EPA withdrew from the process. Risk of overfiling
- Settlements to Date
  - Total Active Bakken Wells: 10,889
  - Percentage of wells covered under agreements: 71.11%
  - Number of operators under agreements: 21


WE BELIEVE IN FEDERALISM...
STATES SHOULD BE ALLOWED TO SET THEIR OWN POLICIES WITHOUT BIG GOVERNMENT OBSTRUCTIONISM...
WASHINGTON DOESN'T HAVE A MONOPOLY ON WISDOM...
WE WANT TO HOLD CARMAKERS TO STRICTER ENVIRONMENTAL STANDARDS...
ARE YOU NUTS??
CALI FORNIA

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Questions?

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Complying with the Clean Air Act in Indian Country

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Paper 14

Developing a Sustainable, Diverse Air Quality Program in Indian Country

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Durango, CO

Paper 14A

December 11, 2017

Developing a Sustainable, Diverse Air Quality Program in Indian Country

I. History – Pathway to establishing an Air Quality Program on the Southern Ute Indian Reservation

a. May 21, 1984 Public Law 98-290. The Act 1.) Confirmed the boundaries of the Southern Ute Indian Reservation (Reservation) and confirmed the Indian Country Status of all lands located within the Reservation boundaries, 2.) established that what jurisdiction the Tribe has over non-Indians is limited to non-Indian activity on trust lands

b. Clean Air Act Amendments of 1990. Section 301(d) directs EPA to treat Indian Tribes as States for the purposes of air quality programs within the exterior boundaries of the reservation or other areas within the tribe's jurisdiction. EPA interprets the exterior boundaries of the reservation or other areas within the tribe's jurisdiction to mean Indian Country.

c. February 12, 1998 Tribal Authority Rule (TAR). Set forth the criteria federally recognized Tribes must meet for treatment in a manner similar to a State for the purposes of primacy in the development and implementation of air quality programs under the Clean Air Act.

d. July 21, 1998. The Tribe submitted an application for Treatment as a State Application to EPA

1. Specific for receiving grant funds to begin an ambient air monitoring under Clean Air Act section 105.
2. For recognition as an "affected state" for the purpose of review and commenting on draft EPA permits.
3. Tribe asserted in this TAS that for the purposes of the Clean Air Act it has jurisdiction to regulate all sources of air pollution within the exterior boundaries of the reservation.

e. The State of Colorado, in comments to EPA on the 1998 TAS application, opposed the Tribe's assertion of Clean Air Act jurisdictional authority to regulate non-Indian owned sources of air emissions located on fee land within the Reservation. State did not dispute the Tribe's claim of CAA jurisdictional authority over sources of air pollution located on trust lands and Indian-owned sources located on fee lands within the Reservation.

f. December 13, 1999. Intergovernmental Agreement between Southern Ute Indian Tribe and the State of Colorado (IGA)

1. Collaborative agreement seeking to resolve the jurisdictional dispute between the State of Colorado and the Southern Ute Indian Tribe.

The views expressed in this paper are solely those of the author (or authors).
Please cite as: Mark A. Hutson, "Developing a Sustainable, Diverse Air Quality Program in Indian Country," *Air Quality Issues Affecting Oil, Gas, and Mining Development and Operations* 14A-1 (Rocky Mt. Min. L. Fdn. 2018).

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2. Both the State and the Tribe put aside jurisdictional disagreements on the regulation of air sources and came to an agreement that it was in the interest of the Tribe and residents within the Reservation for the State and Tribe to develop a comprehensive air quality program applicable to all lands within the boundaries of the Reservation.
3. The IGA called for the creation of an Environmental Commission, made up of six members with equal representation from the Tribe and the State, to oversee a comprehensive Reservation Air Program implemented by the Tribe's government.
4. The IGA set out a plan for implementation of the Reservation Air Program and called for the Tribe and State to enact certain regulations and/or resolutions to implement the IGA and establish the Commission and federal legislation to support the IGA.
   a. Tribal Resolution - January 18, 2000
   b. CRS Statute – March 15, 2000
   c. Federal legislation - October 18, 2004 Public Law 108-336. Southern Ute and Colorado Intergovernmental Agreement Implementation Act of 2004.

g. January 14, 2009 Tribe submitted a second TAS application for the purpose of seeking full delegation of the 40 CFR Part 70 Title V Operating Permit Program from EPA.
h. March 2, 2012. EPA delegates authority to Tribe to implement a Title V Operating Permit program applicable to all sources subject to the program within the exterior boundaries of the Reservation. The Tribe became the first, and to date only, federally recognized Tribe to receive full delegation of a 40 CFR Part 70 Title V Operating Permit program.

II. Considerations when starting a Reservation Air Program

a. Jurisdiction –
   1. Do you have governmental cooperation? Requires high levels of cooperation between Tribal, State and Federal governments.
   2. Do you have the time and resources? Resolution of issues can take years to resolve. For the Southern Ute Tribe it was over a twelve year process.
   3. How broad would the scope of a program encompass? Would jurisdiction apply only to Tribal trust lands or all lands within the exterior boundaries of the Reservation (checkerboard)?
b. Support –
   1. Is their support from the State and Federal government and most importantly the affected industry for a Tribal Air Program?
   2. Benefits to industry from having a local presence for permitting aspects is always recognized by industry but non-tribal industry often expresses concern about being regulated by a Tribal Government.
c. Full Delegation vs. Delegation of Authority to Administer CAA –

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1. Shortest most economical route is to seek EPA delegation of authority to administer certain CAA programs.
2. Example – Navajo Nation 2004 delegation to Administer 40 CFR Part 71, Federal Title V Operating Permit Program.

d. Scope of Clean Air Act Programs –
   1. When you consider the scope of all Clean Air Act Programs, some require more financial and technical resources than others to implement.
   2. For Example – A Title V Operating Permit Program requires less "technical skills" (incorporating applicable requirements) and provides reasonably stable emission fee revenue, while a Minor Source Program can involve evaluating emissions with respect to the NAAQS and/or short-term health impacts and reviewing modeling results, determining emission rate allowables and evaluating control technology with no real stable mechanism for revenue.

e. Financial resources –
   1. Considerable financial resources are necessary to get a program going before EPAS grant funds may become available. Costs are incurred before a Tribe can get TAS from EPA to implement a Clean Air Act 103 or 105 program.
   2. EPA grant funding is never a secure way to create a sustainable reservation air program. Depending on political climate, EPA grant awards may vary, can you sustain a program during periods of diminishing grant awards?
   3. Are there enough regulated emission sources within the Reservation to make a full program viable?
      1. Minor source programs – while these sources can be numerous, charging fees for permitting will generally not sustain a full program.
      2. Title V Operating Permit program – You need more than one source. Several of these larger sources can potentially sustain a program, however, be prepared for economic swings and the possibility a source might syn-minor, or get enforceable emission limitations to "fall out" of the program.
   4. If a Title V Program is fully delegated, the emission fee structure will have to be adjusted. Currently, the Part 71 fee rate is $50/ton. This rate will need to be evaluated. The Tribe emission fee rate is $140/ton and was approved to increase through the Commission. Emission fees from the Title V Program can only be used to fund the program, not for Minor Source.
   5. If a Title V Program is fully delegated, it must be considered that:
      1. A Program cannot charge emission fees until a the permit is issued (transitioned from Part 71 to Part 70)
      2. Depending on when a permit is issued, it may take months to years before full fees come in. Emission fees are due in April of each year for the previous calendar year.

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f. Regulatory infrastructure
    1. For fully delegated programs, will there be an overseeing body to ensure parity in permit provisions, representation, or appeals between tribal and non-tribal sources?
    2. For fully delegated programs, is there an existing framework in place for codification of regulatory requirements such as an environmental code?
g. Technical Infrastructure
    1. Can you hire, train and retain technically qualified staff? Managers, Permit Writers, Inspectors, Enforcement Coordinator
    2. EPA assists in the transition, however, their resources and time are limited. Tribe will need to hire an experienced employee who can get the program going.
    3. On-going technical training is a necessity for any advanced air permitting, compliance, and enforcement.
h. Operating Procedures, Protocols and Guidance Document Infrastructure
    1. Understand any air program that regulates Tribal and non-Tribal needs to operate and follow an established set of policies and guidelines to ensure parity.
    2. Includes Permitting procedures instructions and SOPs, Inspector guidance manuals, and most importantly a written policy on how an alleged violation is identified and resolved, including procedures for assessing a penalty.

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Complying with the CAA in Indian Country

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Paper 14B

Summary

From industry counsel perspective, there are currently three dynamic areas of discussion regarding compliance with the Clean Air Act ("CAA") for operations in Indian country

(1) the importance of jurisdiction - how it relates to permitting and other requirements, permit appeals, interpretation of regulations, and enforcement.
(2) the complexity of jurisdictional determinations; and
(3) the tangled relationship of NSPS, permits, and FIPs.

I. Jurisdiction Matters

A fundamental question for complying with air regulations is which government entity has jurisdiction: state, federal or tribal. State and tribal jurisdictions do not overlap; a source is either on state land or on tribal land, with rare exceptions. Jurisdiction is based on the physical location of the source on the land; it is not based on where the air emissions travel. Although the "air shed" of an area can include both state and tribal lands – the air emissions from a source impacts the air quality of state and of tribal lands – a source is usually only located on state or tribal land, not both. Federal lands – such as national parks – are subject to the air permitting jurisdiction of the state.[1] Federal air regulations do not apply by themselves on federal lands; state regulations apply on federal lands; the federal government is an owner of lands under state jurisdiction. On tribal lands, federal regulations apply in the absence of approved tribal regulations or are incorporated by tribal regulations – just like a state.

Which authorities have jurisdiction matters in several important ways for permitting and for enforcement of air regulations. For permitting, the differences relate to: (1) who issues the permit and the permit content preferences of the permit authority; (2) the appeals process for permit decisions; (3) what additional separate procedures or regulations apply; and (4) what guidance or interpretations of the applicable regulations might apply. For enforcement, the differences relate to: (1) who is the primary enforcer; (2) whether the applicable regulations can be enforced by citizens under the CAA; and (3) what other federal agencies might weigh in on issues. These differences, discussed further below, might be important when evaluating investment or operational options.

A. Permitting

The permitting background of Summit Petroleum's facilities in Michigan (leading up to the 6th Circuit decision in *Summit Petroleum v. EPA*[2]) began with the state of Michigan requesting guidance from EPA about how to permit the sources – whether to aggregate the oil and gas wells. Aggregation of the emissions from all the wells under ownership or control of

[1] A review of SIPs in 40 CFR Part 52 makes it clear that the only geographical exceptions to the application of the SIP within the state, consistent across all states, are emissions sources located in Indian country or Indian reservations.
[2] *Summit Petroleum Corp. v. EPA*, 690 F.3d 733 (6th Cir. 2012)

The views expressed in this paper are solely those of the author (or authors).
Please cite as: Clara Poffenberger, "Complying with the CAA in Indian Country," *Air Quality Issues Affecting Oil, Gas, and Mining Development and Operations* 14B-1 (Rocky Mt. Min. L. Fdn. 2018).

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Summit Petroleum in that area would make the facility a major source. Grouping only some of the emission sources together would mean the facilities would be minor. More than two years after Michigan first requested EPA guidance for the Summit Petroleum permit(s), EPA issued a letter asserting jurisdiction because the sources were on Indian land. After another two years, EPA issued its source aggregation determination. Summit Petroleum then appealed the aggregation determination directly to the federal Court of Appeals and obtained a decision two year later.

This is an interesting example that highlights a few differences between permitting under state jurisdiction and permitting under federal jurisdiction. Federal permits often take more time than state permitting.[3] One reason is the permit appeals process through the U.S. Environmental Appeals Board. But another reason for delay and a difference in permitting is that federal permits must follow national policy and can often involve controversial issues where the permit authority considers the precedent that must be followed or might be set by permit decisions. Another difference between the permitting jurisdictions is that the appeals process for final agency actions by EPA under the CAA is to the federal Court of Appeals; although appeals of final permits under PSD or title V must first go to the U.S. Environmental Appeals Board.

Other differences between permitting authorities relate to permit content preferences but this varies among EPA regions and states. A federal permit could contain as much or as little content as a state permit, it depends on which EPA region and which state are compared.

i. Permit Appeals

Permits issued by EPA or by the state or the tribe under a delegation of authority are subject to the federal permit appeals process in 40 CFR §124.19 and if appealed, are appealed to the U.S. EPA Environmental Appeals Board ("EAB"). Appeals to the EAB involve briefing and an opportunity for a hearing; it is like litigation. Appeals to EAB for air permits involve significant delay. In addition, the permit can be appealed by anyone who commented on the permit and on the basis of such comments. Once appealed the permit is stayed and no action can proceed in reliance on the permit. By contrast, each state with an approved permit program has its own permit appeals process; each vary by timing and who can appeal but almost all state appeals processes take far less time than the EAB appeals process. Some states allow a permit appeal to proceed without staying the permit and some states allow some limited construction to proceed while the permit appeal process proceeds. Where states stay the permit pending appeal, usually the permit appeal process is not lengthy.[4]

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[3] To address the concern over timing, EPA issued guidance for processing PSD permits within the year required by the statute. Note, however, that the time for the year does not start until the permit application is complete and EPA provides specific guidance for making completeness determinations. EPA Memorandum from Stephen Page, Director, OAQPS to Regional Air Division Directors, "Timely Processing of Prevention of Significant Deterioration (PSD) Permits when EPA or a PSD-Delegated Agency Issues the Permit (October 15, 2012).

[4] "*At Risk Permitting for Environmental Permits*" by Clara Poffenberger Environmental Law and Policy, September 2014. Appendix

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From a different perspective, petitions for review to challenge regulatory applicability determinations, including jurisdiction issues or aggregation issues, may be filed directly with the federal Court of Appeals where the facility resides. Although this entails more delay to obtain a resolution, in the case of Summit Petroleum, the court addressed the dispute faster than EPA had taken to issue a determination.[5] By contrast, applicability determinations by states, sometimes with guidance and pressure from EPA, are not directly appealable to the federal courts of appeals. The appeals process of the state is the first place to challenge a determination. A permit applicant cannot challenge the determination until the state or the agency has taken final agency action and usually that final agency action is not until the permit is issued or denied. States rarely put in writing a final determination separate from the permitting process and EPA input on the permit process is through comments and permit objections; neither can be appealed directly to courts. In sum, the oil and gas industry would not likely have its own "source determination" rule, issued in 2016, if a question of source aggregation had not arisen on Indian lands, where the determination could be appealed directly to federal court.

Source Aggregation and the Source Determination

EPA's final determination for Summit Petroleum was that emissions from all the wells must be aggregated because they were functionally related or dependent. The 6th Circuit rejected EPA's rationale for aggregating the emission sources. EPA issued a directive that the court decision would only apply within the jurisdiction of the 6th Circuit; industry successfully challenged that directive. In response to the challenge, EPA issued a rule allowing EPA to limit the effect of circuit court decisions – the Regional Consistency rule. EPA issued a source determination rule changing the permit rules related to what oil and gas emission sources must be included together for determining major source status – the Oil and Gas Source Determination Rule. This rule change applies only to oil and gas sources. At the same time, industry continues efforts to have the effect of the 6th Circuit court decision apply nationwide. This is the Regional Consistency litigation.

ii. Additional Regulations

Whether the source is located on state or tribal land, there will be different additional regulations. Obviously, state regulations – both those included in state implementation plans ("SIPs") and those that are not – apply to sources subject to state jurisdiction. The same applies for tribal regulations; a source located on tribal land might be subject to regulations issued by the Tribe – some might be in a tribal implementation plan ("TIP"). The issuance of a permit by EPA is a federal action that triggers other requirements[6] including the Endangered Species Act

[5] Summit Petroleum filed its legal challenge in 2009 but sought an abeyance until October 2010 to allow EPA to consider additional information. The court issued its decision in August 2012.

[6] EPA Memorandum from Stephen Page, Director, OAQPS to Regional Air Division Directors, "Timely Processing of Prevention of Significant Deterioration (PSD) Permits when EPA or a PSD-Delegated Agency Issues the Permit (October 15, 2012).

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("ESA") consultation requirements[7] and the requirements of the National Historic Preservation Act ("NHPA")[8]. For areas that are nonattainment, the general conformity provisions of the CAA apply to federal actions.

> **General Conformity** is a statutory provision that applies to federal actions in newly designated nonattainment areas. General Conformity ensures that the actions taken by federal agencies do not interfere with a state's plans to attain and maintain national standards for air quality. CAA section 176(c)(4). Because it applies to federal actions, federal agencies, not just EPA, must work with state, tribal and local governments in a nonattainment or maintenance area to ensure that federal actions conform to the air quality plans established in the applicable state or tribal implementation plan. 40 CFR Part 93 Subpart A.

For states that have developed their own regulations and have SIP-approved permit programs, issuing a permit will not trigger the federal action provisions of ESA, NHPA and General Conformity nor should permits issued by Tribes that adopt their own regulations and are approved to issue permits under their own authority.[9] Sources locating on federal lands that are not tribal lands usually are subject in some way to ESA, NHPA, and General Conformity because of another federal agency action, not because of an EPA permit.

iii. Interpretations of rules

All the federal air regulations come with years, if not decades, of guidance and interpretations. Thus, when EPA is the permit authority, even where EPA has delegated the authority, EPA guidance applies to applicability and permitting decisions. Significant decisions over the scope of the source or the scope of the modification as well as how to apply the

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[7] Under Section 7(a)(2) of the ESA, 16 U.S.C. § 1536(a)(2), the EPA must ensure that any action authorized, funded, or carried out by the EPA is not likely to jeopardize the continued existence of any federally listed

> **Regional Consistency in EPA Guidance**
>
> Arising from the Summit Petroleum decision is the ongoing controversy over how EPA continues to apply EPA guidance after an adverse court decision. Following the court decision in Summit Petroleum, EPA issued a directive to all EPA regions directing the regions to continue to apply EPA's "long-standing" policy related to source aggregation in all states not within the jurisdiction of the 6th Circuit Court of Appeals. Industry successfully challenged EPA's directive in federal court; the court vacated the directive and directed EPA to comply with its own regional consistency regulations or revise the regulation. EPA revised the Regional Consistency regulations in 2016. Industry has challenged the rule revisions.
>
> EPA's Regional Consistency rule revision allows EPA to limit the effect of adverse court decisions to the states located in the particular circuit and limits the degree to which EPA Regions must seek input from EPA headquarters in order to comply with such adverse court decisions applicable within the EPA region.

[9] Should no longer be treated as a federal action.

permitting requirements would be based on EPA directives or guidance in effect at the time of permitting.

By contrast, states and tribes with their own regulations approved by EPA have discretion over the application of the regulations and the interpretation of their regulations. Courts have held that States have deference over interpretation of state rules; not EPA.[10] EPA guidance need not apply to state or tribal determinations, particularly where there is controversy, inconsistency, and ambiguity of the rules or guidance. Of course, in reality, state permitting agencies often, but not always, acquiesce to EPA's comments, suggestions or objections on state permits or applicability determinations.

In other cases, including litigation over EPA disapproval of the Texas and Oklahoma Regional Haze rules, EPA emphasizes the importance of national consistency while also arguing against any obligation to ensure uniformity in approving or disapproving different state regional haze programs.[11] EPA acknowledges that decisions in states and within EPA regions vary; yet EPA fails to acknowledge in its Regional Consistency rules that much of EPA's guidance on permit issues are not exactly uniform and clear. An example of this is EPA's representation of the source aggregation policy as "long-standing." Analysis of the issue shows that there was a wide range of decisions related to aggregation made by states and EPA and there was a significant amount of uncertainty. Missing in the discussion over regional consistency is the fact that states with approved programs need not acquiesce to EPA's interpretation of the rules where the states have a basis for a different interpretation; that is, until EPA mentions it in the context of changes to the rules for oil and gas sources.

EPA has attempted to eliminate the uncertainty in making source determinations for oil and gas sources but has allowed states the option, consistent with the Clean Air Act, to set and interpret their own rules and not follow the source determination rule revision. In other words, EPA acknowledges that states are not bound by the federal court decisions interpreting federal rules and can refuse to give weight to proximity and can continue to apply the "functional dependence or relatedness" factor to determine what emissions sources belong together for oil and gas sources.

The federal rule revision for source determinations is applicable only to oil and gas operations;[12]EPA has retained the functional dependence or relatedness factor for all other

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[10] See Texas v. EPA "Although the EPA's concern over the potential for Major NSR evasion involves the Agency's interpretation of a law, it does not involve the interpretation of a federal law. Before approval by the EPA, a SIP revision is state law for which the EPA's interpretation is not authoritative. Luminant Generation Co., LLC v. EPA, 2012 WL 3065315, at *14 (5th Cir. July 30, 2012) (citing American Cyanamid, 810 F.2d at 493). We need not, therefore, accept that Major NSR evasion is probable based solely on deference to the EPA's interpretation of the Texas law that forms the basis of this petition. Texas v. EPA (August 13, 2012); Also see Alaska Department of Environmental Conservation v. EPA, 540 U.S. 461 (2004)

[11] State of Texas et. al. v. EPA, No. 16-60118, 5th Cir (July 15, 2016)

[12] Oil and gas operations are those in major SIC group 13: Major Group 13: Oil And Gas Extraction
This major group includes establishments primarily engaged in: (1) producing crude petroleum and natural gas; (21 extracting oil from oil sands and oil shale; (3) producing natural gasoline and cycle condensate; and (4) producing gas and hydrocarbon liquids from coal at the mine site. Types of activities included are exploration, drilling, oil and gas well operation and maintenance, the operation of natural gasoline and cycle plants, and the gasification,

industry categories. Yet, if EPA allows states to differ from what is now in the national regulations, either through their specific rule language or by interpretation, then EPA shouldn't deny states the discretion to apply the proximity-based approach for all other industry categories. An analysis of state permit decisions would reveal far more variety in state decisions related to the scope of a source than EPA represents in court briefings. To the extent that states choose to give weight to "proximity" for making source determinations and have chosen to reject or downplay "functional dependence," a state should retain the discretion to do so for all source categories.

As for the Regional Consistency rule, since the majority of state permit programs are SIP-approved, there are only a few states[13] where any national policy can be affected by a court decision independent of state involvement. By comparison, nearly all Indian lands are under EPA's direct jurisdiction and thus, will be subject to EPA's "national policy" and any court decisions related to such national policy without any intervening discretionary authority. How the Regional Consistency rule survives or is revised after the court challenge will be relevant for Indian lands.

B. Enforcement

Although EPA maintains enforcement authority over all federally-approved air regulations, the primary enforcement role rests with the State or the Tribe. EPA does not usually overfile – take enforcement action – where a State or Tribe is pursuing enforcement. In exceptional cases, where EPA determines that the circumstances require federal attention or where they consider State or Tribal enforcement inadequate, EPA might initiate enforcement. For Indian lands, EPA is the primary enforcer for federal air regulations where the Tribal enforcement authorities are not yet adequate or approved for enforcing the federal regulations.

Note, however, that EPA has determined that the circumstances of the extractive industry – oil and gas and particularly shale gas development – requires federal attention.[14] Even when the federal government initiates enforcement, there is a difference between being under state

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liquefaction, and pyrolysis of coal at the mine site. This major group also includes such basic activities as emulsion breaking and desilting of crude petroleum in the preparation of oil and gas customarily done at the field site. Pipeline transportation of petroleum, gasoline, and other petroleum products (except crude petroleum field gathering lines) is classified in Transportation and Public Utilities, Major Group 46, and of natural gas in Major Group 49. Establishments primarily engaged in petroleum refining and in the production of lubricating oils and greases are classified in Manufacturing, Major Group 29.

[13] As of the date of this paper, states that are delegated to issue EPA permits or where EPA issues permits include: Hawaii, Nevada, some districts in California, some districts in Arizona, Massachusetts, Illinois, New Jersey, and Washington. EPA is also the permit authority for sources on the outer continental shelf outside state jurisdiction. EPA is the permit authority and may delegate the authority for sources in Puerto Rico, Guam and the U.S. Virgin Islands. Note that in 2017 Illinois is in the process of developing a state PSD program for approval by EPA into the SIP. http://www.epa.illinois.gov/topics/air-quality/psd-rulemaking/index

[14] National Enforcement Initiatives and September 2015 Compliance Alert " EPA Observes Air Emissions from Controlled Storage Vessels at Onshore Oil and Natural Gas Production Facilities" https://www.epa.gov/enforcement/national-enforcement-initiative-ensuring-energy-extraction-activities-comply; https://www.epa.gov/sites/production/files/2015-09/documents/oilgascompliancealert.pdf

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jurisdiction and being in Indian country under federal jurisdiction. The enforcement cases against Slawson[15] and against PDC[16] are interesting examples that show some differences.

Slawson Exploration Company owns oil and gas wells in North Dakota on both state land and in the Fort Berthold Reservation. EPA and Slawson entered a consent decree in December 2016 to resolve alleged violations of the North Dakota SIP and the Fort Berthold FIP. Slawson does not admit violations and reports that the settlement was over different interpretations of the regulations. The enforcement action began with EPA inspections using optical gas imaging infrared cameras and involved 41 of Slawson's well pads.

PDC entered a consent decree with EPA and the state of Colorado in October 2017 covering 650 tank batteries. The action arose from state inspections over nearly two years using optical gas imaging infrared cameras and other emissions tools. Both cases resulted in federal consent decrees that are made available for public comment and entered into federal court. The state of Colorado was an active participant in the PDC action; the state of North Dakota does not appear to have participated in the Slawson action.

Although the penalties were not much different, $2.1 million and $2.5 million, the injunctive relief ($2 million vs $19.7 million) differs substantially but probably only because of the difference in the number of emissions sources involved. However, Colorado will share half of the penalty paid by PDC. North Dakota does not get any portion of the penalty from Slawson nor does Fort Berthold or any of the tribes on Fort Berthold.

Noteworthy is PDC's use of the audit policies – both the federal audit policy and the state audit policy[17]. Under the Colorado Environmental Audit Privilege and Immunity Law, all state civil and administrative penalties for violations of state environmental laws may be waived if such violations are voluntarily disclosed as the result of a self-audit. The law also provides that information gathered as a result of this audit may be privileged, or protected from certain uses adverse to the disclosing entity. The federal policy on voluntary disclosure is more limited. Although, in the case of PDC, neither EPA nor Colorado believed that the PDC violations fell under either the state or federal audit policies, the differences in the policies would present an

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[15] United States of America v. Slawson Exploration Company, Inc. U.S. Case 1:16-cv-00413-CSM, U.S. District Court for the District of North Dakota (December 1, 2016); https://www.epa.gov/enforcement/consent-decree-slawson-exploration-inc-clean-air-act-caa-settlement.

[16] United States of America, and the State of Colorado v. PDC Energy, Inc. Civil Action No. 1:17-cv-01552-MSK-MJW. U.S. District Court for The District of Colorado (October 31, 2017); https://www.epa.gov/sites/production/files/2017-10/documents/pdc-cd.pdf

[17] On November 2, 2015, PDC submitted a letter entitled "PDC Energy, Inc.'s Voluntary Self-Disclosure Pursuant to the EPA Audit Policy" to EPA and a letter entitled "Voluntary Self-Disclosure of Environmental Self-Evaluation/Discovery of Potential Noncompliance by PDC Energy, Inc." to CDPHE. Both letters identified 553 PDC well production facilities that PDC represented were potentially noncompliant with the audited regulatory requirements. PDC represented that it was continuing to gather more site-specific data and information to refine the results of the environmental audit. PDC asserted, and both EPA and CDPHE have disputed, that the letters were submitted pursuant to the requirements and criteria under the "Incentives for Self-Policing: Discovery, Disclosure, Correction and Prevention of Violations" (65 Fed. Reg. 19,618, April 11, 2000), as amended (the "EPA Audit Policy") and the Colorado Environmental Audit Privilege and Immunity Law, C.R.S. §§ 13-25126.5, 13-90-107, 25-1-114.5, and 25-1-114.6 ("Colorado Audit Law"). Page 4 of PDC consent decree.

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interesting dilemma for state and federal enforcement authorities working together under a federal enforcement action.

Facilities located on Indian land may only have the federal audit policy to rely on where circumstances are appropriate. Although all audit policies require proactive compliance actions by the company, the federal policy is far more restrictive on timing of disclosure and other limitations related to the discovery and responsive action. Sources under state jurisdiction may have more options for resolving compliance gaps before any federal enforcement begins.

C. Citizen suits

Under the CAA, citizens may bring an action in federal court to enforce CAA regulations and seek penalties for repeated or ongoing violations. The regulations that citizens may enforce include limits and conditions included in federal permits (permits issued by the states under the SIP, permits issued by Tribes under a TIP, and permits issued by EPA or by a delegated authority of EPA). Some permits include a federal section and a state-only section. Citizens cannot enforce limits in federal court that are in the state-only section. Citizens can also enforce against a source for failing to obtain a federal permit and for violations of NSPS, NESHAPs, and the SIP, FIP or TIP.[18] Thus, if a tribe develops a TIP and includes stringent requirements that go beyond the federal minimum standards, citizens may enforce those requirements regardless of how a tribe might exercise discretion related to those standards.

Since almost all permits issued in Indian country will be issued by EPA, all permit conditions included in the EPA-issued permits will be federally enforceable and available for citizens to enforce. Where a TIP incorporates all tribal regulations related to air pollution, those regulations will also be enforceable by citizens in federal court.

A recent citizen suit achieved historical record results in Texas with a $19.95 million penalty against ExxonMobil refinery and chemical plants for excess emissions arising from upsets.[19] Many are currently evaluating what precedent that case might set for future citizen suits. One issue of concern is what qualifies as "ongoing" or "repeated" violations that would serve as the basis for citizen suits. Another issue worth considering in developing TIPs, also key in the ExxonMobil case, is the definition of violation and how that relates to various types of upset conditions. This issue is not unique to Indian country, all states should consider how "unauthorized emissions" or upset emissions are treated under their SIPs. For Indian country sources, however, as long as EPA is the permit authority, all limits in the permits are enforceable by citizens.

By comparison, if a Tribe is granted permitting authority, in developing a TIP, a tribe could act as states can and develop and enforce regulations outside of the TIP but require emission sources to include those tribal standards in their permits. The permits would then have a

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[18] CAA section 304.

[19] Environment Texas Citizen Lobby, Inc.,and Sierra Club, v. Exxonmobil Corporation, Exxonmobil Chemical Company, and Exxonmobil Refining and Supply Company, Civil Action No. 4:10-Cv-4969, April 26, 2017 decision.

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federally enforceable section and a tribe-only enforceable section. Good candidates for such separate treatment of regulations include standards that are designed to challenge emissions sources to improve performance, as compared to meeting the air quality demands of an area or meeting national uniform standards, and standards that are unique to the needs of the tribe over which the tribe may want discretion on specific implementation. One candidate for such treatment is the very type of limits that resulted in the ExxonMobil record penalty – limits that apply during times of unforeseeable malfunctions and for which Texas had attempted to retain discretion related to making penalty determinations. The Texas affirmative defense approach was designed to promote responsible response to unforeseeable and unpreventable events and to allow the state to make a determination as to whether appropriate action was taken and whether the excess emissions were preventable or avoidable.

D. Other federal agency involvement

Where the source is located might determine whether other federal agencies become involved in a permitting or enforcement matter. A source that is located on federal lands in a State could be subject to BLM regulations in addition to State regulations; thus, violations of some federally approved state permit conditions could also involve BLM regulations and involve the Department of Interior ("DOI"). On the other hand, a source on Tribal land that becomes subject to enforcement might find that the DOI becomes involved for other reasons, through the Bureau of Indian Affairs, whether it is simply to comply with consultation and trust obligations or it involves questions of applicable regulations and equitable treatment.

II. Jurisdiction Determinations are Not Easy

The issue of jurisdiction has obvious disadvantages if you get it wrong. Aside from finding out that you are subject to regulations in a jurisdiction that you might have preferred to avoid given the choice and needing to start fresh with another permit authority, the failure to have appropriate permits may subject the facility to enforcement not just for failure to have the permits but also creates that risk that the source was not adequately permitted to avoid becoming subject to other CAA requirements such as an NSPS or major NSR.

There is a lot of interesting history about jurisdiction determinations, as outlined in EPA's paper. Two interesting examples are Summit Petroleum and EPA's boundary decision for the Wind River Reservation in Wyoming. The most recent chapter on that litigation is a revised decision by the 10th Circuit Federal Court of Appeals. The Wind River determination involves EPA resolving boundary questions in the context of a tribe applying for treatment as a state. The Summit Petroleum case does not involve a boundary dispute; it was error in assuming state jurisdiction made by the company and the state. My experience as air lawyer for the industry involves companies seeking to verify whether their sources are located on Indian land or on state land. Some have obtained permits from the state and subsequently found that they are actually on Indian land.

Here are some practice points:

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1. Past determinations may not be accurate; some relied on States but State permit authorities don't usually dispute a company jurisdiction determination when a permit is requested.
2. Tribal authorities who have not applied to EPA for authority to manage the air quality program might not have sufficient information to make boundary determinations.
3. Even where Tribal authorities have applied to EPA or have made some boundary determinations, those determinations may be challenged by states.
4. Obtaining expert Indian Law counsel can help reduce the uncertainties associated with property determinations; they can research the boundary documents as well as help identify any potential for boundary dispute in the future.
5. In evaluating investment options (whether to purchase assets or where to develop assets at any given time), the differences between state and Indian land CAA implementation and compliance options may weigh in favor or against particular options.

III. Tangled Relationship of NSPS, FIPs, and Permits for Oil and Gas

A. Overview

Oil and gas sources are subject to federal standards such as the NSPS and NESHAPs, to state or Tribal standards included in the SIP or TIP and some that are not, and to permit requirements. Permit requirements include state, tribal and federal new source and/or existing source permitting but also include permits or other regulations for limits to avoid federal regulations including the NSPS and major NSR. Under NSPS OOOO[20], a source can avoid being subject to the storage vessel standards by having a practically enforceable limit on the storage vessel below 6 tons per year of VOCs.[21] The limit can be in a permit or a regulation. The limit need not be in a federal permit or regulation.

When NSPS OOOO was first promulgated in September 2013 (proposed in 2011), it required sources to determine the VOC potential to emit ("PTE") for storage vessels before October 2013. Sources under state jurisdiction had several mechanisms for obtaining practically enforceable limits sufficient to avoid the NSPS requirements.[22] Sources on Tribal lands that did not have an air regulatory program did not have a mechanism to secure limits to avoid the NSPS requirement. Although on July 1, 2011, EPA had published a gap-filling FIP for major and minor NSR for sources on Indian land,[23] the process for obtaining permits to include limits to avoid the NSPS was cumbersome and uncertain; sources would not have obtained limits in time to make the determinations under NSPS OOOO. Thus, oil and gas sources in Fort Berthold sought a FIP to obtain limits that would serve that purpose (since the NSPS was proposed in

[20] 40 CFR Part 60 Subpart OOOO
[21] 40 CFR § 60.5365(e) specifies that, "the determination may take in to account requirements under a legally and practically enforceable limit in an operating permit or other requirement established under a Federal, State, local or tribal authority."
[22] Colorado guidance, Memo from Mark McMillan, Unit Supervisor, Oil and Gas Team, dated October 15, 2013, Re: Interpretation of "Practically Enforceable" Limits for Storage Vessels Addressed under NSPS OOOO
[23] Review of New Sources and Modifications in Indian Country, 76 Federal Register 38748 (July 1, 2011)

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2011, companies had notice to plan for the needed limits). The Fort Berthold FIP[24] was issued in March 2013 in time to limit VOC PTE under NSPS OOOO.

B. General Indian Land FIPs

Although there are FIPs that apply to some tribal lands or specific sources in on specific tribal lands,[25] there are only a few FIPs that apply to all Indian country: the 2011 Indian Country NSR FIP and the subsequent rules for streamlined permitting, which include general permits for specific source categories and the Oil and Gas Minor Source FIP. The 2011 Indian Country NSR FIP fills a long-existing gap in air permitting in Indian country. Prior to this NSR rule, EPA only issued permits for major new sources and major modification of existing sources for attainment pollutants. Until recently, there was no concern for permitting nonattainment pollutants in Indian country. Also absent before the 2011 rule was a mechanism for permitting minor and synthetic minor sources [26] in Indian country.

> A synthetic minor source is a source that has the ability, capacity or "potential to emit" pollution above major source thresholds but for permit conditions or limitations that prevent it from emitting at major source thresholds; it can also apply to modifications – keeping modifications minor.

Thus, the NSR FIP simply set forth the requirements for obtaining permits – for major sources, synthetic minor sources, minor sources, or modifications. For major source nonattainment, the requirements are identical to federal requirements that would apply in a state that did not have its own program. The minor source permitting requirements are a bit more rigorous than many states' minor source permit programs.

The 2011 Indian Country NSR Rule requires all sources with the potential to emit at or above minor source thresholds (as low as .1 ton per year (for lead) or 5 tons per year for volatile organic compounds ("VOCs")) to obtain a source-specific permit.[27] For most industry categories, this is far more rigorous than most states because many states have a different mechanism for regulating small emissions sources, such as general permits, standard permits or

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[24] The Federal Implementation Plan ("FIP") for Oil and Natural Gas Well Production Facilities, 40 C.F.R. Part 49, Subpart K (with respect to operations located on the Fort Berthold Indian Reservation ("FBIR")

[25] See 40 CFR Part 49.

[26] Synthetic minor source means a source that otherwise has the potential to emit regulated NSR pollutants in amounts that are at or above those for major sources in § 49.167, § 52.21 or § 71.2 of this chapter, as applicable, but that has taken a restriction so that its potential to emit is less than such amounts for major sources. Such restrictions must be enforceable as a practical matter. 40 CFR §49.152.

[27] Table 1 to 40 CFR § 49.153

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small source standards that exempt them from source-specific permits but ensures emissions are monitored and limited. Thus, EPA acknowledged in the 2011 rule that small sources could avoid source-specific permitting if EPA issued general permits to cover the source category.[28] EPA developed general permits and permits by rule for eleven industry categories.[29]

General Permits or Permits by rule for Indian country sources:

- Dispensing facilities (permit by rule)
- Auto body repair and miscellaneous surface coating operations (permit by rule)
- Petroleum dry cleaners (permit by rule)
- Stone quarrying, crushing and screening facilities (general permit)
- Hot mix asphalt plants (general permit)
- Boilers and emergency engines (general permit)
- Spark ignition engines (general permit)
- Compression ignition engines (general permit)
- Graphic arts and printing operations (general permit)
- Concrete batch plants (general permit)
- Sawmill facilities (general permit)

EPA issued a FIP, essentially a permit by rule, for oil and gas sources to reduce the number of sources that would need source-specific permits.

The Oil and Gas Minor Source FIP[30] applies to true minor sources and allows such sources to avoid source-specific permitting. It does not apply to synthetic minor sources or allow sources to become synthetic minors under the FIP; nor does it apply to any sources in nonattainment areas. Thus, the industry has requested that EPA revise the FIP to close this gap.

C. Unresolved Issues with Indian Land Permitting for Oil and Gas

[28] 40 CFR 49.156

[29] https://www.epa.gov/tribal-air/general-permits-and-permits-rule-rulemaking-indian-country-5-source-categories

[30] Federal Implementation Plan for True Minor Sources in Indian Country in the Oil and Natural Gas Production and Natural Gas Processing Segments of the Oil and Natural Gas Sector ("FIP"). 81 Fed. Reg. 35944 (June 3, 2016).

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As highlighted above, federal permitting invokes several additional substantive and procedural requirements and thus, often results in longer permitting timeframes than state permitting. Industry has been working with EPA to streamline some of these requirements to make permit review and decisions more efficient for minor sources in Indian land. The oil and gas industry has advocated that such streamlining is reasonable particularly for minor sources – regardless of whether they are true minors or synthetic minor. Thus, as described below, API's concerns are entirely related to minor sources and do not suggest eliminating or revising substantive or procedural requirements for major emission sources.

API expressed the concerns as follows:

> First, the FIP requires case-by-case review under the Endangered Species Act ("ESA") and National Historic Preservation Act ("NHPA") and, in most cases, does not allow a project to go forward until EPA gives approval of the ESA and NPHA screening. This is required, notwithstanding the fact that EPA concluded in the final rule that application of the FIP to individual sources is not a federal action that triggers ESA or NHPA review. The need for EPA approval before a project can be implemented promises to inject delay into FIP implementation that will defeat the streamlining that API and EPA collectively worked to accomplish.
>
> Second, the FIP does not allow for the creation of synthetic minor sources. EPA concluded in the final rule that sources needing synthetic minor limits must use the traditional (and time consuming) case-by-case permitting process. Yet, EPA allowed for the creation of synthetic minor sources in the general permits for other source types under the Tribal Minor NSR program. The approach and principles that EPA developed in those permits are easily applicable to sources in the oil and gas sector.
>
> Third, EPA provided that, if an area is designated nonattainment for a given pollutant, the FIP no longer applies and a new minor source permitting program must be developed as part of the subsequent nonattainment Tribal Implementation Plan ("TIP"). The effect of this decision is that no minor source permitting mechanism will be available until a TIP is approved – which would effectively cause a permitting moratorium. This can and should be avoided by allowing the FIP to remain in place as a "bridge" after a nonattainment designation is made until the time that a TIP is approved.

Just as states can account for minor source emissions growth in the SIP, EPA and tribes can also account for minor source emissions as a programmatic matter rather than on a case-by-case basis. This is one way EPA can apply the rules in the manner suggested by API. In other words, it is the FIP that triggers ESA and NHPA not the individual permits; similarly, general conformity in nonattainment areas should be based on conformity with the NSR and oil and gas FIP unless there is another FIP or TIP in place.

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What is to come and what to look for?

Future jurisdictional questions can be informed by any additional jurisdictional determinations by EPA made in the context of individual permits or approval of tribal authority, delegation of authority to tribes and approval of tribal implementation plans.

The final outcome of challenges to the Regional Consistency rule will determine how federal policies and court decisions related to those federal policies will apply in Indian country, even where the tribe is the delegated authority. As more permits are issued in Indian country, there will be more opportunities for challenges raised to federal circuit courts over federal policies. Areas for possible challenges could include the manner of application of ESA, NHPA, and General Conformity as well as several issues related to minor source permits.

Although additional enforcement actions by EPA under the National Enforcement Initiative would inform us on the range of noncompliance issues being addressed and the options for resolutions, companies may find it worthwhile to explore voluntary compliance review and self-disclosure options. For sources in Indian country, those options are more limited than for sources under state jurisdiction.

As optical gas imaging cameras become more widely available, we can expect citizen suits to be based on evidence provided by the cameras and other similar tools. Citizens can also monitor compliance and enforce the requirements in the Indian Land FIPs Just as the increased permits available to the public from title V increased citizens ability to enforce, so will the recent increase in permits for minor sources in Indian country. Increased enforcement action and increased permitting in Indian lands also provides additional opportunities for issues to be raised in federal court.

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Complying with the Clean Air Act in Indian Country: Industry Counsel Perspective

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Overview

- Jurisdiction matters
  - What requirements apply and interpretations of requirements
  - Who issues permits
  - Who enforces and how enforcement occurs
- Complexity of Jurisdiction
  - Companies must make jurisdictional determinations even when regulatory authorities haven't.
- Tangled and intricate relationship of different federal and state requirements
  - NSPS, permits, FIPs, TIPs, tribal regulations and other federal regulations

Jurisdiction Matters: Permitting

- Role of U.S. Environmental Appeals Board
- Interpretation of rules; application of EPA guidance.
  - Federal Court decisions and Regional Consistency
- Additional regulations
  - Endangered Species Act
  - National Historic Preservation Act
  - General Conformity

Enforcement

- Primary enforcer: federal
  - Interpretations, tools, and procedures
- Basis of initiation of enforcement
    - State inspections, EPA inspections and citizen information
- Process of resolution
  - Available defenses or mitigation
- Citizen suit authority
  - FIP, TIP or tribal regulations

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Jurisdiction Determinations by Companies

- Land records, treaties, statutes, court decisions,
- Recent boundary decisions by EPA, states or tribes
  - Outstanding disputes
- Advice: Indian land law expertise and document determinations

Tangle of NSPS, FIPs and Permits

- 2011 Proposed oil and gas NSPS – OOOO: storage vessel limits needed by October 2013 soon after final rule - September 2013.
- 2011 Indian Country NSR FIP – mandates permits for major and minor sources in Indian country for new and existing sources.
- March 2013 Fort Berthold FIP – sets limits on oil and gas sources to keep them minor sources and limits on storage vessels to avoid NSPS OOOO.
- June 2016 Streamlining FIP for oil and gas minor sources to substitute for source-specific permitting.

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Issues for 2018

- Jurisdiction determinations
- Regional Consistency
- Application of ESA, NHPA, and General conformity to major and minor permit decisions
- Additional mechanisms for permitting synthetic minor sources.
- Next gen enforcement opportunities for states and citizens.
- Enforcement opportunities with Indian country permits

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Federal and Tribal Implementation of the Clean Air Act in Indian Country

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Paper 14C

Federal and Tribal Implementation of the Clean Air Act in Indian Country

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I. Introduction

As directed by the federal environmental laws it administers, the United States Environmental Protection Agency's (EPA or Agency) mission is to protect human health and the environment. It seeks to achieve this goal using a cooperative federalism approach in partnership with states, tribes, and other federal agencies. EPA works with tribal governments to develop tribal environmental programs and build the capacity of tribes to assume responsibility for the primary implementation of several federal environmental laws in Indian country, including the Clean Air Act (CAA).[2] Until tribes are willing and able to assume this primary role, the EPA generally directly implements federal environmental programs in Indian country.

Recent EPA statements to tribal government representatives and current agency planning documents affirm EPA's policy to work closely with tribal governments to fulfill EPA's mission. At an October 2017 meeting with the National Tribal Operations Committee,[3] EPA Administrator Scott Pruitt stated that "EPA is committed to working and partnering with tribal governments to address our shared environmental concerns and challenges. I understand the important role that tribal governments play in environmental management, and the unique government-to-government relationship that tribes have with the federal government."[4] The EPA's Draft Strategic Plan for Fiscal Years 2018-2022 also reflects this continued commitment to work closely with tribal governments to ensure protection of public health and the environment. The Draft Strategic Plan pledges that "EPA will build tribal capacity to implement federal programs—through delegations, authorizations, and primacy designations—and enable

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[2] Clean Air Act, 42 U.S.C. §§ 7401 et. seq. (2012).

[3] EPA established the National Tribal Operations Committee (NTOC) in February 1994 to improve communication and build stronger partnerships between the Agency and federally-recognized tribes. It is comprised of 19 tribal members from nine EPA Regions (these members are collectively referred to as the National Tribal Caucus (NTC)) and EPA's senior leadership team. The NTOC serves as the forum for the NTC and EPA senior leadership to work together on policy and resource matters related to tribal capacity building, and environmental programs in Indian country.

[4] Press Release, U.S. Envtl. Prot. Agency, Administrator Pruitt Addresses National Tribal Operations Committee (October 11, 2017), *available at* https://www.epa.gov/newsreleases/administrator-pruitt-addresses-national-tribal-operations-committee.

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tribes to meaningfully participate in the Agency's policy making, standard setting, and direct implementation activities under federal environmental statutes."[5]

These recent pronouncements from EPA's leadership extend EPA's longstanding dedication to working closely with tribal governments. In 1984, the EPA was the first federal agency to issue a national policy setting forth principles that would guide the Agency in working with tribal governments to ensure environmental protection in Indian country.[6] In the decades since, Presidential Executive Orders and EPA policies have strengthened EPA's commitment to implement federal laws in consultation and coordination with Indian tribal governments. Under these policies and presidential directives, EPA frequently consults with tribes on Agency activities that may affect tribes or tribal interests.

In the CAA, Congress provided express authority for authorized tribal governments to assume much of the responsibility for protecting air quality within the exterior boundaries of their reservations and in other areas over which a tribe has jurisdiction.[7] In 1998, EPA promulgated the Tribal Authority Rule (TAR) to implement these provisions of the CAA and provide a process for tribes to apply to EPA for treatment in a manner similar to a state (TAS), with respect to all provisions of the CAA, except those designated in 40 CFR § 49.4.[8] Under the CAA and the TAR, tribes may take responsibility for issuing Tribal Implementation Plans, implementing and enforcing new standards of performance and National Emission Standards for Hazardous Air Pollutants, and permitting. Additionally, tribes may apply to EPA to redesignate areas within the exterior boundaries of their reservations as Class I areas under the Prevention of Significant Deterioration (PSD) program. For tribes without TAS authority and programs not subject to TAS, EPA generally directly implements the CAA in Indian country.

This paper will provide an overview of EPA's implementation of the CAA in Indian country. Section II will briefly explain the United States' trust responsibility in the context of environmental protection and EPA's policies for working in a government-to-government relationship with the tribes. Section III will highlight the CAA provisions applicable to implementing air quality protections in Indian country and describe how EPA and the courts have interpreted the scope of federal and tribal jurisdiction for purposes of administering environmental programs in Indian country. Section IV will provide more depth on EPA's direct implementation role and the process for approving primary tribal roles in implementing the

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[5] U.S. ENVTL. PROT. AGENCY, Draft FY 2018-2002 Strategic Plan: Public Review Draft (October 2, 2017) at 20 (public comment period scheduled to end October 31, 2017), *available at* https://www.regulations.gov/docket?D=EPA-HQ-OA-2017-0533.

[6] U.S. ENVTL. PROT. AGENCY, EPA Policy for the Administration of Environmental Programs on Indian Reservations (November 8, 1984) (hereinafter 1984 Policy), *available at* https://www.epa.gov/tribal/epa-policy-administration-environmental-programs-indian-reservations-1984-indian-policy.

[7] *See infra* Section III.

[8] Indian Tribes: Air Quality Planning and Management, 63 Fed. Reg. 7254 (February 12, 1998) (codified at 40 C.F.R. pts. 9, 35, 49, 50, and 81) (hereinafter TAR).

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statute. Finally, Section V will describe the opportunities for tribal implementation and participation under the CAA.

II. The Federal Trust Responsibility and EPA's Policies on Working with Tribal Governments

The United States has a unique legal relationship with Indian tribal governments derived from the Constitution of the United States, treaties, statutes, Executive Orders, and court decisions.[9] In recognition of this, Congress has declared that there is a government-to-government relationship between the Unites States and each Indian tribe.[10] The United States also has a trust responsibility to each tribal government that includes the protection of their sovereignty, and Congress has recognized the self-determination, self-reliance, and inherent sovereignty of Indian tribes.[11] These principles extend to over 560 federally-recognized Indian tribes.[12]

EPA recognizes the trust responsibility that derives from the historical relationship between the Federal Government and Indian Tribes.[13] In keeping with that trust responsibility, the Agency endeavors to protect the environmental interests of Indian tribes when carrying out its responsibilities that may affect Indian country or other tribal interests.[14] In these situations, EPA ensures the close involvement of tribal governments and gives special consideration to their interests.

In 1970, President Richard Nixon proclaimed an end to nearly a century of federal government policy aimed at the "termination" of the trust relationship between the United States' government and American Indian tribes.[15] President Nixon called upon Congress to pass a joint resolution that would:

> explicitly affirm the integrity and right to continued existence of all Indian tribes and Alaska native governments, recognizing that cultural pluralism is a source of national strength. It would assure these groups that the United States Government would continue to carry out its treaty and trusteeship obligations to them as long as the groups themselves believed that such a policy was necessary or desirable. It

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[9] Exec. Order No. 13175, 3 C.F.R 304 (2001).

[10] Indian Tribal Justice Act, 25 U.S.C. § 3601 (2012).

[11] *Id.*

[12] Indian Entities Recognized and Eligible to Receive Services from the United States Bureau of Indian Affairs, 82 Fed. Reg. 4915 (Jan. 17, 2017).

[13] 1984 Policy, *supra* note 6, at 3.

[14] *Id.*

[15] President Richard Nixon, Special Message to Congress on Indian Affairs (July 8, 1970).

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> would guarantee that whenever Indian groups decided to assume control or responsibility for government service programs, they could do so and still receive adequate Federal financial support. In short, such a resolution would reaffirm for the Legislative branch--as I hereby affirm for the Executive branch--that the historic relationship between the Federal government and the Indian communities cannot be abridged without the consent of the Indians.[16]

This proclamation influenced Congress to pass the Indian Self-Determination and Education Assistance Act in 1975, but his principles of "self-determination without termination" have also helped shape federal executive branch policy on Indian affairs for the past four decades.

In 1983, President Ronald Reagan reaffirmed and expanded on President Nixon's earlier commitment;[17] shortly thereafter, the EPA issued the first federal agency policy directed at implementing the federal executive's policy of respecting the sovereignty of tribal nations and working with tribes on a government-to-government basis. The 1984 Policy sets forth the following 9 fundamental principles to guide EPA's relationships with federally recognized tribes in the administration of federal environmental laws:

- The Agency stands ready to work directly with Indian Tribal Governments on a one-to-one basis (the "government-to-government relationship). Rather than as subdivisions of other governments.
- The Agency will recognize tribal governments as the primary parties for setting standards, making environmental policy decisions and managing programs for reservations, consistent with agency standards and regulations.
- The Agency will take affirmative steps to encourage and assist tribes in assuming regulatory and program management responsibilities for reservation lands.
- The Agency will take appropriate steps to remove existing legal and procedural impediments to working directly and effectively with tribal governments on reservation programs.
- The Agency, in keeping with the federal trust responsibility, will assure that tribal concerns and interests are considered whenever EPA's actions and/or decisions may affect reservation environments.
- The Agency will encourage cooperation between tribal, state and local governments to resolve environmental problems of mutual concern.
- The Agency will work with other federal agencies which have related responsibilities on Indian reservations to enlist their interest and support in cooperative efforts to help tribes assume environmental program responsibilities for reservations.
- The Agency will strive to assure compliance with environmental statutes and regulations on Indian reservations.

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[16] *Id.*

[17] President Ronald Reagan, Statement on Indian Policy (January 24, 1983).

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- The Agency will incorporate these Indian policy goals into its planning and management activities, including its budget, operating guidance, legislative initiatives, management accountability system and ongoing policy and regulation development processes.[18]

Although EPA has issued subsequent policies related to its interactions with tribes in implementing environmental laws, the 1984 policy is still referred to by many as "the EPA's Indian policy" and serves as the foundation for EPA's interactions with tribes.

Two additional EPA policies specific to EPA and tribal consultation are worth mentioning. First, in 2011, EPA issued the *EPA Policy on Consultation and Coordination with Indian Tribes*.[19] This policy addresses Executive Order 13175's consultation requirements for federal agencies and reflects the principles expressed in the 1984 Policy for interacting with tribes. The policy establishes "guidance and institutional controls" for "meaningful communication between EPA and tribal officials prior to EPA taking actions or implementing decisions that may affect tribal interests."[20] The policy provides examples of the types of EPA activities that would normally implicate consultation if they affect tribal interests, including rules, guidance and policy, permits, compliance monitoring and enforcement actions, and state or tribal authorizations and delegations.[21] It also provides guidance on the timing and appropriate officials for consultation. EPA Region 8 conducts dozens of consultations per year with tribal governments.

In 2016, EPA issued guidance specific to consulting and coordinating with Indian tribes on tribal treaty rights.[22] Through treaty-making, tribes reserved to themselves rights they already possessed, while exchanging some of their inherent rights or property with the federal government. Like other U.S. treaty obligations, the U.S. Constitution defines Indian treaties as part of the supreme law of the land along with the U.S. Constitution and federal statutes.[23] All federal agencies are bound to give effect to treaty language, so agencies should interpret their statutes in harmony with tribal treaty rights, whenever possible. The Tribal Treaty Rights Consultation Policy provides guidance on EPA decisions that affect a specific geographic area

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[18] 1984 Policy, *supra* note 6, at 2-4.

[19] U.S. ENVTL. PROT. AGENCY, EPA Policy on Consultation and Coordination with Indian Tribes (May 4, 2011) (hereinafter 2011 Consultation Policy).

[20] *Id.* at 1.

[21] *Id.* at 5.

[22] U.S. ENVTL. PROT. AGENCY, EPA Policy on Consultation and Coordination with Indian Tribes: Guidance for Discussing Tribal Treaty Rights (February 19, 2016) (hereinafter Tribal Treaty Rights Consultation Policy).

[23] U.S. Const. art. VI, cl. 2. However, the U.S. Supreme Court has long held that Congress may abrogate treaty rights through a clear expression of intent in federal law. *See, e.g., U.S. v. Kagama*, 118 U.S. 375, at 383-84 (1886); *Lone Wolf v. Hitchock*, 187 U.S. 553, at 565 (1903).

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where tribal treaty rights related to natural resources may exist.[24] Treaties do not expand EPA's statutory authority. However, treaty rights may limit, or even prohibit, EPA from taking an otherwise lawful action if the action would conflict with a treaty right.

These EPA policies and executive pronouncements underlie all of the Agency's work with Indian tribes. While EPA directly implements many environmental programs in Indian country, Congress has also provided authorization for tribes to assume implementation authority under several environmental statutes. The following sections focus on both federal and tribal implementation of the CAA in Indian country.

III. Clean Air Act Authorities in Indian Country

Congress significantly changed the CAA's Indian country authorities in 1990 when it authorized EPA to treat tribes in a similar manner as states for the regulation of "air resources within the exterior boundaries of [a] reservation or other areas within the tribe's jurisdiction."[25] When eligible tribes apply to EPA for authority under the CAA, EPA may approve them to assume regulatory and program management responsibilities in Indian country through the treatment in a similar manner as a state (TAS) process.[26] However, until tribal governments are willing and able to assume full responsibility for programs, EPA generally retains responsibility for managing federal environmental programs in Indian country.[27] This responsibility is known as direct implementation.

The Tribal Authority Rule

EPA's Tribal Authority Rule (TAR)[28] provides the regulatory backdrop for the administration of the CAA in Indian country.[29] In the TAR, EPA interprets the 1990 CAA Amendments as establishing a territorial view of tribal jurisdiction and authorizing a tribal role for all air resources within the exterior boundaries of Indian reservations without distinguishing among various categories of on-reservation land.[30] EPA also construes the word "reservation" to include at least two categories of lands that have been validly set apart for use by a tribe—

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[24] Tribal Treaty Rights Consultation Policy, *supra* note 22, at 1.

[25] 42 U.S.C. §§ 7410(o), 7601.

[26] U.S. ENVTL. PROT. AGENCY, EPA's Direct Implementation of Federal Environmental Programs in Indian Country 1 (August 25, 2016) (hereinafter EPA Direct Implementation), *available at* https://www.epa.gov/tribal/epas-direct-implementation-federal-environmental-programs-indian-country.

[27] *Id.* at 1; 42 U.S.C. § 7601(a), (d); 40 C.F.R. § 49.11.

[28] TAR, *supra* note 8. The TAR was upheld in *Arizona Pub. Serv. Co. v. EPA*, 211 F.3d 1280 (D.C. Cir. 2000) *cert. denied* 532 U.S. 970 (2001).

[29] Indian country includes land within the limits of Indian reservations, dependent Indian communities, Indian and allotments. 18 U.S.C. § 1151 (2012).

[30] 63 Fed. Reg. at 7254.

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Pueblos and tribal trust lands[31]—even though the lands have not been formally designated as a "reservation."[32]

Because Congress has delegated authority to eligible tribes to administer CAA programs over their reservations, a tribe applying for TAS must precisely identify the boundaries of the reservation.[33] But EPA does not interpret the CAA as a delegation of authority to otherwise eligible tribes to implement CAA programs over non-reservation areas. [34] An authorized tribe may implement its air quality programs in non-reservation areas only when the tribe can adequately demonstrate its inherent tribal authority to regulate air quality in the non-reservation area under general principles of Indian law.[35]

Since EPA's TAS decisions involve jurisdictional evaluations,[36] the TAR established a framework in which "appropriate governmental entities"[37] receive notice and can comment on an applicant tribe's jurisdictional assertion, i.e., its assertion of reservation boundaries and/or authority over non-reservation areas.[38] Comments are also accepted from the public.[39] If a tribe's assertion is subject to a conflicting claim, the Regional Administrator may request additional information from the tribe and may consult with the Department of the Interior.[40] Once EPA makes a jurisdictional determination, it applies to all future CAA applications from that tribe, and EPA will not provide additional notice to appropriate governmental entities unless future applications present different jurisdictional issues or significant new factual or legal information.[41]

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[31] 63 Fed. Reg. at 7258 ("EPA will consider lands held in fee by nonmembers within a Pueblo to be part of a 'reservation' under 40 C.F.R. § 49.6(c) and 49.7(a)(3)."). "Pueblos are villages, primarily located in New Mexico, held by tribes in communal fee-simple ownership, originally acquired under grants from Spain and Mexico, and confirmed by Congress in the late 1800s." *Arizona Pub. Serv. Co.*, 211 F.3d at 1292 (citing *United States v. Sandoval*, 231 U.S. 28, 38-39 (1913)).

[32] 63 Fed. Reg. at 7257-58 (citing *Oklahoma Tax Commission v. Citizen Band Potawatomi Indian Tribe of Oklahoma*, 111 S. Ct. 905, 910 (1991)).

[33] 40 C.F.R. § 49.7.

[34] 63 Fed. Reg. at 7259.

[35] 63 Fed. Reg. at 7258.

[36] 42 U.S.C. § 7601(d)(2)(B).

[37] EPA has defined "appropriate governmental entities" as states, tribes, and other federal entities located contiguous to the tribe applying for eligibility. 63 Fed. Reg. at 7267 (citing 56 Fed. Reg. 64876, 64884 (Dec. 12, 1991)).

[38] 40 C.F.R. § 49.9.

[39] 65 Fed. Reg. 1322 (January 10, 2000).

[40] 40 C.F.R. §§ 49.9(d), (f).

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TAS and other EPA decisions involving Indian country status can lead to challenges. Jurisdictional challenges are not unique to EPA, and they often concern whether Congress diminished the reservation at issue. While some cases uphold established reservation boundaries,[42] cases holding that reservations located in EPA Region 8 were diminished—whether by changed exterior boundaries,[43] interior lands,[44] or disestablished altogether[45]—evidence the gravitas and individuality of jurisdictional decisions in Indian country.

IV. EPA Role in Indian Country Under the CAA

Under the CAA, EPA sets specific air quality standards, known as the National Ambient Air Quality Standards (NAAQS), to help ensure public health and environmental protection from pollution. If EPA determines that provisions of a plan to achieve NAAQS are necessary or appropriate, and a tribe does not to develop its own plan, EPA will create a federal implementation plan, or FIP, and directly implement CAA programs in Indian country.[46] EPA also limits emissions of air pollutants coming from stationary, mobile, and area sources. This section highlights the key EPA' responsibilities that protect and enhance air quality in Indian country.

Designations

Under CAA Section 107(d), EPA is responsible for designating all areas of the nation as meeting or not meeting the NAAQS for each of the six established common air pollutants, known as "criteria pollutants."[47] The six criteria pollutants are particulate matter or PM, ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, and lead. Every five years, EPA is required to review the science upon which the standards for a particular pollutant are based and revise them, as necessary, to protect human health and the environment with an adequate margin of safety.

Establishing an area designation is the first step in determining whether further emissions reductions are needed in a particular area to attain or maintain the NAAQS. The CAA identifies three designation categories: (1) nonattainment – air quality is worse than the level of the NAAQS; states with nonattainment areas must include provisions in their SIPS that are designed to improve air quality and attain the NAAQS within a certain period of time; (2) attainment – air quality is equal to or better than the level of the NAAQS; SIPs covering attainment areas must

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[42] *Solem v. Bartlett*, 465 U.S. 463 (1984) (Cheyenne River Reservation).

[43] *Rosebud Sioux Tribe v. Kneip*, 430 U.S. 584 (1977) (Rosebud Indian Reservation).

[44] *Hagen v. Utah*, 510 U.S. 399 (1994) (diminishing the upper, Uintah Valley portion of the Uintah and Ouray Indian Reservation).

[45] *DeCoteau v. District County Court*, 420 U.S. 425 (1975) (Lake Traverse Indian Reservation).

[46] EPA or a tribe must have demonstrated tribal authority over a non-reservation area of Indian country for EPA to promulgate a Federal Implementation Plan for such area pursuant to CAA § 7601(d)(4) and the TAR at § 49.11. *See Okla. Dep't of Envtl. Quality v. EPA*, 740 F.3d 185, 192 (D.C. Cir. 2014).

[47] 42 U.S.C. § 7407(d).

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contain provisions designed to maintain air quality; and (3) unclassifiable – there is insufficient data on air quality for the area; the area is treated as in attainment. Each area designation is for a specific standard and criteria pollutant. An area can be in attainment for one standard and nonattainment or unclassifiable for another. EPA will create a federal implementation plan (FIP) for areas of Indian country where there is no EPA-approved plan to improve air quality (in the case of nonattainment) or maintain air quality (in the case of attainment) without unreasonable delay when it determines that it is necessary or appropriate to do so.

Standards of Performance

CAA Section 111 directs EPA to establish pollution control requirements for certain sources which cause or contribute significantly to air pollution which may reasonably be anticipated to endanger public health or welfare.[48] These requirements are known as new source performance standards (NSPS) and regulate pollutants such as particulate matter, sulfur dioxide, carbon monoxide, nitrogen oxides, volatile organic compounds, acid mist, total reduced sulfur and fluorides. NSPS are detailed in 40 CFR Part 60, and are intended primarily to establish minimum nationwide requirements for new and modified existing facilities. Section 111(d) may also apply to existing facilities; for existing facilities EPA establishes Emissions Guidelines for which states develop and implement plans. EPA (via a federal plan) or a tribe (via a tribal implementation plan (TIP)) may also implement Section 111(d) for existing sources in Indian country.[49]

National Emission Standards for Hazardous Air Pollutants

Under CAA Section 112, EPA is responsible for developing National Emission Standards for Hazardous Air Pollutants (NESHAP) for the control of Hazardous Air Pollutants (HAP) from both new and existing major or area sources in various categories of sources. The CAA requires the standard to reflect the maximum achievable reduction in HAP emissions, taking into consideration the cost of achieving the emission reduction, and any non-air quality health and environmental impacts and energy requirements. This level of control is commonly referred to as maximum achievable control technology (MACT). NESHAPs apply nationally and the owner/operator of a source subject to a particular NESHAP must ensure that the source is operated in compliance with the requirements of the NESHAP without the need for an implementation plan. Every eight years, EPA is required to review and revise as necessary standards of performance in the NSPS program and emissions standards in the NESHAP program.

In addition, CAA Sections 111 and 112 allow EPA to transfer primary implementation and enforcement authority for most of the federal standards to state, tribal, or local regulatory agencies.[50] This transfer of authority is called delegation. Upon delegation of a standard, sources

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[48] 42 U.S.C. § 7411.

[49] 42 U.S.C. § 7411(d).

[50] 42 U.S.C. § 7411 and §7412.

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must send any required notifications or reports directly to the delegated agency. The delegated agency may also receive authority to make certain source-specific decisions that reflect flexibility allowed by the standard.

Air Quality Implementation Plans in Indian country

CAA Section 110 requires states to adopt enforceable plans (state implementation plans, or SIPs), which are overseen by EPA, to achieve and maintain ambient air concentrations at or below the NAAQS.[51] Section 110(c)(1) of the CAA directs EPA to promulgate, ''within 2 years,'' a Federal Implementation Plan (FIP) after EPA finds that a state has failed to submit a required plan, has submitted an incomplete plan, or it has been 2 years after EPA has disapproved all or a portion of a plan with no replacement in place.[52] In the TAR, EPA found that it was inappropriate to impose similar plan submittal and federal oversight requirements on tribes, which are still in the early stages of developing their air quality capacities and programs.[53] However, the Agency did include a provision for EPA to promulgate FIP provisions as necessary or appropriate to protect tribal air quality within a reasonable time if tribal efforts do not result in adoption and approval of tribal plans or programs.[54]

In 2013, the EPA issued a reservation-specific FIP to regulate emissions from oil and natural gas production facilities located on the Fort Berthold Indian Reservation in North Dakota.[55] The FIP includes basic air quality regulations for the protection of communities in and adjacent to the Fort Berthold Indian Reservation and requires owners and operators of oil and natural gas production facilities to reduce emissions of volatile organic compounds emanating from well completions, recompletions, and production and storage operations. The FIP is implemented by EPA, or a delegated tribal authority, until it is replaced by a TIP.

Clean Air Act Permitting in Indian Country

Preconstruction Permits

EPA issues preconstruction air permits in Indian country in the absence of an EPA-approved permitting program. Under the New Source Review (NSR) program, stationary sources of air pollution are required to get permits before they begin construction. These permits focus primarily on the NAAQS six criteria pollutants. There are three types of NSR permits: (1) Prevention of Significant Deterioration (PSD) permits which are required for new major sources or major modifications at existing sources for pollutants where the area the source is locating or

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[51] 42 U.S.C. § 7410.

[52] 42 U.S.C. § 7410(c)(1)

[53] *See* 40 C.F.R. § 49.4.

[54] TAR, *supra* note XX, at 7265; 40 C.F.R. § 49.11(a).

[55] Approval and Promulgation of Federal Implementation Plan for Oil and Natural Gas Well Production Facilities; Fort Bethold Indian Reservation (Mandan, Hidatsa, and Arikara Nation, North Dakota, 78 Fed. Reg. 17835 (Mar. 22, 2013).

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located is in attainment or unclassifiable with the NAAQS;[56] (2) Nonattainment NSR permits that are required for new major sources or major modifications at existing major sources located in nonattainment areas;[57] and (3) Minor source permits that are required to prevent the construction of sources that would interfere with attainment or maintenance of a NAAQS.[58]

In Indian country, all new major sources and major modifications at existing major sources located in nonattainment areas are required to obtain a permit before beginning construction.[59] Pre-construction permits are also required for all new and modified minor sources and minor modifications at major sources.[60] There are also specific rules designed to control and reduce air emissions from new and modified true minor sources in the oil and natural gas production and natural gas processing segments of the oil and natural gas sector.[61]

Operating Permits

In addition to preconstruction permits, EPA issues operating permits (also referred to as Title V permits) to applicable facilities typically within a year of commencing operations or becoming subject to a requirement triggering the need for such a permit.[62] Operating permits contain all the applicable requirements for a source, including NSR permit terms. These permits are designed to maintain and improve compliance and must be renewed every five years.

Compliance Assurance and Enforcement

Pursuant to its authority under CAA Section 114, EPA conducts compliance evaluations and investigations to ensure compliance in Indian country.[63] EPA can provide compliance assistance to help facilities understand the regulatory obligations and maintain compliance. EPA will also take civil or criminal enforcement actions to address noncompliance if appropriate.

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[56] 42 U.S.C. §§ 7470-7479; applicable regulations at 40 C.F.R. §§ 51.166 (States/Tribes) and 52.21 (Federal)

[57] 42 U.S.C. §§ 7501-7515; applicable regulations at 40 C.F.R. §§ 49.166-175 (Tribal) and 51.165 (States)

[58] 42 U.S.C. § 7410(a)(2)(c); applicable regulations at 40 C.F.R. §§ 49.151-165 (Tribal) and 51.160-164 (Federal)

[59] 40 C.F.R. § 49.166.

[60] 40 C.F.R. § 49.151.

[61] 40 C.F.R. § 49.101-105.

[62] 42 U.S.C. § 7661; applicable regulations at 40 C.F.R. Part 71.

[63] 42 U.S.C. § 7414.

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Air Mobile Sources Program

Under Title II of the CAA, EPA implements the air mobile sources program and conducts inspections and takes enforcement as appropriate.[64] This program mandates emissions standards for all motor vehicles and mobile engines, and establishes formulation requirements for the fuels that are used in vehicles and engines. The mobile source standards apply to vehicles and engines of all sizes, and the fuels standards apply to all gasoline and diesel fuel used nationwide. Vehicles and engines used in the United States must be manufactured under the terms issued by EPA which are generally nationally enforced and not delegated to states or tribes.

V. The Role of Tribes Under the CAA

Tribes have multiple roles under the CAA. They can develop, apply for, and implement programs; request delegated authority to implement FIPs or other EPA standards and programs; redesignate airsheds; engage with states in dispute resolution; and receive grants for capacity building. This section explains tribal roles and the associated processes.

Treatment as a State

EPA can treat a tribe in a similar manner as a state for most CAA provisions,[65] as long as the tribe satisfies certain requirements.[66] A tribe must demonstrate that it is a federally recognized tribe;[67] has a governing body carrying out substantial governmental duties and functions; is able to implement the program consistent with the CAA and applicable regulations; can identify the exterior boundaries of the reservation and, for non-reservation areas, the basis for the tribe's jurisdiction.[68] If EPA previously determined that a tribe met these criteria under another EPA program, then the tribe can satisfy the first two requirements by noting the prior determination in a subsequent application.[69] A tribe may submit its TAS application and CAA program submission simultaneously;[70] however, tribes have generally chosen to submit a TAS application first and then submit their program following approval of their TAS eligibility.

The Tribal Authority Rule gives tribes flexibility in how they implement the CAA. The Rule authorizes tribes to submit CAA programs for approval, but it does not require tribes to do so. Tribes may implement those programs, or even portions of programs, that are most relevant

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[64] 42 U.S.C. §§ 7521-7590 (2012).

[65] EPA lists the CAA provisions for which it is not appropriate to treat tribes in the same manner as states in 40 C.F.R. § 49.4.

[66] 42 U.S.C. § 7601(d)(2); 63 Fed. Reg. at 7259.

[67] The BIA publishes a list of federally recognized tribes. *See* 82 Fed. Reg. 4915 (Jan. 17, 2017).

[68] 40 C.F.R. § 49.6.

[69] 40 C.F.R. § 49.7(a)(8).

[70] 40 C.F.R. § 49.7(b).

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to the air quality needs of tribes.[71] When a tribe does submit a CAA program to EPA for approval, the program must meet the applicable CAA requirements for that program.[72] Tribes have the same authority as states do under the CAA to impose requirements that are more stringent than the minimum federal requirements.[73] Tribes that meet the eligibility criteria can receive TAS for all provisions of the CAA and implementing regulations, except those identified in 40 C.F.R. § 49.4. For example, TAS is available for TIPs, standards of performance, NESHAPs, permitting, and compliance assurance and enforcement.

Under CAA Section 110(a), (o) and the TAR, a tribe with TAS may develop its own air quality control plan, called a Tribal implementation plan or TIP, for approval by EPA. A TIP is a set of regulatory programs developed and adopted by tribes to help attain and maintain the NAAQS. Tribes can also implement and enforce standards of performance after adopting regulations under their authority and submitting them to EPA for approval.[74] Tribes can implement and enforce NESHAPs by having an approved Title V operating permit program. Section 112(l) allows EPA to approve tribal programs to implement and enforce emission standards for pollutants subject to Section 112 regulations.

Tribes can also apply for delegation, without seeking TAS, to assist EPA in implementing federal permitting under the CAA Federal Minor New Source Review Program in Indian Country, the Federal Major New Source Review Program for Nonattainment Areas in Indian Country, and the Federal Prevention of Significant Deterioration Program (see section below on Delegations of FIPs). In addition, tribes may submit a TAS application for delegation of federal permitting authority for Part 71 (Title V federal operating permits), which provides for delegation to eligible tribes and states, and may also submit a TAS application under Part 70 to implement their own program.

Tribes that implement the CAA under an EPA-approved TIP conduct Full Compliance Evaluations, Partial Compliance Evaluations, and investigations. These tribes can also take civil enforcement with EPA program oversight. To the extent that a tribe administering a TIP is precluded from asserting criminal enforcement authority, the federal government exercises primary criminal enforcement responsibility. However, the tribe and an EPA Region can develop a procedure by which the tribe will provide potential investigative leads to EPA and other appropriate federal agencies in an appropriate and timely manner.[75] In addition, even where tribes are not administering their own TIPs, EPA may enter into written agreements with tribes to allow properly trained employees to obtain and use a federal CAA credential to conduct

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[71] 40 C.F.R. § 49.7(c).

[72] 40 C.F.R. § 49.7(c); 40 C.F.R. § 49.9(h).

[73] 40 C.F.R. § 49.1(b).

[74] *See, e.g.*, EPA Direct Implementation, *supra* note 26, at 5.

[75] 40 C.F.R. § 49.8.

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inspections on behalf of the Agency. In these circumstances, the tribes send inspection reports to EPA, which makes all compliance determinations and initiates, if appropriate, any subsequent civil enforcement activity.[76]

Delegations of FIPs

A tribe can also request an EPA Regional Administrator delegate the authority for the tribe to assist with the administration of a Federal Implementation Plan under the CAA.[77] Tribes interested in such delegations to assist EPA with the administration of a FIP do not need TAS, and administrative delegation does not affect the eligibility criteria for TAS or a tribe's ability to obtain approval of a TIP.[78] To request delegated authority to assist EPA with the administration of a FIP, a tribe must identify the provisions requested for delegation; identify the reservation or other Indian country area subject to the requested delegation; and include a supporting statement from the tribe's legal counsel.[79] The statement must show that the tribe is federally recognized, it is capable of carrying out substantial government duties in the area, it is authorized by tribal law to administer the requested federal rules, and that the responsible tribal agency has the capability and resources to administer the FIP.[80] When a tribe meets these delegation requirements, EPA and the tribe may enter into a Delegation of Authority Agreement, which explains the delegation's terms and identifies the delegated rules and provisions.[81]

Redesignating Tribal Airsheds

Like states, tribes can submit to EPA proposals to redesignate areas under their jurisdiction as Class I, II, or III[82] under the PSD program.[83] Tribes proposing redesignations must follow requirements concerning public hearings, notice, justification, and exceedances of the NAAQS.[84] Tribes don't need TAS status to propose redesignations of their reservations.[85]

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[76] *Id.* at 6.

[77] *See, eg.,* 40 C.F.R. § 49.103.

[78]

[79] *See, eg.,* 40 C.F.R. § 49.103(b).

[80] *Id.*

[81] *See, eg.,* 40 C.F.R. § 49.103(c).

[82] Class I increments are the most protective because they allow the least amount of air quality degradation; Class II increments allow a moderate amount of degradation; and Class III increments allow the most. The majority of the United States was originally designated as Class II. *See,* U.S. ENVTL PROT. AGENCY, Guidance for Indian Tribes Seeking Class I Redesignation of Indian Country Pursuant to Section 164(c) of the Clean Air Act 3 (2013) (hereinafter Redesignation Guidance), *available at* https://www.epa.gov/sites/production/files/2016-08/documents/guidancetribesclassiredesignationcaa.pdf.

[83] 40 C.F.R. § 52.21(g).

[84] 40 C.F.R. § 52.21(g)(4).

[85] Redesignation Guidance, *supra* note 82, at 8.

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EPA may disapprove the redesignation of an area only if [it] finds, after notice an opportunity for public hearing, that such redesignation does not meet the procedural requirements of this section [164(b)(2)]."[86]

The main reason for tribes to redesignate areas to Class I is to obtain more environmental protection for reservation air quality and tribal resources, via two principal protections. First, air quality is not permitted to deteriorate by more than the PSD increments established for Class I areas, which are lower than the PSD increments for Class II areas. Second, a PSD permit may not be issued if the source will have an adverse impact on any Air Quality Related Value that has been defined for the particular Class I area. To date, EPA has only redesignated a handful of reservations to tribal Class I areas.[87]

Dispute Resolution under CAA § 164(e)

CAA Section 164(e) provides that a tribe or state may invoke dispute resolution when there is a dispute over the redesignation of a tribal area or when a proposed PSD permit may "cause or contribute to a cumulative change in air quality."[88] EPA has not developed rules to govern the process for resolving such disputes,[89] but the CAA provides that where parties cannot reach agreement on their issues, the EPA Administrator will consider whether the lands to be redesignated "are of sufficient size to allow effective air quality management or have air quality related values of such an area."[90] The Act also provides that if requested by the parties, the Administrator "shall make a recommendation to resolve the dispute and protect the air quality related values of the lands involved"[91] If the parties are unable to reach a resolution of their dispute, the Administrator has the authority to resolve the issues.[92] Disputes are handled on a case-by-case basis, dependent upon the specific circumstances at issue. If the parties cannot

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[86] 42 U.S.C. § 7474; *see also, Michigan*, 581 F.3d at 526; *Arizona*, 151 F.3d at 1212.

[87] 40 C.F.R. § 52.1382(c)(2)(4) (The Northern Cheyenne Indian Reservation, Montana; the Flathead Indian Reservation, Montana; and the Fort Peck Indian Reservation, Montana); 40 C.F.R. § 52.2497(c) (Spokane Indian Reservation, Washington); 40 C.F.R. § 52.2581(f) (Forest County Potawatomi Reservation, Wisconsin). EPA had also previously approved the redesignation of certain areas of the Yavapai-Apache Nation Indian reservation land, in Arizona, but the 9th Circuit, while affirming portions of EPA's action, partially reversed and remanded the redesignation decision for further administrative proceedings. *Administrator, State of Arizona v. U.S.E.P.A.*, 151 F.3d 1205 (9th Cir. 1998), *amended opinion reported at* 1998 U.S. App. LEXIS 33968.

[88] 42 U.S.C. § 7474(e); *see also* 40 C.F.R. § 52.21.

[89] While EPA issued an advanced notice of proposed rulemaking seeking input on establishing rules for PSD permit review procedures for proposed PSD sources that may adversely affect the air quality of any state or tribal non-federal Class I area, and that would have set forth more specific procedures for EPA's resolution of any intergovernmental permit disputes which may arise, EPA has not formally proposed such rules. 62 Fed. Reg. 27158 (May 16, 1997).

[90] 42 U.S.C. § 7474(e).

[91] *Id.*

[92] *Id.*

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reach resolution, the Administrator has the unilateral authority to resolve the outstanding issues.[93]

Building Tribal Air Program Capacity Through Grants

One way Tribes build capacity is through the use of grants from EPA. Tribes are eligible for two primary grants to carry out provision of the CAA. The first are research and development grants under CAA § 103, and the second are air pollution control grants under CAA § 105. Section 103 grants are project grants that can provide tribes funding for projects to study or investigate the causes and prevention of air pollution.[94] These grants typically have a one-year project period. Section 105's air pollution control grants are awarded to develop and administer programs that prevent and control air pollution or implement national air quality standards for air resources within the exterior boundaries of the reservation or other areas within the Tribe's jurisdiction.[95] For air pollution control grants, tribes must provide matching funds that vary depending on their TAS eligibility.[96]

VI. Conclusion

Pursuant to the U.S. Constitution, treaties, federal law, and Presidential directives, EPA respects tribal sovereignty and works with American Indian tribes on a government-to-government basis to ensure environmental protection in Indian country. These efforts include consultation on all EPA matters that may affect tribal interests. Under the CAA, Congress provided tribes with substantial opportunities to participate in the implementation of programs to protect and improve air quality in Indian country. As such, EPA has invested in building tribal capacity and a cooperative relationship to assist tribes in taking on these responsibilities.

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[93] *Id.*

[94] Grant project topics can include air quality, acid deposition, global programs, indoor environments, radiation, mobile source technology and community-driven approaches to transportation and emissions reduction.

[95] 40 C.F.R. § 35.570(b).

[96] 40 C.F.R. § 35.575.

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CAA Implementation in Indian Country

- **Tribal governments**
  - EPA recognizes tribal governments as the primary parties for managing programs for reservations *(1984 EPA Policy).*
  - Program Implementation - Tribal Authority Rule implements CAA section 7601(d) and authorizes EPA to treat tribal governments in a similar manner as a state (TAS) to implement CAA programs.
- **EPA Implementation**
  - Where EPA has not approved a tribe to implement federal environmental programs, Region 8 directly implements those programs, typically on all lands within the exterior boundaries of the reservation (permitting, enforcement, etc.)
  - Capacity Building through grants, technical and compliance assistance, trainings, etc.
  - EPA consults with tribal governments on actions that may affect tribal interests
- **State governments**
  - Generally, states do not have CAA regulatory authority in Indian country
  - Region 8 approvals of state programs exclude Indian country

K.C. Schefski, Regional Counsel February 2018

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TAS Approval

- Regulatory criteria for approving CAA TAS –
  - The applicant is an Indian tribe recognized by the Secretary of Interior;
  - The Indian tribe has a governing body carrying our substantial governmental duties and functions;
  - The functions to be exercised by the Indian tribe pertain to the management and protection of air resources within the exterior boundaries of the reservation or other areas within the tribe's jurisdiction; and,
  - The Indian tribe is reasonably expected to be capable, in the EPA Regional Administrator's judgment, of carrying out the functions to be exercised in a manner consistent with the terms and purposes of the Clean Air Act and all applicable regulations.

[See 40 C.F.R. § 49.6]

Jurisdiction Determinations by Companies

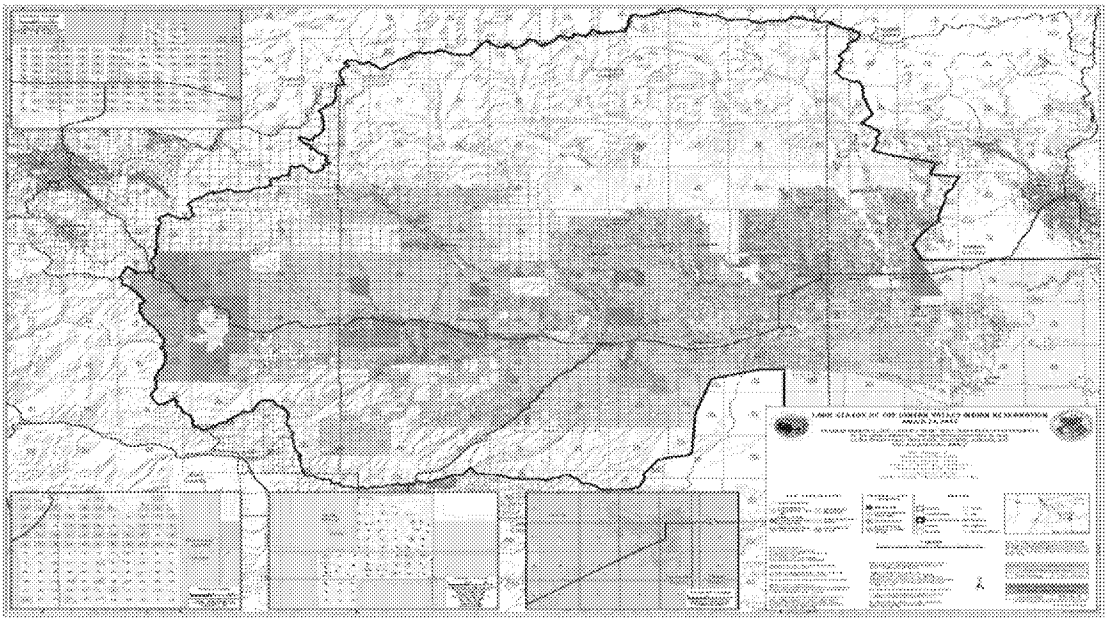
- Land records, treaties, statutes, court decisions,
- Recent boundary decisions by EPA, states or tribes
  - Outstanding disputes
- Advice: Indian land law expertise and document determinations

Region 8 Process for Assessing Jurisdiction

- Region 8 determines tribal jurisdictional status prior to taking action (permit, enforcement, etc).
- Relies on underlying data provided by BIA to provide accurate reservation boundary status.
- Process for verifying land status involves:
  - Confirming jurisdictional status based on review of best available data, court rulings, treaties, or other pertinent information.

K.C. Schefski, Regional Counsel
February 2018

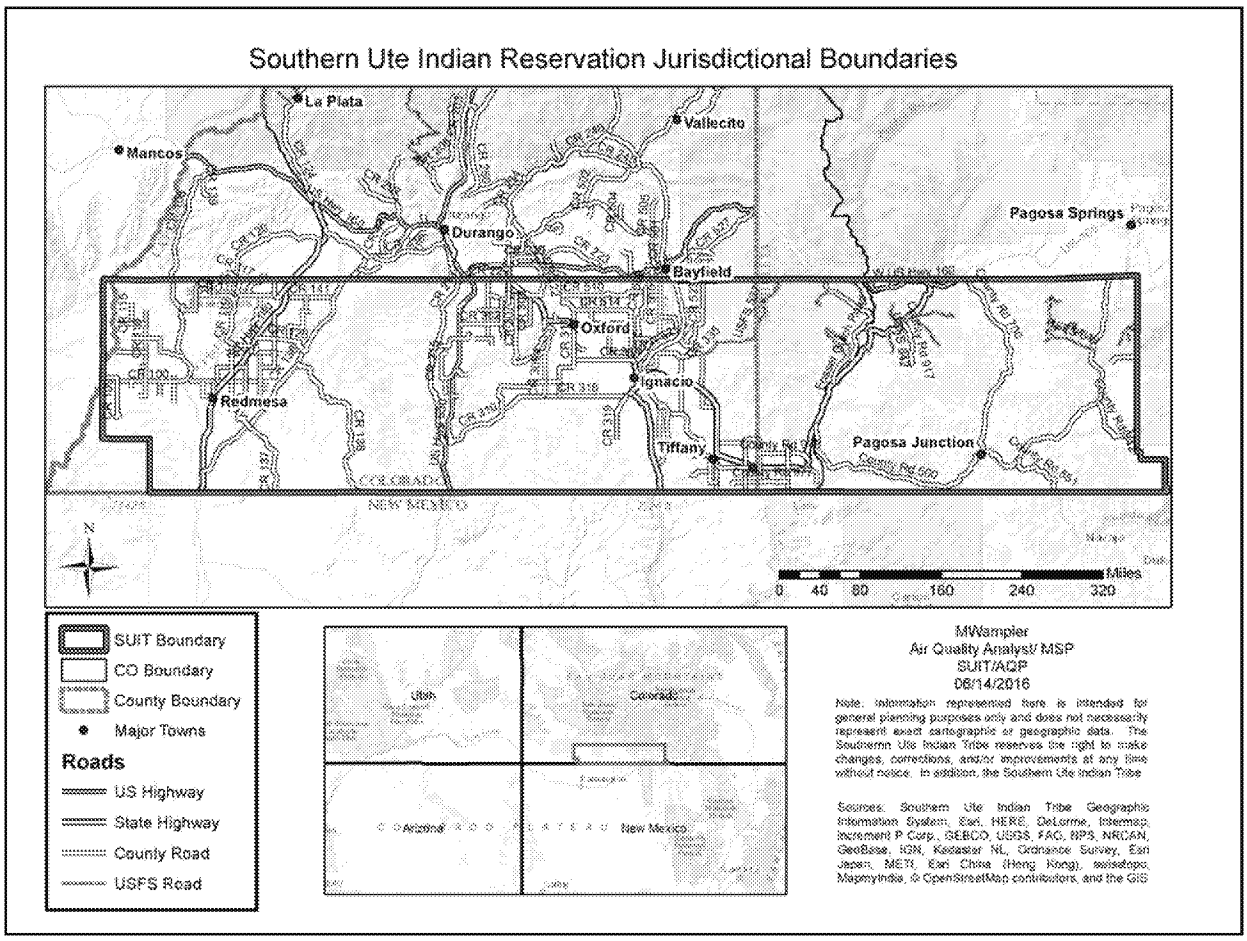
Uintah Valley portion of the Uintah & Ouray Reservation – complexity of jurisdiction on some reservations



Department of Interior, Land Status of the Uintah Valley Indian Reservation (March 24, 2017)

For illustrative purposes only – map does not necessarily represent the most recent and accurate delineations of tribal lands

K.C. Schefski, Regional Counsel February 2018


Southern Ute Indian Reservation Jurisdictional Boundaries
La Plata
Vallecito
Mancos
Durango
Pagosa Springs
Bayfield
Oxford
Ignacio
Redmesa
Tiffany
Pagosa Junction
NEW MEXICO
N
0 40 80 160 240 320
Miles
SUIT Boundary
CO Boundary
County Boundary
Major Towns
Roads
US Highway
State Highway
County Road
USFS Road
Utah
Colorado
Arizona
New Mexico
MWampler
Air Quality Analysi/ MSP
SUIT/AQP
06/14/2016
Note: Information represented here is intended for general planning purposes only and does not necessarily represent exact cartographic or geographic data. The Southern Ute Indian Tribe reserves the right to make changes, corrections, and/or improvements at any time without notice. In addition, the Southern Ute Indian Tribe
Sources: Southern Ute Indian Tribe Geographic Information System, Esri, HERE, DeLorme, Intermap, Increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS

Other Examples in EPA Region 8

- **No diminishment** – Cheyenne River Reservation; Solem v. Bartlett, 465 U.S. 463 (1984)
- **Change to exterior boundaries** – Rosebud Indian Reservation; Rosebud Sioux Tribe v. Kneip, 430 U.S. 584 (1977)
- **Disestablished reservation** – Lake Traverse Indian Reservation; DeCoteau v. District County Court, 420 U.S. 425 (1975)
- **Exterior boundaries intact but diminished Indian country within those boundaries** – Hagen v. Utah, 510 U.S. 399 (1994); South Dakota v. Yankton Sioux Tribe, 522 U.S. 329 (1998).

Indian Land CAA Rules

- 2011 Indian Country NSR Rule
- 2013 Fort Berthold FIP
- Eleven General Permits and Permits-by-rule
- 2016 Oil and gas minor source FIP

Eleven General Permits and PBRs

- Dispensing facilities (permit by rule)
- Auto body repair and miscellaneous surface coating operations (permit by rule)
- Petroleum dry cleaners (permit by rule)
- Stone quarrying, crushing and screening facilities (general permit)
- Hot mix asphalt plants (general permit)
- Boilers and emergency engines (general permit)
- Spark ignition engines (general permit)
- Compression ignition engines (general permit)
- Graphic arts and printing operations (general permit)
- Concrete batch plants (general permit)
- Sawmill facilities (general permit)

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Issues for 2018

- Jurisdiction determinations
- Regional Consistency
- Application of ESA, NHPA, and General conformity to major and minor permit decisions
- Additional mechanisms for permitting synthetic minor sources.
- Next gen enforcement opportunities for states and citizens.
- Enforcement opportunities with Indian country permits

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