Message

From: Hewitt, James [hewitt.james@epa.gov]
Sent: 10/15/2018 10:31:57 PM
To: Konkus, John [konkus.john@epa.gov]
CC: Abboud, Michael [abboud.michael@epa.gov]
Subject: Re: Push this around ASAP please

Sounds good.

Sent from my iPhone

> On Oct 15, 2018, at 6:31 PM, Konkus, John <konkus.john@epa.gov> wrote:
>
> Deliberative Process / Ex. 5
>
> John Konkus
> Environmental Protection Agency
> Deputy Associate Administrator
> Office of Public Affairs
>
>> On Oct 15, 2018, at 6:29 PM, Hewitt, James <hewitt.james@epa.gov> wrote:
>>
>> Deliberative Process / Ex. 5 ?
>>
>> Sent from my iPhone
>>
>>> On Oct 15, 2018, at 6:18 PM, Konkus, John <konkus.john@epa.gov> wrote:
>>>
>>> Stronger updated quote: "Dr. Etzel is currently on investigative leave because of serious reports made against her by staff regarding her ability to effectively lead the Office of Children's Health. The kinds of allegations that have been raised regarding Dr. Etzel's conduct are very concerning and prompted EPA to take action. Her attempt to use the press to distract from the allegations about her personal conduct is completely inappropriate. Any link that Dr. Etzel is attempting to draw between her personal situation and the mission of the Office of Children's Health is an attempt at misdirection. EPA is 100% committed to protecting children's health and will do everything in its power to ensure that the Office has competent leadership."
>>>
>>>

Message

From: Hewitt, James [hewitt.james@epa.gov]
Sent: 10/15/2018 10:26:59 PM
To: Konkus, John [konkus.john@epa.gov]
CC: Abboud, Michael [abboud.michael@epa.gov]
Subject: Re: Push this around ASAP please

I'll send to cama and Rene. Anyone else we're missing who hasn't been sent this?

Sent from my iPhone

> On Oct 15, 2018, at 6:18 PM, Konkus, John <konkus.john@epa.gov> wrote:
>
> "Dr. Etzel is currently on investigative leave because of serious reports made against her by staff regarding her ability to effectively lead the Office of Children's Health. The kinds of allegations that have been raised regarding Dr. Etzel's conduct are very concerning and prompted EPA to take action. Her attempt to use the press to distract from the allegations about her personal conduct is completely inappropriate. Any link that Dr. Etzel is attempting to draw between her personal situation and the mission of the Office of Children's Health is an attempt at misdirection. EPA is 100% committed to protecting children's health and will do everything in its power to ensure that the Office has competent leadership."

Message

From: Grantham, Nancy [Grantham.Nancy@epa.gov]
Sent: 9/28/2018 5:59:48 PM
To: Konkus, John [konkus.john@epa.gov]; Abboud, Michael [abboud.michael@epa.gov]; Hewitt, James [hewitt.james@epa.gov]
Subject: RE: Ruth Etzel?

Waiting for who it will be attributed to – should be soon

Nancy Grantham
Office of Public Affairs
US Environmental Protection Agency
202-564-6879 (desk)
Ex. 6 (mobile)

From: Konkus, John
Sent: Friday, September 28, 2018 1:57 PM
To: Grantham, Nancy <Grantham.Nancy@epa.gov>; Abboud, Michael <abboud.michael@epa.gov>; Hewitt, James <hewitt.james@epa.gov>
Subject: Fwd: Ruth Etzel?

This is our opportunity to strike...let's break this new statement with him.

Sent from my iPhone

Begin forwarded message:

> **Resent-From:** <Press@epa.gov>
> **From:** Kevin Bogardus <kbogardus@eenews.net>
> **Date:** September 28, 2018 at 1:52:15 PM EDT
> **To:** "Konkus, John" <konkus.john@epa.gov>, "Abboud, Michael" <abboud.michael@epa.gov>, "Hewitt, James" <hewitt.james@epa.gov>, "Block, Molly" <block.molly@epa.gov>, Press <Press@epa.gov>
> **Subject: Ruth Etzel?**
>
> Hey everyone,
>
> It's Kevin Bogardus with E&E News.
>
> I'm working on a story about Ruth Etzel, director of EPA's Office of Children's Health Protection, and her job status at the agency. I had a few questions about this, which are:
>
> -- I now understand that Etzel is no longer on administrative leave and has been reinstated at EPA. Is that accurate?
>
> -- When was Etzel reinstated at EPA? Yesterday? Today? Please be specific as possible.
>
> -- Why was Etzel placed on administrative leave? And why was Etzel reinstated at EPA?
>
> Please get back to me as soon as possible. My deadline is 4 pm EST today but the sooner you get back to me, the more it helps my reporting. Thank you for your help.
>
> **Kevin Bogardus**
> E&E News Reporter

kbogardus@eenews.net
202-446-0401 (p)
Ex. 6 (c)
202-737-5299 (f)

Follow me @KevinBogardus

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EnergyWire, ClimateWire, E&E Daily, Greenwire, E&ENews PM, E&ETV

Message

From: Hewitt, James [hewitt.james@epa.gov]
Sent: 10/1/2018 4:21:19 PM
To: Grantham, Nancy [Grantham.Nancy@epa.gov]
CC: Abboud, Michael [abboud.michael@epa.gov]; Block, Molly [block.molly@epa.gov]
Subject: OCHP report
Attachments: ChildrensHealthBooklet2018_final-2.pdf

Nancy,

Do we have a link to the report that we've been sending reporters (attached)? We'd like to post a link on the newsroom page.

James

James Hewitt
Environmental Protection Agency
Press Secretary
(202) 578-6141

PROTECTING CHILDREN'S HEALTH

OCTOBER 2018

PROTECTING CHILDREN'S HEALTH

One of the most important things we can do to protect our children's future is make sure they grow up in a healthy environment. Children are uniquely vulnerable to the potential health effects of environmental hazards found in their everyday environment. For example:

- Children crawl and play close to the ground making them more likely to be exposed to dirt and dust.
- Children explore their environment through mouthing making them more likely to be exposed to dirt and dust on their hands, toys, and other household objects.
- Children's respiratory systems are still developing and they spend more time outdoors where they can be exposed to air pollution.
- In relation to their weight children, also eat and drink more than adults, putting them at greater when exposed to contaminated water or food.
- They are more likely than adults to have asthma, which puts them at greater risk from air pollutants that exacerbate asthma.

EXECUTIVE ORDER ON THE PROTECTION OF CHILDREN FROM ENVIRONMENTAL HEALTH RISKS AND SAFETY RISKS

On April 21, 1997, the president signed the Executive Order on the Protection of Children from Environmental Health Risks and Safety Risks. This Executive Order requires all federal agencies to assign a high priority to addressing health and safety risks to children, coordinate research priorities on children's health, and ensure that their standards take into account special risks to children. The Executive Order created a President's Task Force on Environmental Health Risks and Safety Risks to Children (Task Force) to implement the Executive Order.

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The Task Force is co-chaired by the U.S. Environmental Protection Agency (EPA) and the Department of Health and Human Services (HHS) and its current priorities to improve children's environmental health are focused on **lead exposures, healthy settings, asthma disparities, and chemical exposures.**

EPA'S COMMITMENT TO CHILDREN'S HEALTH

EPA is committed to protecting children where they live, learn, and play. To that end, EPA has many initiatives currently underway in partnership with federal agencies, states, tribes, local governments, schools, community groups, medical providers, and other stakeholders. The agency understands that to be protective of children's health, as highlighted by the President's Task Force, it is essential that childhood lead exposures be reduced, children's environments be safe from environmental hazards, the risk from asthma triggers be actively reduced and harmful chemical exposures be minimized.

Through its regional programs, EPA provides grant funding to a wide range of initiatives from educating childcare professionals about providing healthy settings for children, researching effects of pregnancy exposure to environmental chemicals, deploying mobile asthma clinics, managing lead-based paint accreditation and certification programs, removing asbestos and lead-based paint, funding enforcement of lead-based paint regulations, and removing lead service lines.

The following are a few highlights of EPA's initiatives. Additional information on EPA's efforts to protect children's health is found at: https://www.epa.gov/children.

REDUCE LEAD EXPOSURES

The Center for Disease Control has stated that no safe blood lead level in children has been identified. EPA is committed to reducing lead exposures from multiple sources including: paint, water, soil contamination, and ambient air. Key agency initiatives underway include:

FEDERAL LEAD STRATEGY

EPA, along with the partner agencies of the President's Task Force, is developing the forthcoming Federal Strategy to Reduce Childhood Lead Exposures and Associated Health Impacts. The Federal Strategy is designed to improve the effectiveness and efficiency of the federal government in reducing children's lead exposures and lead-related health risks.

PROVIDING FOR REDUCING LEAD IN DRINKING WATER

- EPA received more than $9.1 billion in collective loan requests for 2018 Water Infrastructure Finance and Innovation Act Program funding. More information is available at: https://www.epa.gov/wifia.
- EPA received $30 million for grant funding under the Water Infrastructure Improvements for the Nation Act (WIIN Act), which addresses, supports and improves America's drinking water:
    - $10 million dollars for a new grant program for lead reduction projects including lead service line replacement at water systems and homes.
    - $20 million dollars for states and tribes to test drinking water for lead contamination in schools and child care programs that request it.
    - More information is available at: https://www.epa.gov/safewater/grants.

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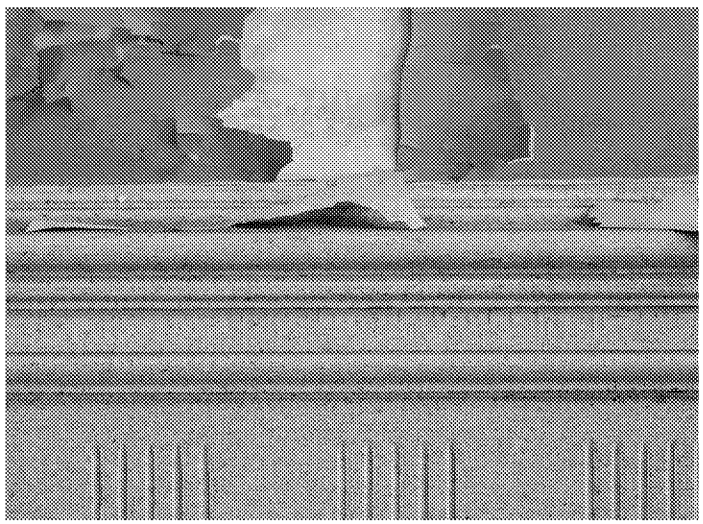
- EPA revised its 3Ts for Reducing Lead in Drinking Water in Schools and Child Care Facilities, which includes guidance on:
    - **Training school and child care officials** to raise awareness of 3Ts program and summarize the potential causes and health effects of lead in drinking water.
    - **Testing drinking water** in schools and child care to identify potential lead problems.
    - **Taking action** to reduce lead in drinking water and communicate to parents, staff, and the larger school community.
    - More information is available at: https://www.epa.gov/safewater/3Ts.

- EPA is working to revise regulations for the use of lead-free infrastructure to codify the new and more stringent definition of lead-free and to clarify how manufacturers can meet these new lead-free standards.
    - EPA issued a proposed rule in 2017. EPA is working to address comments and finalize the rule in 2019.
- EPA is also working on revisions to update the Lead and Copper Rule.
    - EPA is evaluating input recently received from state, local and tribal partners as well as the best available peer reviewed science to ensure the rule reflects the best ways to improve public health protection.
    - EPA anticipates releasing the proposal in 2019.

REDUCING EXPOSURES ASSOCIATED WITH LEAD IN PAINT

- Strengthening the standards for lead in dust is an important component of EPA's strategy to curtail childhood lead exposure.
- Title IV of the Toxic Substances Control Act (TSCA) requires EPA to establish hazard standards for lead-contaminated dust. Lead dust can be a major source of lead exposure in children. Lead dust can be generated when lead-based paint deteriorates or is disturbed (e.g., during renovation or repainting work).
- In June 2018 EPA proposed to change the dust-lead hazard standards from 40 µg/ft2 and 250 µg/ft2 to 10 µg/ft2 and 100 µg/ft2 on floors and window sills, respectively. These standards apply to most pre-1978 housing and child-occupied facilities, such as day care centers and kindergarten facilities. EPA also continues to work toward ensuring that individuals and firms conducting lead-based paint abatement, risk assessment or inspection are properly trained and certified.
- More information is available at: https://www.epa.gov/lead.



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- EPA chairs the Global Alliance to Eliminate Lead Paint, a voluntary partnership of governments, industry, and NGO's to eliminate lead paint around the world. EPA is working closely with the United Nations Environment Programme and the World Health Organization, as well as the International Paint and Printing Ink Council, the International POPs Elimination Network, the American Bar Association, and other stakeholders to help countries develop laws to address lead paint. This fall, EPA is partnering on an international project which aims to establish lead paint laws in 40 countries.
- The sixth annual International Lead Poisoning Prevention Week of Action takes place from October 21-27, 2018. The Week of Action provides an opportunity for organizations and institutions around the world to focus attention on lead. http://www.who.int/ipcs/lead_campaign/en/

REDUCING EXPOSURES TO LEAD IN SOIL

- Lead can be a relatively common soil contaminant because of past and current human activity or uses (i.e., mining, lead smelter). Children who live near or play on lead-contaminated soil can be exposed through incidental ingestion of small amounts of soil or soil-derived indoor dust. Contaminated soil can also be tracked into the home. Young children often have higher rates of soil and dust ingestion because of their unique behaviors such as crawling and hand/object-to-mouth contact.
- EPA actions to reduce childhood exposure from lead in soil include: managing lead contamination at Superfund, Resource Conservation and Recovery Act Corrective Action, and other sites through removal, remedial and corrective actions; updating the Superfund Lead-Contaminated Residential Sites Handbook; and offering technical assistance to brownfield communities to identify best management practices, and potential funding opportunities.
- More information is available at: https://www.epa.gov/superfund/lead-superfund-sites.

REDUCING EXPOSURES TO LEAD IN THE AMBIENT AIR

- EPA actions to reduce childhood exposure from lead in ambient air include: working with state and tribal air agencies to implement the National Ambient Air Quality Standard (NAAQS) for lead; evaluating the impacts of lead emissions from aircraft using leaded aviation fuel under the Clean Air Act; and conducting a research and development program to identify unleaded aviation fuels through the Piston Aviation Fuel Initiative (a partnership with the Federal Aviation Administration).
- More information is available at: https://www.epa.gov/lead-air-pollution.

INCREASING THE IDENTIFICATION OF AND ENFORCEMENT OF SOURCES NOT IN COMPLIANCE

- EPA provides grant funding to states and tribes to conduct audits of lead-based paint abatement certification programs and lead-based paint abatement activities to ensure compliance.
- EPA works to increase the public's awareness of the risks associated with childhood lead exposures by continuing to identify high-risk neighborhoods and increase work-site inspections and associated compliance assistance, as well as increase enforcement actions.
- More information is available at: https://www.epa.gov/lead/complying-lead-laws-and-regulations.

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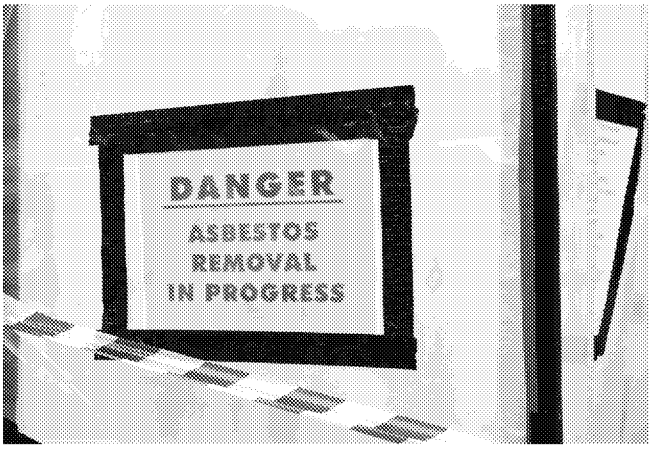
PROMOTE HEALTHY ENVIRONMENTS

EPA is committed to ensuring that children's environments are safe from environmental hazards. Key initiatives underway include:

ADDRESSING ASBESTOS EXPOSURES IN SCHOOLS



- EPA's $4.8 million TSCA Compliance Categorical Grants build environmental partnerships with states and tribes to strengthen their ability to address environmental and public health threats from toxic substances like asbestos, lead-based paint and PCBs.
- During the past eighteen months, EPA worked with the Inspector General's (IG) office on an audit of the prioritization of the TSCA Asbestos Hazard Emergency Response Act compliance monitoring program also known as the Asbestos-Containing Materials in Schools Rule. The IG's audit identified areas where EPA will utilize continual improvement to reevaluate its outreach and compliance assistance materials. EPA is committed to using all the tools in its toolbox to steadfastly maintain an asbestos compliance monitoring program with our partners.
- More information is available at: https://www.epa.gov/asbestos/asbestos-and-school-buildings.

ADDRESSING POLYCHLORINATED BIPHENYLS IN SCHOOLS

- Polychlorinated biphenyls (PCBs) are a class of synthetic organic chemicals that were widely used in building construction, including schools built between about 1950 and the late 1970s. The manufacture and use of PCBs were banned by TSCA and phased out by 1979, except for certain limited uses. PCBs are toxic and continue to be closely regulated.
- EPA developed guidance and outreach materials to assess and reduce exposure to PCBs in schools to support schools and regions in ongoing regulatory implementation and compliance.
- Each of EPA's 10 regions has a designated PCB Coordinator to oversee the proper management of PCB issues within each region. They coordinate with interested stakeholders to ensure that their region's needs are addressed and that EPA's PCB regulations are followed.
- More information is available at: https://www.epa.gov/pcbs/polychlorinated-biphenyls-pcbs-building-materials
- https://www.epa.gov/schools-healthy-buildings/renovations-and-polychlorinated-biphenyls-pcbshy-school-environment
- https://www.epa.gov/pcbs/epa-regional-polychlorinated-biphenyl-pcb-programs

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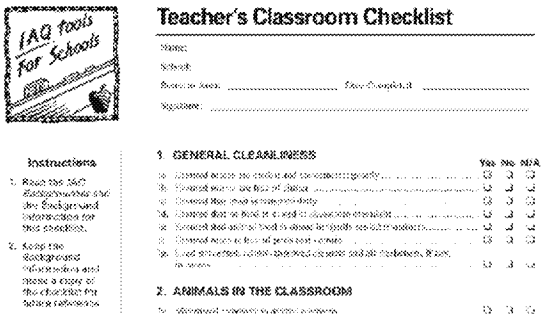
INDOOR AIR QUALITY PROGRAMS

EPA, through its national and regional indoor air programs (IAQ), provides training and technical assistance through a coordinated set of guidance, tools and assets to equip states, tribes and school districts with the resources to reduce the risks from radon, asthma triggers, mold, improper ventilation, pest (Integrated Pest Management), PCBs, lead, indoor particulate matter, and other indoor environmental health issues and in emergency response and recovery situations, such as floods, hurricanes, and wildfires.



- Specific guidance includes:
  - Indoor Air Quality Tools for Schools Action Kit
  - Indoor Air Quality Design for Schools
  - Energy Savings Plus Health Guidance for Schools
  - IAQ Tools for Schools Preventative Maintenance Tools and Resources
  - IAQ Tools for Schools Connector Network
- For more information visit: https://www.epa.gov/indoor-air-quality-iaq.
- The Indoor Air Quality Tools for Schools Action Kit is a comprehensive collection of information necessary to develop, assess, improve and implement an effective IAQ management plan at little or no cost using straightforward activities and in-house staff. The Action Kit includes information on best practices, industry guidelines, sample policies and a sample IAQ management plan. https://https://www.epa.gov/iaq-schools/indoor-air-quality-tools-schools-action-kit.
- Air Quality Flag Program: More than 120 million people in the United States live in communities with unhealthy levels of air pollution. Among those most affected are children and teens, older adults, people with heart or lung problems and people who are active outdoors. The Flag Program uses brightly colored flags based on the EPA's Air Quality Index—the AQI. Schools display the flags to inform students and staff about daily air quality conditions and use the Flag Program as part of their science curriculum. More information is available at: https://www.airnow.gov/air-quality-flag-program.
- EPA offers the School IAQ Assessment Mobile App to help schools maintain a healthy indoor environment by identifying, correcting and preventing IAQ problems. The IAQ School Assessment Mobile App provides schools access to EPA's comprehensive school IAQ management guidance and detailed walkthrough assessment checklists that address critical building-related environmental health issues. More information is available at: https://www.epa.gov/iaq-schools/school-iaq-assessment-mobile-app.
- EPA provides extensive technical assistance through web-based trainings to school districts to equip them with the tools they need to create and maintain effective indoor air quality management programs. The IAQ Master Class Professional Training series provides foundational knowledge on technical topics including mold and moisture control, ventilation, cleaning and maintenance, asthma triggers and preventive maintenance practices. More information is available at: https://www.epa.gov/iaq-schools/ondemand-training-webinars. Additionally, the IAQ Knowledge-to-Action Professional Training Webinar Series demonstrates how the knowledge gained in the IAQ Master Class Professional Training Webinar Series can be translated into actionable steps to continue improving IAQ within your school district.

BY THE NUMBERS:

In 2018, EPA educated more than 2,000 school district representatives on indoor air quality best practices.

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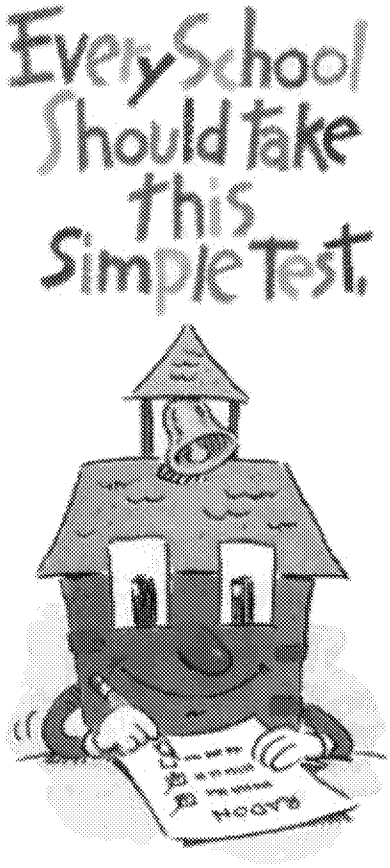
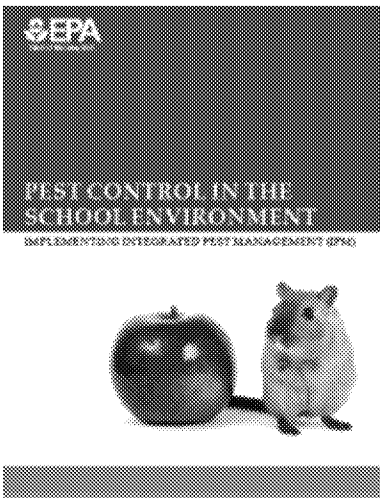
REDUCING RADON RISK

Radon is a major public health risk. It's the second leading cause of lung cancer and the leading environmental cause of cancer mortality in the U.S. State and tribal radon programs are critical to the Agency's national goal of minimizing and preventing radon-related lung cancer. States and tribes receive grant funds from EPA that help finance their radon risk reduction programs. Those receiving State Indoor Radon Grant funds must align their projects and activities with the Agency's goals which include building new schools with radon-reducing features, where appropriate, and testing and fixing existing schools when necessary. In Fiscal Year 2018, the State Indoor Radon Grant total allocation was $7,867,000. More information is available at: https://www.epa.gov/radon.

EPA has also developed and made available key guidance on testing, mitigating, and building new schools to be radon-resistant. We provide comprehensive guidance documents and produce technical webinars and conference sessions on practical radon management. To find information about radon in schools, including the publication, "Managing Radon in Schools" a document that offers a practical framework and concrete steps for managing radon from start to finish, visit https://www.epa.gov/radon/radon-schools.



INTEGRATED PEST MANAGEMENT PROGRAMS



EPA's vision is that all of our nation's students attend schools with verifiable and ongoing Integrated Pest Management Programs (IPM). Our mission is to build partnerships and collaborations to promote and support school IPM, demonstrate its value, and provide information on the tools available to schools interested in establishing new or improving existing IPM programs. More information is available at: https://www.epa.gov/managing-pests-schools/epas-approach-integrated-pest-management-schools.

BY THE NUMBERS:

EPA has awarded an estimated $6 million dollars in active grants to improve education related to the safe use of pesticides to protect communities and children.

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REDUCE ASTHMA TRIGGERS

More than six million children in the United States—an average of one out of every 12 school-aged children—have asthma. Asthma is also a leading cause of school absenteeism.

Since asthma affects so many children, asthma management should be a priority for every school. Controlling asthma as part of a comprehensive indoor air quality (IAQ) management program can lead to reduced absenteeism and increased student performance for students and staff. Follow the tips below to reduce asthma triggers and create a healthy indoor environment in your school.

Asthma triggers that affect children in schools include:

- Animal allergens
- Cockroach and pest allergens
- Mold and moisture
- Dust mites
- Outdoor air pollutants, like ozone and particle pollution or school bus diesel exhaust

EPA's coordinated approach on asthma promotes scientific understanding of environmental asthma triggers and ways to manage asthma in community settings through research, education and outreach. With federal, state and local partners, we are building the nation's capacity to control asthma and manage exposure to indoor and outdoor pollutants linked to asthma.

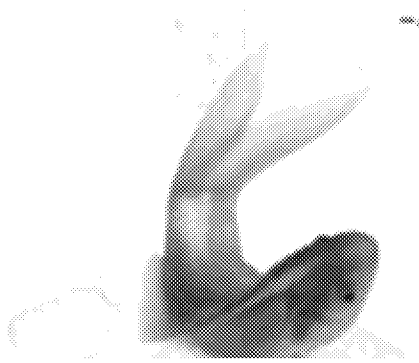
Advance public awareness and action and enable community programs to deliver sustainable in-home environmental interventions improving asthma control and saving thousands of dollars in avoided health care costs per child per year. With EPA's federal partners at CDC and HUD, we are working to advance nationally policy to support reimbursement of these in-home interventions by health plans and Medicaid. More information is available at https://www.epa.gov/asthma.

BY THE NUMBERS:

More than 1100 community-based programs participate in EPA's Asthma Community Network to share best practices and successful approaches to address asthma. www.AsthmaCommunityNetwork.org

"WHEN I HAVE AN ASTHMA ATTACK I FEEL LIKE A FISH WITH NO WATER."

–JESSE, AGE 5



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SCHOOL BUS REBATE PROGRAM

School buses travel over four billion miles each year, providing the safest transportation to and from school for more than 25 million American children every day. However, diesel exhaust from these buses has a negative impact on human health, especially for children who have a faster breathing rate than adults and whose lungs are not yet fully developed. EPA designed this rebate program to encourage school bus fleet turnover so more children can ride buses with the cleanest emissions standards or buses that have been retrofitted to reduce emissions.

BY THE NUMBERS:

In 2017, EPA awarded $8.78 million toward replacement or retrofit of 453 school buses. Cleaner buses will transport students at 143 school districts because of this grant funding.

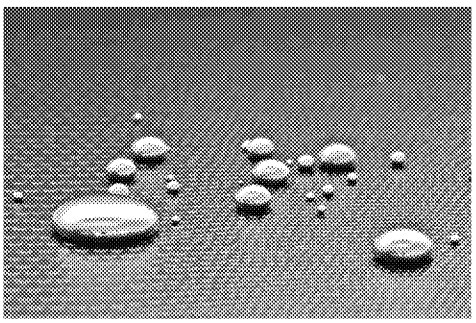
The 2018 School Bus Rebate Program will provide approximately $9.0 million to public and private fleet owners for the replacement or retrofit of older school buses.

More information is available at: https://www.epa.gov/cleandiesel/clean-school-bus.

PEDIATRIC ENVIRONMENTAL HEALTH SPECIALTY UNITS

EPA and ATSDR support this national network of academically-based experts who provide medical information and advice on environmental conditions that impact children's health. PEHSUs are active in all 10 EPA Regions and work with health care professionals, parents, schools and community groups to raise awareness about environmental health, provide guidance on reducing exposures in everyday settings and provide practical advice to help children and families cope and recover during and after floods, wildfires, chemical spills and other crises. More information is available at: https://www.pehsu.net/About_PEHSU.html

ADDRESS CHEMICAL EXPOSURES



Chemicals are used in schools for a range of activities including building maintenance and classroom learning. High schools usually have larger inventories and more hazardous chemicals than middle and elementary schools, but hazardous chemicals can be found in all schools, especially in science classes and labs (e.g., mercury), shop classes, and store rooms.

Thoughtful chemical purchasing, use and management is critical for reducing chemical exposures and costly accidents, which ultimately affect student learning and attendance. EPA offers comprehensive technical resources for safe chemical management in K-12 schools. https://www.epa.gov/schools-chemicals/toolkit-safe-chemical-management-k-12-schools

EPA's emergency response team is available 24/7 to provide technical assistance to the local authorities as well as lead investigations and response actions when necessary in schools in the event of chemical emergencies such as mercury spills and school science lab incidents. More information is available at: https://www.epa.gov/ert.

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CHILDREN'S HEALTH RESEARCH

CHILDREN'S ENVIRONMENTAL HEALTH AND DISEASE PREVENTION RESEARCH CENTERS (CHILDREN'S CENTERS)

EPA and the National Institute of Environmental Health Sciences have partnered to investigate new frontiers in the field of children's environmental health research by supporting Children's Environmental Health and Disease Prevention Research Centers.

- There are currently 5 active Centers of Excellence for Children's Environmental Health Research. All 5 centers are actively engaged in the outreach and research translation for improving the health and well-being of children in various communities.
- Impacts of this research are summarized in the Children's Environmental Health and Disease Prevention Research Centers Impact Report: Advances in protecting children's health where they live, learn, and play.

In-house research at EPA also addresses children's environmental health. Highlights of the Children's Centers and EPA research portfolio include:

- Asthma: Understanding and interventions for children and their families to better manage this chronic disease. The Children's Centers research is now moving toward exploring the links between asthma and other emerging factors, including obesity and immune function. In-house EPA research includes the impacts of hurricanes on asthma health and mold contamination.
- Birth Outcomes: The Children's Centers have identified links between environmental pollutants and preterm birth and lower birthweight and engaged with communities to address concerns about how the environment may be impacting pregnancy and how to prevent exposures. In-house EPA research is identifying alternative testing strategies that are faster, cheaper to evaluate impacts of chemicals on the developing child.

- General Neurodevelopment: Researchers have engaged with parents, childcare providers, and decision makers to help them identify ways to reduce exposures that can affect cognitive and behavioral outcomes and improve children's neurodevelopment. Children's Centers findings have helped develop public health policy and interventions aimed at protecting pregnant women and their babies from toxic environmental exposures. In-house EPA research is developing rapid, economical methods to screen chemical compounds for their potential to interfere with neural development. In addition, important research related to environmental risk factors for childhood leukemia, autism and spectrum disorder, obesity, and other important health concerns is on-going. More details can be found at: https://www.epa.gov/research-grants/niehsepa-childrens-environmental-health-and-disease-prevention-research-centers.

ED_002399_00003034-00011

SCHOOL SITING GUIDELINES

EPA's voluntary school siting guidelines can help local school districts, local education agencies (LEAs), and community members evaluate environmental factors to make the best possible school siting decisions. The guidelines should be used prior to: deciding whether to renovate the existing school, or build a new school on the current site or on a new site; acquiring land for school facilities; using legacy property already owned by the LEA; leasing space; and/renovating or reusing existing properties and structures already owned by the LEA. More information is available at: https://www.epa.gov/schools/basic-information-about-school-siting-guidelines.

BY THE NUMBERS:

EPA and NIEHS have together invested more than $300 million in 24 Children's Centers to expand our knowledge on the environmental exposures and health outcomes.

CHILDREN'S HEALTH PROTECTION ADVISORY COMMITTEE

The Children's Health Protection Advisory Committee (CHPAC) is a body of external researchers, academicians, health care providers, environmentalists, state and tribal government employees, and members of the public who advise EPA on regulations, research, and communications related to children's health. The CHPAC acts in the public interest and supports EPA in performing its duties and responsibilities under Executive Order 13045 of April 21, 1997 (62 Fed Reg 19885; April 23, 1997). The legal authority for CHPAC is the Federal Advisory Committee Act (FACA), 5 USC App 2. Members of the CHPAC serve voluntarily and the CHPAC meets about two or three times per year to provide specific recommendations to the EPA administrator. More information is available at: https://www.epa.gov/children.

PARTNERSHIPS

Protection of children through exposure reduction and being responsive in addressing past exposures is most effective if accomplished through collaboration. EPA will continue to forge partnerships with other federal agencies, as well as with other public and private partners to extend the reach and effectiveness of efforts and to enhance the public's awareness, understanding, and ability to effect change to address these issues. Leveraging each partner's unique expertise, resources (human, facilities, funding mechanisms), perspectives, and diverse stakeholder networks greatly improves the ability to create effective and productive collaborations to address children's environmental health issues.

ED_002399_00003034-00012

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Message

From: Jones, Enesta [Jones.Enesta@epa.gov]
Sent: 10/9/2018 8:15:40 PM
To: Konkus, John [konkus.john@epa.gov]; Block, Molly [block.molly@epa.gov]; Abboud, Michael [abboud.michael@epa.gov]; Hewitt, James [hewitt.james@epa.gov]
CC: Jones, Enesta [Jones.Enesta@epa.gov]; Grantham, Nancy [Grantham.Nancy@epa.gov]; Daguillard, Robert [Daguillard.Robert@epa.gov]; Lynn, Tricia [lynn.tricia@epa.gov]
Subject: Open Inquiries, 10/9/18

***** No E15 inquiries included. *****

+ CNN
+ GCN
+ Miami Herald
+ E&E
+ All Things Considered

From: "Jones, Enesta" <Jones.Enesta@epa.gov>
Date: October 9, 2018 at 3:44:54 PM EDT
To: Press <Press@epa.gov>
Subject: For Review: CNN (Matthew Gannon) re follow-up on drinking water violations (DDL: 10/9)

OW-rec response:

On background: Over 92 percent of the population supplied by community water systems receives drinking water that meets all health-based standards all of the time. For summary information of EPA's most recent data, to include violations by system type and population, please visit: https://obipublic11.epa.gov/analytics/saw.dll?PortalPages

To develop a comprehensive data query please visit:https://ofmpub.epa.gov/apex/sfdw/f?p=108:200::::::

From: "Gannon, Matthew" <Matthew.Gannon@turner.com>
Date: October 9, 2018 at 2:55:36 PM EDT
To: "Jones, Enesta" <Jones.Enesta@epa.gov>
Subject: Additional question for CNN

Hi Enesta,

I had one additional question or figure that I was hoping to confirm with you. According to an NRDC report that is based on EPA water data from 2015, "There were more than 80,000 reported violations of the Safe Drinking Water Act by community water systems. Nearly 77 million people were served by more than 18,000 of these systems with violations in 2015. These violations included exceeding health-based standards, failing to properly test water for contaminants, and failing to report contamination to state authorities or the public."

I just wanted to confirm that these numbers were in fact correct.

Below is a link to the full report.

https://www.nrdc.org/resources/threats-tap-widespread-violations-water-infrastructure

Thanks,

Matt Gannon

CNN Original Video

office: 404-878-1314

+++

From: "Daguillard, Robert" <Daguillard.Robert@epa.gov>
Date: October 9, 2018 at 1:34:25 PM EDT
To: Press <Press@epa.gov>
Subject: FW: Robin Thottungal leaving EPA

Third Floor?

Cheers, R.

Robert Daguillard
Office of Media Relations
U.S. Environmental Protection Agency
Washington, DC
+1 (202) 564-6618 (O)
+1 Ex. 6 (M)

From: Matthew Leonard [mailto:mleonard@1105media.com]
Sent: Tuesday, October 09, 2018 12:59 PM
To: Jones, Enesta <Jones.Enesta@epa.gov>; Press <Press@epa.gov>
Subject: Re: Robin Thottungal leaving EPA

Hi,

I just wanted to follow up on this to see if anyone could confirm this transition.

Thanks,

Matt_____

Matt Leonard

Reporter at GCN.com

(828) 508-0236

@matt_lnrd

From: Matthew Leonard
Sent: Tuesday, October 9, 2018 12:35:27 PM
To: jones.enesta@epa.gov; press@epa.gov
Subject: Robin Thottungal leaving EPA

Hi,

I just wanted to confirm that Robin Thottungal is leaving the EPA as the Chief Data Scientist for the agency. I was wondering when his last day was and any reasons for leaving. Who will be taking over in this role? What projects will this person be taking over?

Thank you,

Matt

_____

Matt Leonard

Reporter at GCN.com

(828) 508-0236

@matt_lnrd

+++

From: "Harris-Young, Dawn" <Harris-Young.Dawn@epa.gov>
Date: October 9, 2018 at 3:19:06 PM EDT
To: Press <Press@epa.gov>
Cc: "Grantham, Nancy" <Grantham.Nancy@epa.gov>
Subject: Fwd: Miami Herald | Delegates to Katowice

Inquiry below.

Sent from my iPhone

Begin forwarded message:
From: "Dooley, Christine" <cdooley@mcclatchy.com>
Date: October 9, 2018 at 3:13:57 PM EDT
To: Harris-Young.Dawn@epa.gov
Subject: Miami Herald | Delegates to Katowice
Hi Dawn,
I am writing from the Miami Herald. We are hosting a Florida Priorities Summit immediately following mid-term elections. Given the new IPCC report and implications for Florida, I am looking to identify delegates who will attend the next Climate Change Conference in Katowice. Can you help direct me to where such a list might exist? Ideally, we are looking for Florida organizations that will attend.
Thank you so much,

Christine Dooley
Executive Producer, Events

+++

From: "awittenberg@eenews.net" <awittenberg@eenews.net>
Date: October 9, 2018 at 12:19:43 PM EDT
To: "Grantham, Nancy" <Grantham.Nancy@epa.gov>, "Konkus, John" <konkus.john@epa.gov>
Cc: Press <Press@epa.gov>
Subject: RE: Background on OCHP and Dr. Firestone bio

Hi Nancy and John,

Thanks for setting up the interview with Michael Firestone today. I have a few questions for the press office below. My deadline is 11 a.m. tomorrow.

- We noticed that the organizational chart for EPA's regional realignment included with Admin. Wheeler's Sept. 6 email did not include children's health in the immediate office area, but the organizational chart posted on the intranet site linked in Henry Darwin's Oct. 3 email does include children's health. What changed? Why did EPA decide to include children's health in the later organizational chart?

- I also saw that for the past two fiscal years, the Trump administration has proposed significantly decreasing OCHP's budget (from about $5.4 million to $1.4 million), and thirding its staff (from 15.4 FTEs to 4.9 FTEs). I will be mentioning that in the article and wanted to give you the opportunity to respond as there have been questions about OCHP's future.

- What is the status of the federal lead strategy? What is the hold up? I know OCHP and Dr. Etzel had been working on it as part of the President's Task Force on Environmental Health Risks and Safety Risks to Children.

- Is there any update regarding Ruth Etzel's status? How long is her administrative leave expected to last? At what point would EPA look to replace her permanently?

- I've talked to a number of people who have worked closely with OCHP and they all sing Michael Firestone's praises. But a few have also said they believe a pediatrician would be better equipped to run OCHP. Do you have any response to that criticism?

Thanks again,

Ariel

Ariel Wittenberg
E&E News reporter

+++

From: Tim Peterson <TPeterson@npr.org>
Date: October 9, 2018 at 11:54:39 AM EDT
To: "Abboud, Michael" <abboud.michael@epa.gov>
Cc: Press <Press@epa.gov>
Subject: [SPAM-Sender] Michael Honeycutt interview request for TODAY from NPR producer Tim Peterson

Hello Mr Abboud,

I'm writing from NPR's flagship newsmagazine All Things Considered to see if Michael Honeycutt with the EPA's Science Advisory Committee would be available to come on our air today and talk about the UN's climate change report. We are very interested in having a conversation about how the agency has been receiving the report, and thought Michael would be a great person to share that perspective. We would ideally like to pre-tape a 10-15 minute conversation in the next 2-3 hours, and are flexible to work around his schedule. Please let me know if this is a possibility – we can talk about connectivity details if it might work time-wise.

Thank you, we look forward to hearing from you.

Kind regards,

Tim Peterson

Producer, NPR's All Things Considered

202-513-3925
Ex. 6

Message

From: Timothy Cama [tcama@thehill.com]
Sent: 10/15/2018 11:20:05 PM
To: Hewitt, James [hewitt.james@epa.gov]
CC: Konkus, John [konkus.john@epa.gov]; Press [Press@epa.gov]
Subject: Re: CBS story on Ruth Etzel

Thanks, I'll update it.

--
Timothy Cama, Staff writer
The Hill
(202) 695-6245
Secure: Ex. 6

On Mon, Oct 15, 2018 at 6:32 PM Hewitt, James <hewitt.james@epa.gov> wrote:

Tim, updated statement from an EPA spokesperson below:

"Dr. Etzel is currently on investigative leave because of serious reports made against her by staff regarding her ability to effectively lead the Office of Children's Health. The kinds of allegations that have been raised regarding Dr. Etzel's conduct are very concerning and prompted EPA to take action. Her attempt to use the press to distract from the allegations about her personal conduct is completely inappropriate. Any link that Dr. Etzel is attempting to draw between her personal situation and the mission of the Office of Children's Health is an attempt at misdirection. EPA is 100% committed to protecting children's health and will do everything in its power to ensure that the Office has competent leadership."

Sent from my iPhone

On Oct 15, 2018, at 3:27 PM, Timothy Cama <tcama@thehill.com> wrote:

Thanks John.

--
Timothy Cama, Staff writer
The Hill
(202) 695-6245
Secure: Ex. 6

On Mon, Oct 15, 2018 at 3:18 PM Konkus, John <konkus.john@epa.gov> wrote:

"Dr. Etzel is currently on administrative leave because of serious reports made against her by staff regarding her leadership of the Office of Children's Health. It's unfortunate that she has decided to go to the press in what appears to be an attempt to distract from these allegations. The Agency believes Dr. Etzel's characterizations misrepresent the situation; this is about allegations of a person's actions, not the Office. Everyone involved should allow the Agency to continue looking into the allegations of inappropriate conduct, in the meantime the

Office of Children's Health and our work to reduce lead exposure continue to be cornerstones of the EPA's work, just as they have always been." – EPA Spokesperson

From: Timothy Cama [mailto:tcama@thehill.com]
Sent: Monday, October 15, 2018 2:19 PM
To: Press <Press@epa.gov>
Subject: CBS story on Ruth Etzel

Hi folks-

Do you want to weigh in on this CBS story on Ruth Etzel beyond the previous statement? https://www.cbsnews.com/news/epa-childrens-health-official-ruth-etzel-epa-kids-disposable/

Thanks.

--

Timothy Cama, Staff writer

The Hill

(202) 695-6245

Secure: Ex. 6

Message

From: Konkus, John [konkus.john@epa.gov]
Sent: 10/15/2018 10:15:52 PM
To: Kevin Bogardus [kbogardus@eenews.net]; Abboud, Michael [abboud.michael@epa.gov]; Hewitt, James [hewitt.james@epa.gov]; Block, Molly [block.molly@epa.gov]; Press [Press@epa.gov]
Subject: Re: New statement on Ruth Etzel?

Stronger updated quote: "Dr. Etzel is currently on investigative leave because of serious reports made against her by staff regarding her ability to effectively lead the Office of Children's Health. The kinds of allegations that have been raised regarding Dr. Etzel's conduct are very concerning and prompted EPA to take action. Her attempt to use the press to distract from the allegations about her personal conduct is completely inappropriate. Any link that Dr. Etzel is attempting to draw between her personal situation and the mission of the Office of Children's Health is an attempt at misdirection. EPA is 100% committed to protecting children's health and will do everything in its power to ensure that the Office has competent leadership."

John Konkus
Environmental Protection Agency
Deputy Associate Administrator
Office of Public Affairs

John Konkus
Environmental Protection Agency
Deputy Associate Administrator
Office of Public Affairs

On Oct 15, 2018, at 3:43 PM, Konkus, John <konkus.john@epa.gov> wrote:

Deliberative Process / Ex. 5

Thank you.

From: Kevin Bogardus [mailto:kbogardus@eenews.net]
Sent: Monday, October 15, 2018 3:43 PM
To: Konkus, John <konkus.john@epa.gov>; Abboud, Michael <abboud.michael@epa.gov>; Hewitt, James <hewitt.james@epa.gov>; Block, Molly <block.molly@epa.gov>; Press <Press@epa.gov>
Subject: New statement on Ruth Etzel?

Hey everyone,

It's Kevin Bogardus with E&E News.

I'm seeing that there is a new EPA statement on Ruth Etzel in reaction to the CBS News interview. Can you pass it along to me as well?

Please let me know. Thanks for your help.

Kevin Bogardus
E&E News reporter
kbogardus@eenews.net
202-446-0401 (p)
Ex. 6 (c)
202-737-5299 (f)

Follow me @KevinBogardus

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EnergyWire, ClimateWire, E&E Daily, Greenwire, E&ENews PM

Message

From: Konkus, John [konkus.john@epa.gov]
Sent: 10/15/2018 10:14:38 PM
To: Ebbs, Stephanie [Stephanie.Ebbs@abc.com]
CC: Hewitt, James [hewitt.james@epa.gov]; Press [Press@epa.gov]
Subject: Re: Dr. Etzel on lead

Stronger update to the updated quote: "Dr. Etzel is currently on investigative leave because of serious reports made against her by staff regarding her ability to effectively lead the Office of Children's Health. The kinds of allegations that have been raised regarding Dr. Etzel's conduct are very concerning and prompted EPA to take action. Her attempt to use the press to distract from the allegations about her personal conduct is completely inappropriate. Any link that Dr. Etzel is attempting to draw between her personal situation and the mission of the Office of Children's Health is an attempt at misdirection. EPA is 100% committed to protecting children's health and will do everything in its power to ensure that the Office has competent leadership."

John Konkus
Environmental Protection Agency
Deputy Associate Administrator
Office of Public Affairs

On Oct 15, 2018, at 5:42 PM, Konkus, John <konkus.john@epa.gov> wrote:

> Yes that's fine. Thanks.
>
> John Konkus
> Environmental Protection Agency
> Deputy Associate Administrator
> Office of Public Affairs
>
> On Oct 15, 2018, at 5:41 PM, Ebbs, Stephanie <Stephanie.Ebbs@abc.com> wrote:
>
>> Thanks John. My editor approved the update so the version on the site will include the statement soon. Just one thing, I need to attribute the statement to someone by name. Would that be you?
>>
>> Stephanie Ebbs
>>
>> ABC News-Washington
>>
>> (office)202-222-7271
>>
>> (cell) Ex. 6
>>
>> @stephebbs
>>
>> ---
>>
>> **From:** Konkus, John <konkus.john@epa.gov>
>> **Sent:** Monday, October 15, 2018 3:19:46 PM
>> **To:** Ebbs, Stephanie; Hewitt, James

Cc: Press
Subject: RE: Dr. Etzel on lead

Deliberative Process / Ex. 5

From: Ebbs, Stephanie [mailto:Stephanie.Ebbs@abc.com]
Sent: Monday, October 15, 2018 11:41 AM
To: Konkus, John <konkus.john@epa.gov>; Hewitt, James <hewitt.james@epa.gov>
Subject: Dr. Etzel on lead

Hey guys,

I'm following up on Dr. Etzel's interview with CBS, specifically her comments that the national lead strategy was put on hold. I'd like to follow up with someone on this today if possible, please give me a call when you can (I'm about to head to a noon meeting so feel free to shoot me a text if I don't respond).

Stephanie Ebbs

ABC News-Washington

(office)202-222-7271

(cell) Ex. 6

@stephebbs

Message

From: Busch, Nicole [BuschN@cbsnews.com]
Sent: 10/15/2018 8:45:56 PM
To: Konkus, John [konkus.john@epa.gov]
CC: Block, Molly [block.molly@epa.gov]; Lynn, Tricia [lynn.tricia@epa.gov]; Press [Press@epa.gov]
Subject: RE: CBS NEWS INQUIRY - ON DEADLINE

Thank you, John.
We will update our online story.
Would EPA be willing to do a sit down interview with us?

From: Konkus, John <konkus.john@epa.gov>
Sent: Monday, October 15, 2018 3:21 PM
To: Busch, Nicole <BuschN@cbsnews.com>
Cc: Block, Molly <block.molly@epa.gov>; Lynn, Tricia <lynn.tricia@epa.gov>; Press <Press@epa.gov>
Subject: RE: CBS NEWS INQUIRY - ON DEADLINE

Nicole: We would appreciate your updating your article online with the following statement please:

"Dr. Etzel is currently on administrative leave because of serious reports made against her by staff regarding her leadership of the Office of Children's Health. It's unfortunate that she has decided to go to the press in what appears to be an attempt to distract from these allegations. The Agency believes Dr. Etzel's characterizations misrepresent the situation; this is about allegations of a person's actions, not the Office. Everyone involved should allow the Agency to continue looking into the allegations of inappropriate conduct, in the meantime the Office of Children's Health and our work to reduce lead exposure continue to be cornerstones of the EPA's work, just as they have always been." – EPA Spokesperson

Thank you.

From: Konkus, John
Sent: Sunday, October 14, 2018 4:16 PM
To: Busch, Nicole <BuschN@cbsnews.com>
Cc: Block, Molly <block.molly@epa.gov>; Lynn, Tricia <lynn.tricia@epa.gov>; Press <Press@epa.gov>
Subject: Re: CBS NEWS INQUIRY - ON DEADLINE

Here is a statement on Dr. Etzel: "Although EPA does not customarily comment on personnel matters, due to circulating misinformation, the Director of EPA's Office of Children's Health Protection was placed on leave to give the Agency the opportunity to review allegations about the Director's leadership of the office." **– EPA Chief of Staff, Ryan Jackson**

here is a statement on the Office of Children's Health: "Children's health is and has always been a top priority for the Trump Administration and the EPA in particular is focused on reducing lead exposure in schools, providing funds for a cleaner school bus fleet, and cleaning up toxic sites so that children have safe environments to learn and play. These are just a few of the dozens of objectives the EPA's Office of Children's Health will continue work on during this administration." — EPA Spokesperson

We would ask you to review and include in reporting these three press releases we have recently sent on the subject:

https://www.epa.gov/newsreleases/childrens-health-month-epa-offers-nearly-30-million-support-cleaner-water-and-air

https://www.epa.gov/newsreleases/acting-administrator-wheeler-reaffirms-commitment-protecting-childrens-health

https://www.epa.gov/newsreleases/childrens-health-month-epas-commitment-promoting-healthy-environments-where-children

Thank you,

John Konkus
Environmental Protection Agency
Deputy Associate Administrator
Office of Public Affairs

On Oct 14, 2018, at 3:34 PM, Busch, Nicole <BuschN@cbsnews.com> wrote:

> Hi Molly and Tricia,
> CBS News correspondent, Anna Werner, and I are working on a piece scheduled to air on CBS This Morning tomorrow morning regarding Dr. Ruth Etzel being placed on administrative leave. We sent a request for comment to EPA's main media email address last Wednesday and spoke with Mr. Darwin on Thursday at the Children's Health Protection Advisory Committee meeting (speaking briefly with you both as well).
> We would like to reiterate if there are additional comments you would like to provide concerning Dr. Etzel's leave and or to criticism from both Dr. Etzel and other children's health advocates that the EPA is not doing enough to regulate risks posed to children's health or making it a priority-- please do so by tonight.
>
> Please respond by 9pm EST this evening.
> Thank you,
> Nicole
> 212-975-2383

Message

From: Jones, Enesta [Jones.Enesta@epa.gov]
Sent: 10/10/2018 6:57:07 PM
To: Press [Press@epa.gov]
Subject: Fwd: Request **on deadline** from CBS National News

This reporter left an "urgent" message on the main press line at 2:13 p.m. today.

From: "Werner, Anna" <WernerA@cbsnews.com>
Date: October 10, 2018 at 2:16:06 PM EDT
To: "Lynn, Tricia" <lynn.tricia@epa.gov>
Cc: Press <Press@epa.gov>
Subject: Request **on deadline from CBS National News**

Hi Ms. Lynn,

I'm reaching out to you since you are the listed contact for Children's Health on the EPA press page.

I'm working on a story about the situation of the head of EPA's Office of Children's Health, Dr. Ruth Etzel, being placed on administrative leave.

Is there someone there who could do an on-camera interview, or answer questions, about Dr. Etzel and the reasons for the administrative leave?

I am on deadline so would appreciate a response as soon as possible. I can be reached on my cell phone at Ex. 6
Ex. 6

Thanks in advance for your assistance.

Best,

Anna Werner
National Correspondent
CBS News – New York
Email: wernera@cbsnews.com
Cell: Ex. 6

Message

From: Grantham, Nancy [Grantham.Nancy@epa.gov]
Sent: 10/10/2018 3:05:14 PM
To: awittenberg@eenews.net
CC: Press [Press@epa.gov]
Subject: RE: Background on OCHP and Dr. Firestone bio

Thanks

Nancy Grantham
Office of Public Affairs
US Environmental Protection Agency
202-564-6879 (desk)
Ex. 6 (mobile)

From: awittenberg@eenews.net [mailto:awittenberg@eenews.net]
Sent: Wednesday, October 10, 2018 11:01 AM
To: Grantham, Nancy <Grantham.Nancy@epa.gov>
Cc: Press <Press@epa.gov>
Subject: RE: Background on OCHP and Dr. Firestone bio

Thanks, Nancy. Just FYI, the story will probably be held until tomorrow.

Ariel

From: Grantham, Nancy <Grantham.Nancy@epa.gov>
Sent: Wednesday, October 10, 2018 7:33 AM
To: Ariel Wittenberg <awittenberg@eenews.net>
Cc: Grantham, Nancy <Grantham.Nancy@epa.gov>; Press <Press@epa.gov>
Subject: FW: Background on OCHP and Dr. Firestone bio

Hi Ariel,

Nice to see you yesterday.

Please find answers to your follow up questions below.

Thanks

Nancy Grantham
Office of Public Affairs
US Environmental Protection Agency
202-564-6879 (desk)
Ex. 6 (mobile)

From: Ariel Wittenberg [mailto:awittenberg@eenews.net]
Sent: Tuesday, October 09, 2018 12:20 PM
To: Grantham, Nancy <Grantham.Nancy@epa.gov>; Konkus, John <konkus.john@epa.gov>
Cc: Press <Press@epa.gov>
Subject: RE: Background on OCHP and Dr. Firestone bio

Hi Nancy and John,

Thanks for setting up the interview with Michael Firestone today. I have a few questions for the press office below. My deadline is 11 a.m. tomorrow.

- We noticed that the organizational chart for EPA's regional realignment included with Admin. Wheeler's Sept. 6 email did not include children's health in the immediate office area, but the organizational chart posted on the intranet site linked in Henry Darwin's Oct. 3 email does include children's health. What changed? Why did EPA decide to include children's health in the later organizational chart?

As indicated in both Acting Administrator Wheeler's message and Chief of Operations Darwin's messages, there is a Regional Implementation Working Group that is developing the regional realignment package. The chart attached to Acting Administrator Wheeler's message was the high level view of the proposed organization. Over time, the group worked on a more detailed chart that included incorporating the multi-media programs such as Environmental Education, and Children's Health and the geographical programs into the proposed organization.

- I also saw that for the past two fiscal years, the Trump administration has proposed significantly decreasing OCHP's budget (from about $5.4 million to $1.4 million), and thirding its staff (from 15.4 FTEs to 4.9 FTEs). I will be mentioning that in the article and wanted to give you the opportunity to respond as there have been questions about OCHP's future.

The FY 2019 President's Budget focuses agency efforts on activities required by statute. The Budget supports work in EPA's Office of Children's Health Protection which would continue to coordinate and advance the protection of children's environmental health throughout the agency as a critical part of EPA's mission. In coordination with the President's Task Force on Environmental Health Risks and Safety Risks to Children (Task Force), the EPA will continue to support the planned *Federal Strategy to Reduce Childhood Lead Exposures and Associated Health Impacts.* Additionally, the EPA will continue to enhance the understanding of health care providers and the public about the important role environmental toxicants play in the development of asthma, attention deficit/hyperactivity disorder (ADHD), obesity, diabetes, cancer and other childhood illnesses that may set the trajectory of health throughout adult life.

- What is the status of the federal lead strategy? What is the hold up? I know OCHP and Dr. Etzel had been working on it as part of the President's Task Force on Environmental Health Risks and Safety Risks to Children.

- As a co-chair of the President's Task Force, EPA is striving to finalize and release the Federal Lead Strategy in a timely manner in collaboration with other Task Force Principals, including HUD, HHS and fourteen other federal partners.
- EPA continues to make children's health a top priority and is committed to protecting children from lead exposures in their environments.
- EPA has made tremendous progress in improving air and water quality and reducing children's lead exposures and lead-related health risks.

<u>Efforts to Reduce Exposures to Lead</u>

- In honor of Children's Health Month during the month of October, EPA announced the availability of nearly $30 million to support safe drinking water and cleaner air.

- Availability of $20 million available for states and tribes to test for lead in drinking water at schools and childcare facilities.
- Approximately $9 million in rebates to public school bus fleet owners to help them replace older school buses with cleaner, more modern vehicles.

- EPA recently announced the availability of $5.5 billion in loans through the Water Infrastructure Finance and Innovation Act (WIFIA) program, which could leverage over $11 billion in water infrastructure projects including those that may reduce exposure to lead.
- In support of critical research efforts, EPA awarded nearly $4 million in grant funding for researching strategies to detect and control lead exposure in drinking water, and identifying opportunities to mitigate lead exposure from drinking water including at home and community levels, especially among children and pregnant women.
- EPA is working on revisions to update the Lead and Copper Rule based on input received from our state, local and tribal partners as well as the best available peer-reviewed science to ensure the rule reflects the best ways to improve public health protection.
- In June 2018, EPA proposed to change the dust-lead hazard standards from 40 µg/ft2 and 250 µg/ft2 to 10 µg/ft2 and 100 µg/ft2 on floors and window sills, respectively. Standards apply to most pre-1978 housing and child-occupied facilities, such as day care centers and kindergarten facilities.
- EPA will continue to provide firm and individual certifications for safe work practices for lead-based paint abatement and renovation and repair efforts.

- Is there any update regarding Ruth Etzel's status? How long is her administrative leave expected to last? At what point would EPA look to replace her permanently?

"Although EPA does not customarily comment on personnel matters, due to circulating misinformation, the Director of EPA's Office of Children's Health Protection was placed on leave to give the Agency the opportunity to review allegations about the Director's leadership of the office." – **EPA Chief of Staff, Ryan Jackson**

- I've talked to a number of people who have worked closely with OCHP and they all sing Michael Firestone's praises. But a few have also said they believe a pediatrician would be better equipped to run OCHP. Do you have any response to that criticism?

Please see Henry Darwin's note below to the members of the Children's Health Protection Advisory Committee.

From: Darwin, Henry
Sent: Thursday, September 27, 2018 1:53 PM
To: caroline@ceh.org; deanna.scher@state.mn.us; ebraff-guajardo@sierrahealth.org; joel.forman@mssm.edu; grediamd@gmail.com; robertsj@musc.edu; jcordero@uga.edu; Froelicher.jm@pg.com; lori.byron@gmail.com; jlowry@cmh.edu; mhowett@umass.edu; ucsfpehsumiller@gmail.com; mlittle@health.nyc.gov; Barbara.Morrissey@doh.wa.gov; olga@ewg.org; gregory.a.ornella@sherwin.com; pinar.kodaman@yale.edu; bratspies@mail.law.cuny.edu; rubin.patterson@howard.edu; stephenaowens@gmail.com; tneltner@edf.org
Cc: Hackel, Angela <Hackel.Angela@epa.gov>
Subject: Office of Children's Health Protection

Children's Health Protection Advisory Committee:

First, I want to thank you for your efforts to inform EPA on important issues related to children's health. Second, I would like clear up any misunderstandings regarding EPA's ongoing commitment to the protection of children's health. Despite of what you may have heard in the media or from people who are unaware of what is actually going on, EPA remains fully committed to protect children's health and will soon announce several

initiatives. Dr. Etzel was not placed on leave to diminish EPA's Children's Health Program. Children's Health is an extremely important program for the Agency and therefore EPA is seeking a strong leader to move the program forward.

EPA recognizes one of the most important things we can do to protect our children's future is to make sure they grow up in healthy environments. So, I want to reaffirm one of our top priorities at EPA continues to be the protection of children where they live, learn, and play. As you know, EPA has many initiatives currently underway via critical partnerships to protect children's health, including reducing lead exposures, promoting health environments, reducing asthma triggers, and addressing harmful chemical exposures. On October 1st, EPA will release a booklet highlighting these initiatives.

EPA through its Office of Children's Health Protection and in coordination with our program offices will continue to address the unique vulnerabilities of children. We are very proud of the ongoing work and understand there is a lot more to be done. As such, EPA appreciates your efforts to inform existing and future children's health initiatives.

Thank you for your commitment to the protection of children's health. We look forward to seeing you at the CHPAC meeting on October 11.

If you have any questions, please contact Angela Hackel, the designated federal official for CHPAC, at <mailto:hackel.angela@epa.gov> hackel.angela@epa.gov.

Sincerely,

Henry Darwin
Acting Deputy Administrator and Chief of Operations
United States Environmental Protection Agency

Thanks again,

Ariel

Ariel Wittenberg
E&E News reporter
awittenberg@eenews.net
202-737-4557
@arielwittenberg

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Energywire, Climatewire, Greenwire, E&E Daily, E&E News PM, E&ETV

From: Grantham, Nancy <Grantham.Nancy@epa.gov>
Sent: Tuesday, October 09, 2018 9:06 AM
To: Konkus, John <konkus.john@epa.gov>
Cc: Ariel Wittenberg <awittenberg@eenews.net>
Subject: Re: Background on OCHP and Dr. Firestone bio

Hi Ariel - I will meet you at the north entrance at 11 am. Thanks

Sent from my iPhone

On Oct 9, 2018, at 9:01 AM, Konkus, John <konkus.john@epa.gov> wrote:

> In person will be fine. Nancy will be in touch.
>
> John Konkus
> Environmental Protection Agency
> Deputy Associate Administrator
> Office of Public Affairs
>
> On Oct 9, 2018, at 8:48 AM, Ariel Wittenberg <awittenberg@eenews.net> wrote:
>
>> I thought this was in person, which is my strong preference. As we discussed Friday, I was planning to come to the north entrance at 11 am. Nancy, please let me know if that still works.
>>
>> I'll be on my cell this morning— Ex. 6
>>
>> Ariel
>>
>> Ariel Wittenberg
>> Reporter, E&E News
>> 202-737-4557
>> awittenberg@eenews.net
>>
>> Sent from my iPhone
>>
>> On Oct 9, 2018, at 8:13 AM, Konkus, John <konkus.john@epa.gov> wrote:
>>
>>> Ariel: I'm looping you in the Nancy who will take it from here. This can be in person at EPA HQ or over the phone.
>>>
>>> Thank you,
>>>
>>> John
>>>
>>> **From:** Ariel Wittenberg [mailto:awittenberg@eenews.net]
>>> **Sent:** Friday, October 5, 2018 3:47 PM
>>> **To:** Konkus, John <konkus.john@epa.gov>
>>> **Subject:** RE: Background on OCHP and Dr. Firestone bio
>>>
>>> Thanks!
>>>
>>> Ariel
>>>
>>> **From:** Konkus, John <konkus.john@epa.gov>
>>> **Sent:** Friday, October 05, 2018 3:41 PM
>>> **To:** Ariel Wittenberg <awittenberg@eenews.net>
>>> **Subject:** Background on OCHP and Dr. Firestone bio

Dr. Firestone's (bio attached) regulatory work in the past has included:

- ? Certification & Training (C&T) of Pesticide Applicators [FIFRA]
- ? Pesticide Worker Protection Regulations
- ? 2008 Lead NAAQS

Ongoing regulations he's recently worked on include:

- ? National Primary Drinking Water Regulations: Regulation of Perchlorate
- ? Endangerment Finding for Lead Emissions from Piston-Engine Aircraft Using Leaded Aviation Gasoline
- ? Certification of Pesticide Applicators (CPA) Rule; Reconsideration of the Minimum Age Requirements
- ? Agricultural Worker Protection Standard (WPS); Reconsideration of Several Requirements Incl. Rescinding Childhood Age Restrictions

Regulatory workgroups other OCHP staff are currently participating on other include:

- ? "Lead; Renovation, Repair, and Painting Program for Public and Commercial Buildings [TSCA Section 402(c)(3)]"
- ? National Primary Drinking Water Regulations for Lead and Copper: Regulatory Revisions
- ? Lead; Residential Lead Dust Hazard Standards [TSCA Section 403]
- ? Trichloroethylene (TCE) - TSCA Section 6(a); aerosol degreasing and spot cleaning in dry cleaning facilities
- ? Trichloroethylene (TCE); Rulemaking Under TSCA §6(a); Vapor Degreasing
- ? Paint Removers - Methylene Chloride (MC) and N-Methylpyrrolidone (NMP) - TSCA Section 6(a)
- ? Cyanotoxin Ambient Water Quality Criteria for Recreational Waters
- ? Regulation of Persistent, Bioaccumulative and Toxic (PBT) Chemicals under TSCA 6 (h)
- ? Regulatory Determinations for CCL 4
- ? National Primary Drinking Water Regulations: Group Regulation of Carcinogenic Volatile Organic Compounds (VOCs)
- ? "Polychlorinated Biphenyls (PCBs); Reassessment of Use Authorizations [TSCA Section 6(e)]"
- ? "Lead Wheel Weights; Regulatory Investigation [TSCA Section 21]"

- PM NAAQS Review
- Review of National Ambient Air Quality Standards (NAAQS) for Sulfur Dioxide (SO2)

Message

From: Konkus, John [konkus.john@epa.gov]
Sent: 9/26/2018 11:16:08 AM
To: Kevin Bogardus [kbogardus@eenews.net]
CC: Abboud, Michael [abboud.michael@epa.gov]; Hewitt, James [hewitt.james@epa.gov]; Block, Molly [block.molly@epa.gov]; Press [Press@epa.gov]
Subject: Re: Ruth Etzel?

Thanks for pointing that out Kevin. I'll be having words with Coral now as I never confirmed anything and gave her the same response I just gave you.

> "We do not comment on personnel matters." -- Donna Vizian, Principal Deputy Assistant Administrator, Office of Administration and Resources Management

On Sep 26, 2018, at 7:10 AM, Kevin Bogardus <kbogardus@eenews.net> wrote:

> Thanks John. Big help. I really appreciate it.
>
> Any chance you can confirm that Etzel was placed on administrative leave? You did so in this New York Times story (https://www.nytimes.com/2018/09/26/climate/epa-etzel-children-health-program.html).
>
> Please let me know. Thanks again for your help.
>
> -Kevin
>
> Sent from my iPhone
>
> On Sep 26, 2018, at 7:06 AM, Konkus, John <konkus.john@epa.gov> wrote:
>
>> "We do not comment on personnel matters." -- Donna Vizian, Principal Deputy Assistant Administrator, Office of Administration and Resources Management
>>
>> "Headquarters has a number of specialty focused offices including the children's health, environmental justice, civil rights, and small business offices and these offices will continue to be a part of headquarters and regional organizations. Children's health is and has always been a top priority for the Trump Administration and the EPA in particular is focused on reducing lead exposure in schools, providing funds for a cleaner school bus fleet, and cleaning up toxic sites so that children have safe environments to learn and play." – John Konkus, EPA spokesman
>>
>> Sent from my iPhone

On Sep 26, 2018, at 6:55 AM, Kevin Bogardus <kbogardus@eenews.net> wrote:

Hey everyone,

It's Kevin Bogardus with E&E News.

I'm working on a story about Ruth Etzel, director of EPA's Office of Children's Health Protection, and her job status at the agency. I had a few questions about this, which are:

— I understand that Etzel was put on administrative leave yesterday. Is that accurate?

— Why was Etzel put on administrative leave?

— Does EPA plan to eliminate or downsize its Office of Children's Health Protection?

Please get back to me as soon as possible. My deadline is noon EST today but the sooner you get back to me, the more it helps my reporting. Thank you for your help.

-Kevin

Sent from my iPhone

Message

From: Lynn, Tricia [lynn.tricia@epa.gov]
Sent: 10/10/2018 2:35:36 PM
To: Press [Press@epa.gov]; Comm Directors and Alternates [Comm_Directors_and_Alternates@epa.gov]; Regional Public Affairs Directors [Regional_Public_Affairs_Directors@epa.gov]; AO-OCIR Everyone [AOOCIR_Everyone@epa.gov]; AO OPA Internal Communications [AO_OPA_Internal_Communications@epa.gov]
Subject: FW: Children's Health Month: EPA's Commitment to Promoting Healthy Environments

In the newsroom: https://www.epa.gov/newsreleases/childrens-health-month-epas-commitment-promoting-healthy-environments-where-children

CONTACT: press@epa.gov

Children's Health Month: EPA's Commitment to Promoting Healthy Environments Where Children Live, Learn, and Play

WASHINGTON (October 10, 2018) — The U.S. Environmental Protection Agency (EPA), in its ongoing celebration of children's health month, is highlighting the Agency's commitment to children's health and research.

"Children's health is a top priority at EPA, and we have made tremendous progress improving air and water quality and helping kids and families lead healthier lives," said EPA Acting Administrator Andrew Wheeler. **"In recognition of National Children's Health Month, EPA is highlighting the availability of its many programs dedicated to improving air quality, reducing lead exposure, and protecting the health and wellbeing of children."**

Children are uniquely vulnerable to the potential health effects of environmental hazards because their bodies are still growing and developing. Their daily interactions with the environment, such as crawling and playing close to the ground, may potentially increase their exposures to different environmental health impacts like dirt and dust.

Select EPA activities that address children's healthy environments include:

INDOOR AIR QUALITY PROGRAMS

EPA, through its national and regional indoor air quality (IAQ) programs, provides states, tribes, and school districts with training, technical assistance, and other resources to reduce health risks. Such risks are varied and include, radon, asthma triggers, mold improper ventilation, pests (Integrated Pest Management), PCBs, lead, and indoor particulate matter, among other indoor environmental health issues. Extra considerations are also made for emergency response and recovery situations, such as those health risks brought on by disasters like floods, hurricanes, and wildfires. For example, in Fiscal Year 2018, the State Indoor Radon Grant total allocation was $7,867,000 (radon is the second leading cause of lung cancer and the leading environmental cause of cancer mortality in the U.S).

ADDRESSING EXPOSURES IN SCHOOLS

EPA's $4.8 million Toxics Substance Control Act (TSCA) Compliance Categorical Grants will build environmental partnerships with states and tribes to strengthen their ability to address environmental and public health threats from toxic substances like asbestos, lead-based paint, and PCBs.

ADDRESSING POLYCHOLORINATED BIPHENYLS IN SCHOOLS

EPA has developed guidance and outreach materials as part of Agency efforts to assess and reduce exposure to polychlorinated biphenyls (PCBs) in schools. PCBs are class of synthetic organic chemicals that were widely used in building construction built between approximately 1950 and the late 1970s.

CHILDREN'S HEALTH RESEARCH

Since 1998, EPA and the National Institute of Environmental Health Sciences (NIEHS) have partnered to investigate new frontiers in the field of children's environmental health research by funding NIEHS/EPA Children's Environmental Health and Disease Prevention Research Centers.
There are currently 13 active children's centers. All 13 centers are engaged in the outreach and research translation for improving the health and well-being of children in various communities. Through their groundbreaking work, the Children's Centers have pushed the boundaries of clinical, field, and laboratory-based research. The research has been disseminated through thousands of publications in peer-reviewed journals. The research findings lay a critical foundation for reducing health risks and improving quality of life for children. These centers compliment and expand on EPA's in-house research related to children's environmental health.

ADDITIONAL INFORMATION

Learn more information about indoor air quality programs, at: https://www.epa.gov/indoor-air-quality-iaq.

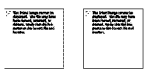
Learn more about how about how EPA is reducing radon risk at: https://www.epa.gov/radon.

Learn more about how EPA is addressing asbestos exposures in schools at: https://www.epa.gov/asbestos/asbestos-and-school-buildings.

Learn more about how EPA is addressing polychlorinated biphenyls in schools at:
https://www.epa.gov/pcbs/polychlorinated-biphenyls-pcbs-building-materials.
https://www.epa.gov/schools-healthy-buildings/renovations-and-polychlorinated-biphenyls-pcbshy-school-environment.
https://www.epa.gov/pcbs/epa-regional-polychlorinated-biphenyl-pcb-programs.

Learn more about Children's Health Research at: https://www.epa.gov/research-grants/niehsepa-childrens-environmental-health-and-disease-prevention-research-centers.

NIEHS/EPA Children's Environmental Health and Disease Prevention Research Centers Impact Report: Protecting children's health where they live, learn, and play:
https://www.epa.gov/sites/production/files/2017-10/documents/niehs_epa_childrens_centers_impact_report_2017_0.pdf?pdf=Childrens-Center-Report



If you would rather not receive future communications from Environmental Protection Agency, let us know by clicking here.
Environmental Protection Agency, 1200 Pennsylvania Avenue NW, Washington, DC 20460 United States

Message

From: schafer, joan [schafer.joan@epa.gov]
Sent: 9/27/2018 2:06:08 PM
To: Grantham, Nancy [Grantham.Nancy@epa.gov]; Press [Press@epa.gov]
CC: Nitsch, Chad [Nitsch.Chad@epa.gov]
Subject: FW: EPA Mid-Atlantic Region Headlines - Thursday, September 27, 2018

(FYI - the articles about Tradepoint Atlantic stem from yesterday's event whereby our DRA attended on behalf of EPA; this cleanup is a milestone in the overall cleanup of the Sparrows Point facility.)

From environmental hazard to water feature: Tradepoint Atlantic touts cleanup of polluted canal at former steel mill

BALTIMORE SUN For at least 60 years, a man-made ditch at the Sparrows Point steel mill carried stormwater and polluted discharge from steelmaking operations across the vast property. Known as the Tin Mill Canal, it was once filled with murky water that deposited contaminants in the soil around it. The canal represents one of the biggest environmental challenges for Tradepoint Atlantic, the company that bought the old mill and is turning the site into an industrial campus. Company officials say the canal will flow through a new retail center on the property. Since January, contractors have been gradually removing the contaminated soil and re-lining the canal bed. On Wednesday, Tradepoint officials showed off their progress to government regulators and the news media. We have a lot of work to do, no doubt," said Eric Gilbert, Tradepoint Atlantic's chief development officer. But he said the cleanup of Tin Mill Canal marks a "major milestone" in the company's effort to undo a century of environmental damage to the Sparrows Point peninsula. ... "There's real progress being made here," said Ben Grumbles, Maryland's secretary of the environment. "It's gratifying to see the progress Tradepoint is making." Some environmentalists have questions about the work. Two advocacy groups — the Chesapeake Bay Foundation and Blue Water Baltimore — have raised concerns that the cleanup of the canal doesn't address groundwater that may be contaminated via seepage from the canal over the years. That groundwater eventually filters out to nearby Bear Creek. Paul Smail, an attorney with the bay foundation, said his group has been pressing the U.S. Environmental Protection Agency to require a thorough evaluation of possible polluted groundwater, but has "hit a brick wall" on that front."You need to do this now because the remediation and construction is happening apace," Smail said in an interview. Cecil Rodrigues, deputy regional administrator for the EPA, said a groundwater study is being planned, and said that if groundwater needs to be cleaned up, it can still happen even as more of the property gets paved and covered with buildings. Rodrigues said the EPA's priority is for Tradepoint to fix sources of pollution, "then we can work on historical contamination that exists." ...

Shutdown averted, but Interior and EPA still in limbo

GREENWIRE / E&E NEWS President Trump won't force a government shutdown when the new fiscal year begins next week, but EPA, the Interior Department and a host of other agencies aren't likely to have funding finalized until December. Trump told reporters after a meeting with international leaders in New York yesterday, "We're going to keep the government open." He has for weeks toyed with a possible shutdown because Congress has yet to fully fund his plans for a U.S.-Mexico border wall. The president is now expected to sign spending legislation to avert a break in federal funding that the House overwhelmingly backed yesterday, 361-61. The Senate easily approved it last week. That so-called minibus includes the fiscal 2019 Defense, Labor-Health and Human Services, and Education spending bills. It also has a continuing resolution for other agencies through Dec. 7. Energy and water programs got money in a separate minibus. Without the latest legislation, much of government would have to shut down Monday. Both parties have warned for weeks the decision would be a huge political gamble with the midterm elections less than 50 days away. Top appropriators in both the House and Senate said yesterday they were about out of time to move another minibus by Monday that would contain the Interior-EPA, Transportation-Housing and Urban Development, Agriculture, and Financial Services spending bills. Senate Appropriations Chairman Richard Shelby (R-Ala.) first suggested yesterday that Congress would "punt" on the minibus legislation until after a post-lame-duck session. But then after voting, Shelby

walked back the remark, telling reporters that offers were still being exchanged between House and Senate negotiators... Calvert stressed he still believes an Interior-EPA bill will be completed for fiscal 2019 rather than forcing agencies to rely on stopgap funding for the entire year. Both parties might ultimately gain by waiting until after the elections. Republicans, especially House conservatives, could continue to make the argument to voters that they are fighting for provisions in the bill that would ease endangered species rules and environmental regulations....

Trump's plan to roll back vehicle emission standards gets an airing in Pittsburgh

STATE IMPACT PENNSYLVANIA Local officials, environmentalists and health experts sounded off Wednesday in Pittsburgh on the Trump administration's proposal to roll back a signature Obama-era climate policy, with many testifying that they want the stricter vehicle emission standards to stay in place. Requirements for automakers to improve gas mileage and reduce tailpipe emissions through 2025 took effect under President Barack Obama. But the Environmental Protection Agency and the Department of Transportation under President Donald Trump have proposed freezing them at 2020 levels under the "Safer Affordable Fuel-Efficient Vehicles" rule. The agencies are also considering revoking states' abilities to set their own vehicle emission limits. California has a waiver to set stricter standards than the federal government, and about a dozen other states — including Pennsylvania — have followed suit. The EPA and DOT held a series of hearings on the matter this week, culminating in Pittsburgh. As many as 140 people were scheduled to testify at the event. Ken Kimmell, president of the nonprofit Union of Concerned Scientists, urged regulators to reconsider the rollback. "These car standards that are in place are working really well," he said. "They are saving people money at the pump, they are cutting down our dependence upon burning oil, and they are cutting in a significant way our greenhouse gas emissions." The Trump administration says newer cars are safer, and the proposal will make them more affordable, which in turn will reduce crash fatalities. The Union of Concerned Scientists, among other groups, contests that argument.

Federal employee health-care premiums to rise 1.5 percent on average for 2019

WASHINGTON POST The enrollee share of premiums in the health-care program for federal employees and retirees will increase by 1.5 percent on average in 2019, although there will be decreases in some plans, including in the two Blue Cross and Blue Shield options that account for nearly two-thirds of enrollees, the government announced Wednesday. Further, Blue Cross and several other plans will offer a new third option in the Federal Employees Health Benefits Program, the largest employer-sponsored health insurance program in the nation, the Office of Personnel Management said. The FEHBP is open to almost all federal employees, while federal retirees can continue coverage if they were covered for the five years before retiring. It has about 4 million enrollees and about an equal number of covered spouses and children up to age 26. The large majority of the plans — 265 will be available in 2019 — are health maintenance organizations or fee-for-service plans available only in certain areas. There are 16 nationwide plans, most of them available to all enrollees, although several have limits.

Justice programs restore lives, communities, the Chesapeake Bay

CHESAPEAKE BAY JOURNAL Behind a chain-link fence topped with razor wire, inmates tend a large plant nursery and vegetable garden. The large expanse dotted with black nursery pots and plants of various sizes grows right outside of the Howard County (MD) Department of Corrections. The beds of vegetables will become part of jail meals or given to a local food pantry. It is a place for respite, sunshine and fresh air, where minimum security inmates can help the communities they will return to someday, by potting, watering and weeding plants. The native plants growing are destined to become part of Howard County's stormwater control program. Young residents, ages 16 to 25, turn the nursery stock into rain gardens, swales and native plant landscapes as part of a summer employment program that teaches them the basics of green infrastructure installations. "We want to create a workforce pipeline from the jail to sustainable green infrastructure careers," said Lori Lilly, executive director of Howard EcoWorks, the nonprofit that runs both programs. "The vision is for the workforce program to start while people are in still in jail focusing on plants, water and soil." Workforce development and restorative justice programs help busy public works departments or stormwater

managers get their work done while teaching participants valuable work skills. As communities strive to create more green spaces while reducing polluted stormwater by installing green infrastructure, the need for trained employees will grow. Natural landscaping or green infrastructure includes such practices as rain gardens and swales, which mimic nature by using plants and trees to filter, retain and absorb water instead of allowing it to flow quickly from surfaces into waterbodies...

Wide Range Of Groups Gather To Talk About Protecting Delaware Watershed

ATLANTIC CITY PRESS CAPE MAY — Rodale Institute's Diana Martin traveled from her company headquarters in Kutztown, Pennsylvania, to be part of the sixth annual Delaware River Watershed Forum on Tuesday. Best known for promoting organic farming practices, Rodale helps farmers improve soil health and stop using chemical fertilizers, herbicides and pesticides, Martin said. Covering about 14,000 square miles of New Jersey, Delaware, Pennsylvania and New York, the Delaware watershed is the source of drinking water for more than 15 million people, including those in New York City and Philadelphia. Protecting it from pollution is essential to keeping communities here healthy, according to the Coalition for the Delaware River Watershed. As part of that focus, the coalition's 131-member organizations work together to create a healthier watershed, to improve the physical and economic well being of communities there. "It's a new focus for us," said Martin of recently joining the coalition. Previously, Rodale stayed more with agricultural initiatives, but the group has realized it has a lot in common with water-quality advocates, wildlife groups and others working to improve the health of the watershed. A watershed is a term for the area that drains into a particular river through tributaries and other smaller bodies. "There are 15,000 farms in the watershed. It's the biggest land use," Martin said. Agricultural runoff from conventional farming practices is a leading source of pollution there, she said. Organic practices such as crop rotation and cover crop planting can greatly improve water quality, as can the use of other techniques to reduce or eliminate pesticide and herbicide use. And those practices hold onto soil and water better, resulting in less runoff into streams that find their way to the Delaware, Martin said. Everyone benefits from cleaner water, said New Jersey Audubon President and CEO Eric Stiles. "People have broad interests here. They vary by geography, membership and age, but one thing we have in common is a shared vision and shared values," said Stiles. "Swimmable rivers, healthy fish and wildlife for all, and clean drinking water for all — these are, in essence, what we are pursuing."...

PENNSYLVANIA

PHILADELPHIA INQUIRER

Discovery Center Brings Nature Trail, Exhibits, Zip Lines To Fairmount Park Reservoir For the past 25 years, Philadelphia's largest man-made lake lay hidden in the woods, surrounded by cyclone fencing and a thick layer of native plants. The only visitors to the 37-acre East Park Reservoir tended to be ducks (lots and lots of ducks), turtles, foxes, and other wildlife. Occasionally, a few bird-watchers would sneak up to the area, too, to observe the nearly 200 species of birds that migrate to and from of the Strawberry Mansion ecosystem. Thanks to a partnership between Audubon Pennsylvania and the Philadelphia Outward Bound School, that's all about to change. On Saturday, Sept. 29, the serene and pristine body of water will officially reopen to the public alongside the new, 16,000-square-foot Discovery Center, dedicated to nature conservation and leadership development. The public is invited to test-drive the site in a free opening-day Discovery Day celebration Saturday from 11 a.m. to 3 p.m. Activities include bird walks, live bird presentations, a make-your-own native seed ball demo, arts and crafts, and rides on a 300-foot zip line for visitors 12 years and up. (Sign up on-site for time slots between 11:45 a.m. and 3 p.m.) There will also be Outward Bound-type challenges designed to develop teamwork, communication, and leadership skills...

Trolleys in the garden: New landscape and cafe transform bleak West Philly junction Warning: As you emerge from the SEPTA trolley tunnel at 40th Street into the bright light of day, you may feel momentarily disoriented. What was once a vast concrete plateau, crisscrossed by a tangle of trolley tracks, has been transformed over the last few months into a luxuriant expanse of meadow flowers, native shrubs and Princeton Elms. It's as if you had somehow slipped through a

wormhole and arrived in an entirely different sector of the universe. Luckily, it's still located in West Philadelphia...

PITTSBURGH POST-GAZETTE

September Closing In As One Of Wettest On Record For Pittsburgh September is quickly shaping up as one of the wettest months on record — and 2018 as one of the most rain-drenched, period. Precipitation that hasn't let up since Monday is expected to morph into heavy rain showers and isolated thunderstorms on Wednesday, according to the National Weather Service in Pittsburgh. The region has gotten about 44 inches of rain so far this year — about 15 inches above normal, said weather service meteorologist Lee Hendricks. "And we still have three months left," he said. The record for annual rainfall — set in 2004, the year of Hurricanes Ivan and Frances — is 57.41 inches. Right now, 2018 is 15th on the list of wettest years (that is, since records started being kept in 1836). September itself is turning out to be a rather soggy month. Pittsburgh has seen 8.28 inches of rain so far this month and ranks third among the wettest Septembers. Compare that again to ...

Letter: PA Wildlife, Parks Depend On Reauthorization Of Federal Land & Water Conservation Fund In Pennsylvania, we are blessed with some amazing outdoor opportunities. I was lucky to grow up here and be exposed to fishing and hunting among Pennsylvania's forests and waters. An important but not often publicized conservation program has helped protect many places we know and love throughout Pennsylvania — and it soon may go away. For over 50 years, the federal Land and Water Conservation Fund (LWCF) has supported opportunities to get outdoors across the state, including places like the Allegheny National Forest and the Appalachian National Scenic Trail, as well as parks and playgrounds across the state. Growing up, I frequented outdoor spaces that have been touched by LWCF like Mount Pisgah and Moraine State Park to hike and view wildlife. I started hunting in my early 20s and discovered a deeper appreciation for public lands as I began to explore state game lands in search of whitetail deer, turkeys, squirrels and rabbits. Over 50 state game lands in Pennsylvania have acquired land through LWCF, providing Pennsylvania sportsmen and women like myself ample hunting opportunities on public land...

PITTSBURGH TRIBUNE REVIEW

Allegheny County Councilwoman Proposes Registry Of Natural Gas Drilling An Allegheny County Councilwoman has introduced legislation she says will make it easier for the public to find out where fracking is occurring in the county. Anita Prizio, D-O'Hara, introduced legislation during Tuesday's meeting to require companies holding oil and gas leases to register the leases in a format that the public can see and is user friendly. It would create the Allegheny County Oil and Gas Lease Registry. Since 2010, the Allegheny County Deeds Office has not input the the street addresses and parcel identification numbers of leased land, a news release from Prizio said. "The lack of this critical information makes it virtually impossible for local governments to develop their state mandated comprehensive plans, and appropriate zoning ordinances," Prizio said in a news release. "Public safety agencies can also use this information to appropriately plan for the impacts of drilling and fracking in Allegheny County." As of May, the Pennsylvania Department of Environmental Protection issued permits for 258 fracking wells in the county, up from just three in 2006, Prizio said in the release. More than half of the 258 wells are operating, while an additional 117 are yet to be drilled, the release said citing FracTracker Alliance, a nonprofit. Several members of environmental groups and former Allegheny County Council President Jim Burn spoke in support of the legislation during Tuesday's meeting. "This is just a common sense piece of legislation in my opinion," Burn told the council. "It's simply asking if I go to the Allegheny County web page and I want to see in the borough of Millvale where I live … I can look to see where the pads are. I can see where it's being done, if it's being done. And if I'm thinking about investing in any specific community in this county, I think it's a (relevant) piece of information I need to know. I think it's a (relevant) piece of information for elected officials to know."...

Acting EPA Administrator To Speak At 2018 SHALE INSIGHT Conference Acting EPA Administrator Andrew Wheeler will be the keynote speaker for the 2018 Shale Insight conference in Pittsburgh on Oct. 24. His speech, sometime between 9-10:45 a.m., is titled "The New EPA: Fostering Responsible Environmental Protection with American Business." "Wheeler will discuss his effort to bring clarity and predictability to EPA policy actions and share his plans to foster economic development while streamlining the regulatory process," Shale Insight organizers said. "(He) has a deep understanding of the importance of balancing regulations designed to protect the environment with the need for economic stability." Wheeler, formerly the EPA deputy administrator, took office as acting administrator in July, following the resignation of Scott Pruitt for ethical reasons. He must still be confirmed by the Senate. A native of Fairfield, Ohio, near Cincinnati,

Wheeler is a former coal industry lobbyist and legislative aide on the Senate Committee on Environment and Public Works. The closing keynote speaker will be Adm. Michael Rogers, recently retired director and commander of the National Security Agency and U.S. Cyber Command. His address on energy independence and national security will be at 12 p.m. Oct. 25. The Shale Insight conference, scheduled for Oct. 23-25 at the David L. Lawrence Convention Center, bills itself as the foremost gathering on shale development and public policy in Pennsylvania, West Virginia and Ohio. Former White House press secretary Sean Spicer was the keynote speaker in 2017. Then-presidential nominee Donald Trump spoke at the conference in 2016.

Upper Allegheny Expects To Meet Deadline For Long-Term Sewage Plans The Upper Allegheny Valley Joint Sanitary Authority's engineer said required information for its long-term plan will be provided to the state by an Oct. 8 deadline. Engineer Ed Schmitt of Gibson Thomas Engineering said information the Department of Environmental Protection (DEP) wants is being compiled now. "We have to have a response to DEP by Oct. 8 and we've asked all the communities to get back to us with information by Oct. 1," Schmitt said. He said the information being requested involves the measures taken by communities to reduce inflow and infiltration — the flow of storm water into the sanitary sewer system. It is part of a consent governing the authority's long-term control plan that deals with steps being taken to control pollution flowing into waterways due to overflow conditions at sewage treatment plants, especially during heavy rains. Schmitt said the authority and its communities are under a mandate to capture 85 percent of the sewage flow that occurs during the year and under certain storm conditions. According to Schmitt, the inflow and infiltration data DEP wants already was provided to the authority by its member communities: Tarentum, Harrison, Brackenridge and East Deer...

Shamokin Dam 400 MW Coal-Fired Power Plant To Be Demolished SHAMOKIN DAM - A landmark former 400-megawatt coal-fired power generation plant visible from Routes 11/15 in Snyder County is to be demolished. The demolition of the building and its four 300-foot-high smoke stacks is expected to take two years because it will require asbestos removal first, said Ed Griegel, vice president of operations for the owner, Sunbury Generation. The plant was built by PP&L, now PPL, and went into operation in 1949. The utility sold it to Wisconsin Public Service in 1999 and Sunbury Generation bought it in 2006. The plant ceased operations in 2014. Adjacent to the old facility is Panda Hummel Station, a 1,124 megawatt natural gas-fired generation plant that went into operation in June. Panda Power Funds of Dallas, Texas, operates the facility that was developed with Sunbury Generation. It is producing enough electricity to serve well over a million homes, general manager Mike Stahr said. Its three stacks are only 230 feet high, he noted. Compared with the retired coal-burning facility, it is producing 180 percent more power while using approximately 97 percent less cooling water, he said. Sulphur dioxide and nitrogen oxide emissions have been reduced by more than 90 percent, he added. Its fuel is Marcellus Shale natural gas transported to the plant via a 34.4-mile pipeline from the commonwealth's northern tier. The same pipeline would serve a second, slightly larger natural gas power plant on the property that is in the design stage, Griegel said...

Point Park U. Watershed Documentary to Premiere On WQED Oct. 11 The quality of Pennsylvania's 83,000 miles of waterways — or lack thereof — is the subject of a new documentary, "Downstream," produced by Point Park University's School of Communication Environmental Journalism program. The 30-minute documentary addresses the "serious threat" the quality of those waterways face, from active and abandoned coal mines to acid rain, aging infrastructure, urban development, industrial pollution, and even the impacts of seemingly mundane human activities such as lawn care, according to a news release. The film premieres 8 p.m. Oct. 11 on WQED . Point Park University will host a screening event, followed by a panel discussion at the school's Center for Media Innovation . "Clean water is essential for economic development in healthy communities. Even if you don't consider yourself an 'environmentalist,' water quality affects everyone because the costs associated with cleaning water ultimately trickles down to all of us," Gina Catanzarite, the film's writer-producer, says in the release. A part-time faculty member in Point Park's school of communication, Catanzarite worked on the production with Point Park graduates Glenn Syska, director of photography and editor, and Zak Boyle, second unit photographer and assistant editor. "It's easy to get discouraged by the sight of orange water contaminated by acid mine drainage or litter floating alongside geese. But we were also inspired by the people we met filming 'Downstream,' and we hope viewers will recognize how simple changes in behaviors can make a big difference and how supporting policy change in how we protect our watersheds can have a huge impact now and for future generations," Catanzarite says...

STATE IMPACT PENNSYLVANIA

Trump's plan to roll back vehicle emission standards gets an airing in Pittsburgh Local officials, environmentalists and health experts sounded off Wednesday in Pittsburgh on the Trump administration's proposal to roll back a signature Obama-era climate policy, with many testifying that they want the stricter vehicle emission standards to stay in place. Requirements for automakers to improve gas mileage and reduce tailpipe emissions through 2025 took effect under President Barack Obama. But the Environmental Protection Agency and the Department of Transportation under President Donald Trump have proposed freezing them at 2020 levels under the "Safer Affordable Fuel-Efficient Vehicles" rule. The agencies are also considering revoking states' abilities to set their own vehicle emission limits. California has a waiver to set stricter standards than the federal government, and about a dozen other states — including Pennsylvania — have followed suit. The EPA and DOT held a series of hearings on the matter this week, culminating in Pittsburgh. As many as 140 people were scheduled to testify at the event. Ken Kimmell, president of the nonprofit Union of Concerned Scientists, urged regulators to reconsider the rollback. "These car standards that are in place are working really well," he said. "They are saving people money at the pump, they are cutting down our dependence upon burning oil, and they are cutting in a significant way our greenhouse gas emissions." The Trump administration says newer cars are safer, and the proposal will make them more affordable, which in turn will reduce crash fatalities. The Union of Concerned Scientists, among other groups, contests that argument. At an earlier hearing in Michigan, automakers said they want to continue building cleaner cars and don't want to freeze the standards, but they would like greater flexibility within the regulations because drivers are buying more trucks and SUVs, which are less fuel-efficient...

ALLENTOWN MORNING CALL

Household Hazardous Waste Difficult To Dispose Of In Lehigh Valley

ALTOONA MIRROR

Mosquito Spraying Planned For Blair Bedford Counties Spraying for mosquito control is planned for select areas of Blair and Bedford counties this evening, weather permitting. Around sunset, the Blair County West Nile Virus Program start truck-mounted spraying in the Loop area, including Reservoir Road and Loop Road in Blair Township and between Monument and Willow in the Fort Fetter area in Blair Township and Hollidaysburg. Around the same time, the Pennsylvania Department of Environmental Protection's West Nile Virus Control Program will conduct spraying in parts of Snake Spring Township in Bedford County. Both operations are targeted at controlling the population of adult mosquitos and the possible spread of the West Nile Virus. The alternate date for both spayings is Friday...

ERIE TIMES NEWS

West Nile Virus Cases Rise In Erie County A wet, warm summer across Pennsylvania has sparked a resurgence in West Nile virus. The mosquito-borne illness, which can cause rare but potentially life-threatening brain inflammation in humans, has been detected in 40 people across the state. It's the most human cases in at least five years. No human cases have been reported in Erie County in 2018 but the county has seen a higher number of infected birds and mosquitoes than it has since 2012. Nine birds and 27 mosquito samples have tested positive for West Nile. "It's all about the weather," said Karen Tobin, Erie County's West Nile virus coordinator. "The warmer it is, the more Culex mosquitoes we have that spread West Nile."...

Sen. Laughlin's Case For Sunday Hunting State senator believes Pennsylvania is losing out to New York, Ohio and other states that offer opportunities for a wide range of game throughout the weekend. Thousands of hunters will head afield Saturday for the start of Pennsylvania's archery deer season. But come Sunday, they will be home — unable to hunt. State Sen. Dan Laughlin, R-49th Dist., wants to change that. To that end, he will be among those attending the Hunters United for Sunday Hunting rally and meeting Sunday at the Pennsylvania Game Commission headquarters in Harrisburg. The event will run from 1 to 4 p.m. "It's about time to change," said Laughlin, who is a hunter. He said he believes the lack of Sunday hunting is hurting Pennsylvania businesses and is contributing to the decline in license sales across the state. He proposed Senate Bill 1202 in May to clear the way for Sunday hunting someday. The bill specifically transfers regulatory authority of game laws from the state Legislature to the Game Commission. It also strengthens trespassing laws, something he hopes will win converts from the Pennsylvania Farm Bureau, which has long opposed Sunday hunting. "Ultimately, I believe the Game Commission should be the body that decides our hunting seasons, and those

(seasons) should include Sundays for everything — spring turkey and all fall game," he said. Sunday hunting is already permitted for foxes, crows and coyotes.

LANCASTER NEWSPAPERS

Biting midges and EHD confirmed as source of ongoing deer deaths in parts of Chester, Berks counties The Pennsylvania Game Commission has confirmed recent deaths of deer in northern Chester and southern Berks counties were caused by epizootic hemorrhagic disease. Since Aug. 29, dozens of dead deer have been found in the affected area. Game wardens continue to investigate new reports and collect and submit tissue samples from deer that are not in advanced stages of decomposition. "We appreciate the public's concern and involvement and will continue to investigate deer deaths reported at new locations, so we can monitor the severity of this year's outbreak," said Bruce Metz, director of the agency's southeast regional office...

WILLIAMSPORT SUN-GAZETTE

County to accept $800k to repurpose underutilized space The Lycoming County commissioners will take action Thursday to accept an $800,000 revolving loan fund grant to help clean up and make useable abandoned or otherwise underutilized buildings and properties, known as brownfields. The grant, from the federal Environmental Protection Agency, will work as a revolving loan, meaning qualified applicants will be awarded a certain dollar amount to be paid back to the county with low interest rates. The Lycoming County commissioners will take action Thursday to accept an $800,000 revolving loan fund grant to help clean up and make useable abandoned or otherwise underutilized buildings and properties, known as brownfields. The grant, from the federal Environmental Protection Agency, will work as a revolving loan, meaning qualified applicants will be awarded a certain dollar amount to be paid back to the county with low interest rates. "Every dollar we give out, we could get back," said Jenny Picciano, community development and lead planner. Some of the funds also may be used in the form of grants, Picciano added. The planning department and commissioners will work together to form a committee including real estate and financial aid-savvy community members to help select qualified property owners to receive funds. The contract period for the grant lasts through November of 2023, she said. Examples of brownfield locations that have been restored through this initiative include the Brodart neighborhood, the Pajama Factory and even the Kohl's department store. In another matter, the commissioners will consider several personnel actions, including hiring Chelsea Myers, currently Williamsport's municipal planner, as a full-time replacement hazard reduction planner. Myers previously was approved to start Oct. 1 as the county's replacement zoning officer. However, due to a new vacancy and Myers' overqualified status, she instead is being considered for the hazard reduction planner position, said Commissioner Rick Mirabito. The city has no plan to replace Myers at this point, officials said. In addition to Mirabito, Commissioners Jack McKernan and Tony Mussare were present. The next meeting will be held at 10 a.m. Thursday in Executive Plaza.

LAW 360

EPA Seeks $1.5M For Philadelphia Superfund Cleanup (Subscription required) (September 26, 2018, 6:04 PM EDT) -- The Environmental Protection Agency sued in Pennsylvania federal court Tuesday to demand that a former operator of a toxic metal scrap yard pay for cleanup at a Philadelphia Superfund site. The suit claims Illinois-based Versatile Metals Inc. is liable for nearly $1.5 million that the EPA has spent in recent years to stop the release of polychlorinated biphenyls, or PCBs, into the Delaware River through a sewer line on the site. The complaint cites a 1980s dispute between Versatile Metals and the site's owner at the time, Metal Bank, in which a federal judge — also in the Eastern District of Pennsylvania — found that Versatile Metals was liable for any contamination after 1984, when it over the operation of the metal scrap yard. "Versatile Metals likely caused spills of PCBs during its operations at the [scrap yard] when it mishandled transformers or capacitors," the suit says. In addition to seeking reimbursement for past cleanup costs, the EPA requested a declaratory judgment to hold Versatile Metals responsible for any future costs or damages at the site. Metal Bank operated the scrap yard from 1969 to 1984, according to the complaint, until Versatile Metals agreed to lease it and sell off the scrap metal assets. In the meantime, the complaint says, the metal was stored "outdoors in large piles." In 1985, Versatile Metals told Metal Bank it had discovered "substantial areas of oil-stained soil," according to the EPA's suit, and subsequent sampling revealed "significant" PCB contamination. Metal Bank believed this stemmed from both old and more recent spills, the complaint states. Versatile Metals sued Metal Bank in 1985 for allegedly failing to disclose the contamination, and Metal Bank countersued for cleanup costs. In 1988, a jury

determined Versatile Metals was 55 percent responsible and Metal Bank was 45 percent responsible, according to Tuesday's complaint...

WASHINGTON, D.C.

WASHINGTON POST

Federal employee health-care premiums to rise 1.5 percent on average for 2019 The enrollee share of premiums in the health-care program for federal employees and retirees will increase by 1.5 percent on average in 2019, although there will be decreases in some plans, including in the two Blue Cross and Blue Shield options that account for nearly two-thirds of enrollees, the government announced Wednesday. Further, Blue Cross and several other plans will offer a new third option in the Federal Employees Health Benefits Program, the largest employer-sponsored health insurance program in the nation, the Office of Personnel Management said. The FEHBP is open to almost all federal employees, while federal retirees can continue coverage if they were covered for the five years before retiring. It has about 4 million enrollees and about an equal number of covered spouses and children up to age 26. The large majority of the plans — 265 will be available in 2019 — are health maintenance organizations or fee-for-service plans available only in certain areas. There are 16 nationwide plans, most of them available to all enrollees, although several have limits.

The Energy 202 Blog: Republicans rev up calls to rewrite Endangered Species Act Motivated by a pair of recent court decisions regarding grizzly bears and gray wolves, Republicans are renewing their calls to rewrite the Endangered Species Act, the law credited with saving those and other animals from extinction. Over the summer, a federal appeals court ruled to retain protections for the wolves around the western Great Lakes. And just this week, a U.S. District Court restored protections for some 700 Yellowstone grizzly bears at the behest of conservation and tribal groups. Judge Dana L. Christensen ruled that the agency illegally failed to consider how removing the grizzlies in and around Yellowstone National Park from the endangered-species list would affect bear populations scattered throughout the rest of the United States south of Alaska. For many GOP members of Congress, that court decision shows exactly why the 45-year-old law that protects Yellowstone grizzlies and other endangered species is outdated. The grizzly ruling is a "prime example why Congress should modernize the Endangered Species Act," Wyoming Sen. John Barrasso (R), chairman of the Senate Environment and Public Works Committee, said in a statement Tuesday. The state's lone congresswoman, Liz Cheney (R), went a step further by introducing legislation that would reissue the decision to remove protections the grizzly...

DELAWARE

WILMINGTON NEWS JOURNAL

Hazmat incident at UD (Video link) Fire and emergency personnel responded to Drake Hall at the University of Delaware for a hazmat incident that injured two people.

Worst state in the country for commuters? Delaware, according to Esurance Esurance has identified the worst states for commuters. You're probably familiar with the one that came in dead last...

WEST VIRGINIA

WEST VIRGINIA PUBLIC BROADCASTING

Miners Urge Congressional Action On Pensions, Black Lung Fund Retired coal miners and coal community activists are on Capitol Hill this week urging action on two important issues for miners: pensions and black lung benefits. Advocates say funds supporting both pensions for retired miners and the federal benefits for those sickened by black lung disease are at risk if Congress does not act...

ASSOCIATED PRESS (W. Va.)

Developers Say Mountain Valley Pipeline To Now Cost $4.6B Developers of a natural gas pipeline set to run through West Virginia and Virginia say the project's cost has risen from $3.7 billion to $4.6 billion. The Roanoke Times reports Mountain Valley Pipeline developers released the revised cost estimate Monday. A Mountain Valley statement says about half of the increase is due to a construction lull last month. That pause was due a federal appeals court invalidating two permits and the Federal Energy Regulatory Commission ordering work halted. Mountain Valley says the remaining cost increase is due to "extraordinary rainfall events," hurricane prep and "unanticipated construction costs overruns." The project has been in the works since 2014 when Mountain Valley estimated its cost at $3 to $3.5 billion. It hopes to finish the project by the fourth quarter of 2019.

West Virginia fall foliage bursting into color CHARLESTON, W.Va. (AP) — West Virginia's higher elevations are starting to burst into their peak colors. The state Tourism Office released its first fall foliage report Wednesday. Tourism officials say in a news release that areas along U.S. Route 33 should reach their peak by this weekend, including Tucker, Randolph and Pendleton counties in northern and eastern West Virginia. The 30th annual Leaf Peepers Festival set for Saturday and Sunday in Parsons offers scenic chairlift rides and nature hikes. Closer to nature, tourists can see the foliage at Blackwater Falls, Canaan Valley Resort State Park and the Monongahela National Forest, home to the Dolly Sods Wilderness. The statement says the Potomac Highlands region will show yellow, gold and reds, while blueberry bushes are turning red at Dolly Sods.

MARYLAND

BALTIMORE SUN

From environmental hazard to water feature: Tradepoint Atlantic touts cleanup of polluted canal at former steel mill For at least 60 years, a man-made ditch at the Sparrows Point steel mill carried stormwater and polluted discharge from steelmaking operations across the vast property. Known as the Tin Mill Canal, it was once filled with murky water that deposited contaminants in the soil around it. The canal represents one of the biggest environmental challenges for Tradepoint Atlantic, the company that bought the old mill and is turning the site into an industrial campus. Company officials say the canal will flow through a new retail center on the property. Since January, contractors have been gradually removing the contaminated soil and re-lining the canal bed. On Wednesday, Tradepoint officials showed off their progress to government regulators and the news media. We have a lot of work to do, no doubt," said Eric Gilbert, Tradepoint Atlantic's chief development officer. But he said the cleanup of Tin Mill Canal marks a "major milestone" in the company's effort to undo a century of environmental damage to the Sparrows Point peninsula. ... "There's real progress being made here," said Ben Grumbles, Maryland's secretary of the environment. "It's gratifying to see the progress Tradepoint is making." Some environmentalists have questions about the work. Two advocacy groups — the Chesapeake Bay Foundation and Blue Water Baltimore — have raised concerns that the cleanup of the canal doesn't address groundwater that may be contaminated via seepage from the canal over the years. That groundwater eventually filters out to nearby Bear Creek. Paul Smail, an attorney with the bay foundation, said his group has been pressing the U.S. Environmental Protection Agency to require a thorough evaluation of possible polluted groundwater, but has "hit a brick wall" on that front."You need to do this now because the remediation and construction is happening apace," Smail said in an interview. Cecil Rodrigues, deputy regional administrator for the EPA, said a groundwater study is being planned, and said that if groundwater needs to be cleaned up, it can still happen even as more of the property gets paved and covered with buildings. Rodrigues said the EPA's priority is for Tradepoint to fix sources of pollution, "then we can work on historical contamination that exists." ...

2018 is officially one of Baltimore's top 10 wettest years There is still more than a quarter of 2018 to go, but the year already ranks as one of Baltimore's top 10 wettest on record. About half an inch of rain that fell Wednesday pushed the year-to-date rainfall total to about 53½ inches. That is slightly more than the 53.33 inches that fell in 1971,...

Record rains have dumped 80 billion gallons on Baltimore. Just how much water is that?

Flood watch issued in Baltimore region through Thursday night

MARYLAND DAILY RECORD

Tradepoint Atlantic touts Sparrows Point cleanup milestone (Subscription required) At the peak of steelmaking at Sparrows Point, dozens of drains on the property allowed a veritable sea of storm, waste, and process water to flow into the Tin Mill Canal. As a result, the man-made channel on the former Bethlehem Steel site deteriorated into one of the most polluted sections of the peninsula. On Wednesday, the ...

CHESAPEAKE BAY JOURNAL

Justice programs restore lives, communities, the Chesapeake Bay Behind a chain-link fence topped with razor wire, inmates tend a large plant nursery and vegetable garden. The large expanse dotted with black nursery pots and plants of various sizes grows right outside of the Howard County (MD) Department of Corrections. The beds of vegetables will become part of jail meals or given to a local food pantry. It is a place for respite, sunshine and fresh air, where minimum security inmates can help the communities they will return to someday, by potting, watering and weeding plants. The native plants growing are destined to become part of Howard County's stormwater control program. Young residents, ages 16 to 25, turn the nursery stock into rain gardens, swales and native plant landscapes as part of a summer employment program that teaches them the basics of green infrastructure installations. "We want to create a workforce pipeline from the jail to sustainable green infrastructure careers," said Lori Lilly, executive director of Howard EcoWorks, the nonprofit that runs both programs. "The vision is for the workforce program to start while people are in still in jail focusing on plants, water and soil." Workforce development and restorative justice programs help busy public works departments or stormwater managers get their work done while teaching participants valuable work skills. As communities strive to create more green spaces while reducing polluted stormwater by installing green infrastructure, the need for trained employees will grow. Natural landscaping or green infrastructure includes such practices as rain gardens and swales, which mimic nature by using plants and trees to filter, retain and absorb water instead of allowing it to flow quickly from surfaces into waterbodies...

MARYLAND REPORTER.COM

Commentary: Maryland's clean energy industry has made great strides National Clean Energy Week, happening now, provides a good opportunity to shine a light on our state's significant achievements. The growth of Maryland's clean energy sector is creating well-paying job opportunities, increasing the resiliency of our grid and facilitating rate stability – and improving our air quality, which benefits human and environmental health. A look at recent data indicates that implementing clean energy policies over the past few decades, combined with public and private investments to adopt clean energy products, services and technologies, are benefiting Marylanders in many ways.First, the energy economy is providing jobs. Data from the U.S. Bureau of Labor Statistics show that between 2013 and 2017, total employment in this sector increased by 10,961 jobs. That led to an increase in overall annual earnings of all workers in the energy sector from $8.067 billion to approximately $10.418 billion, with weekly earnings seeing a similar exponential increase...

CECIL WHIG

County rethinks Port Deposit sewer plans (Wedneday) PORT DEPOSIT — County Department of Public Works officials have revived efforts for a new sewer plant in Port Deposit, but the priority is now upgrading an outdated plant before working to provide service to the Bainbridge property to entice future development. DPW Project Manager Jonathan Pohlman said that the multi-million dollar project would serve as a well-needed upgrade for the town's sewer plant that sits in Marina Park facing the Susquehanna River. The existing 40-year-old treatment plant had worried public works officials in the past, reporting to Port Deposit officials three years ago that it had lots of issues and could rupture at any time. "It hasn't happened yet, and we're trying to avoid that," Pohlman said Monday. Earlier this month, the county sent

out a letter notifying design-build companies that it will soon start looking for requests for proposals to construct a new sewer plant to handle 60,000 gallons per day. That's more than 75 percent less daily flows than originally announced by County Executive Tari Moore's administration in 2016 when they announced a new regional vision for sewer service. DPW director Scott Flanigan later clarified that specifications for the project were meant to serve no less than 60,000 gallons per day and may be expanded to a larger capacity for future development. "It might be up to 150,000 gallons per day. That's to be determined at a later time," he said Tuesday afternoon. "Plan A was constructing a regional plant up the hill, but it was too much investment when we were uncertain about the development [at Bainbridge]. We want to recognize prospective developments, but the great unknown is when it will happen. So we're going forward with Plan B." Plan B in this case is building Port Deposit a new sewer plant at the bottom of the hill near 170 S. Main St. and have it online by 2020. This new plant is expected to serve the 280 customers already hooked up to the current plant and "a little more in case some small development requests sewer service," Pohlman said.Cecil County inherited the responsibility of the aging plant when it took over Port Deposit's wastewater treatment eight years ago. At first, the focus was on repair projects that would extend the plant's life expectancy even further with a prefabricated storage tank or repair lines to the plant...

VIRGINIA

RICHMOND TIMES-DISPATCH

Yearly, monthly rainfall for Roanoke in rare territory If it doesn't rain another drop this year, Roanoke's total rainfall for 2018 will still be 4 inches above normal. But there are going to be more drops of rain, maybe enough for an inch or more as early as Wednesday and Thursday, and that could help September move up a few slots on the list of wettest Septembers. That this is a wet year or a wet September locally won't come as a surprise to anyone. with the early tropical surge of moisture in May, the persistent eastern U.S. trough of low pressure in late July and August, and a September stoked by Hurricane Florence, 2018 is still in play for Roanoke's wettest year on record. Through Monday, with 98 days left in 2018, Roanoke had 45.06 inches of rain. Normal annual rainfall, based on the 1981-2010 average, over 12 entire months, is considered to be 41.25 inches. Averaging the entire 106-year period of record-keeping yields 40.88 inches per year. Either way, what has already fallen in a little less than nine months is close to 4 inches more than what is supposed to fall in 12. The record annual rainfall for Roanoke is 58.87 inches in 1948. Just getting normal rainfall in each of the last three months would raise the 2018 total to more than 54 inches and put us among the top seven rainiest years since official weather records began in 1912. Only an inch more above normal each month, and we're right at the lip of the record. It's also already Roanoke's ninth wettest September with 8.76 inches of rain. Three past September totals are within eight-tenths of an inch, so those may be within reach even by Thursday. The record 12.06 inches of September 1945 and runner-up 11.72 of September 2004 (remnants of hurricanes Frances, Ivan and Jeanne) are probably out of reach, with drier weather expected to set in as the month closes...

VIRGINIA MERCURY

Pipeline's federal review is looking a lot less 'thorough and exhaustive' The Federal Energy Regulatory Commission may have to soon figure out how to paper over another defect in the federal permitting process for the Atlantic Coast Pipeline. Environmental groups asked FERC Tuesday for another stop-work order on the 600-mile, Dominion Energy-led project after the U.S. Court of Appeals for the 4th Circuit in Richmond issued a stay of the U.S. Forest Service's record of decision and a special use permit that would allow the pipeline to carve through national forests in West Virginia and Virginia. The stay, in place while the court considers an appeal of the permit, means the project no longer meets the conditions set forth in the federal certificate that allowed it to move forward, burrowing and blasting its way through farms, fields, streams and ridgetops. Construction has begun in West Virginia and North Carolina, but the pipeline still lacks some environmental approvals in Virginia, and work here has been limited to tree clearing. "As the commission is aware, this is the third time in four months that the 4th Circuit has vacated or stayed federal authorizations for the ACP that represent mandatory conditions of the certificate order," lawyers for the Southern Environmental Law Center wrote. The stay follows court orders vacating permit decisions by the U.S. Fish and Wildlife Service and the National Park

Service...

'It's not right:' Cumberland residents say planned landfill will disturb historic school, possible burial grounds
CUMBERLAND — Just inside the front door of the 100-year-old Pine Grove School in Cumberland County's small Cartersville community, the soft wood underfoot groans and gives under Muriel Branch's steps. "I walked three and a half miles to get here, each way, each day," says Branch, sweeping her gaze around the one-room schoolhouse where she received her elementary education from 1949 to 1955. "Pine Grove School really means something to me." One of at least 360 Rosenwald Schools built in Virginia from 1917 to 1932, Pine Grove School was founded to better educate African-American students in Cumberland. Venerable black educator Booker T. Washington created the Rosenwald Schools model in a multi-pronged effort to improve the quality of education for black children in the South in the early 20th century. Then, in the thick of the Jim Crow era where nearly all advancement opportunities for black Americans — including education — were severely limited, philanthropist Julius Rosenwald of Sears, Roebuck and Company partnered with Washington, creating a fund to help build the schools. Pine Grove School sits on four acres adjacent to land recently acquired by Green Ridge Recycling and Disposal Facility. Green Ridge, owned by County Waste of Virginia, is a proposed landfill to be built on 1,200 acres in the extreme east of Cumberland County, bordering Powhatan County. The landfill, for which the Cumberland County Board of Supervisors has granted rezoning and conditional land use permits, has been met with ire from some residents of several counties for a laundry list of reasons...

VIRGINIA PUBLIC RADIO

Fones Cliffs Enforcement Case Sent to Virginia's Attorney General In July, Virginia's Department of Environmental Quality asked the public to weigh-in on fines and actions against a New York company that violated environmental regulations on pristine cliffs above the Rappahannock River. Now they're asking the Attorney General's office to weigh in, as well.The trouble for Virginia True Corporation began last year when more than 13 acres were clear-cut on the environmentally sensitive Fones Cliffs without permits or erosion, sediment and stormwater control devices. Then came heavy rains and erosion into the river. It was the worst fear for conservationists who said exactly that would happen as plans to construct a 964 acre golf course resort and development overlooking the Rappahannock River went forward. The spot is a favorite of hundreds of bald eagles and for watermen who fish in the river and a historic area for the Rappahannock Tribe. Jeff Howeth, who took over as manager of the development said he was surprised as he's been working closely with officials from the Department of Environmental Quality. "All of the rainfall certainly has not been anything short of a challenge to try to keep up with all of the things going on out there," Howeth admitted. "But we sit down with DEQ on a regular basis. I turn in a weekly engineer's report with 30 to 40 photographs." A spokesperson for DEQ said recent history and ongoing issues that have been identified by DEQ staff contributed to the decision to ask the AG's office on how best to proceed.

HAMPTON NEWPORT NEWS DAILY (HNN DAILY)

James City County supervisor asks for restrictions on building hazards near Skiffes Creek Reservoir In Grove, a serene lake snakes toward the south, surrounded by trees and heading toward the James River. Part of Newport News Waterworks, the long, slim lake — called the Skiffes Creek Reservoir — is tasked with providing fresh water to Newport News and the lower part of James City County. While the reservoir is now cocooned with trees, only briefly brushing past the Edgemoor neighborhood in Newport News, what regulations are in place to prevent facilities that use possibly hazardous contaminants — such as gas stations — from being built within a certain distance of drinking water? According to James City County staff, there are no local limits. "That you could allow construction of a gas station within a relatively short distance doesn't strike me as a good thing," said James City County Supervisor John McGlennon, D-Roberts. Some James City County and Virginia Department of Environmental Quality regulations provide protection against dumping waste and building or spilling hazardous contaminants near bodies of water in the area, but no existing policies specifically address the distance possible contaminants must be located from drinking water. The issue, which has been a topic of discussion since at least 2015, resurfaced during a recent James City County Board of Supervisors meeting. On Tuesday, during a Board of Supervisors work session, McGlennon plans to ask for an initiating resolution which would direct the Planning Commission to put together an ordinance that would provide buffers and other protections for drinking water supplies. McGlennon briefly brought up the issue during a May meeting between the Board of Supervisors and Planning Commission. At the time, Interim County Administrator Bill Porter proposed the Planning Commission develop a policy about deferring project applications. As a separate note, McGlennon asked that the Planning Commission's Policy Committee also consider developing another policy setting restrictions on how close

possible contaminants, such as gas stations, can be built to water supplies. "The point for a revision of the ordinance would be to give us some protections of drinking water supplies," McGlennon said earlier this month...

WILLIAMSBURG YORKTOWN DAILY

County supervisor asks for restrictions on building hazards near drinking water *Update 6:30 p.m. Tuesday: The James City County Board of Supervisors reached a consensus Tuesday to form an initiating resolution asking the Planning Commission to put together an ordinance that would provide buffers and other protections for drinking water supplies. The initiating resolution will be up for a vote at a future Board of Supervisors meeting, Supervisor John McGlennon said.* In Grove, a serene lake snakes toward the south, surrounded by trees and heading toward the James River. Part of Newport News Waterworks, the long, slim lake — called the Skiffes Creek Reservoir — is tasked with providing fresh water to Newport News and the lower part of James City County. While the reservoir is now cocooned with trees, only briefly brushing past the Edgemoor neighborhood in Newport News, what regulations are in place to prevent facilities that use possibly hazardous contaminants — such as gas stations — from being built within a certain distance of drinking water? According to James City County staff, there are no local limits. "That you could allow construction of a gas station within a relatively short distance doesn't strike me as a good thing," said Supervisor John McGlennon, D-Roberts...

MISCELLANEOUS

GREENWIRE

Shutdown averted, but Interior and EPA still in limbo President Trump won't force a government shutdown when the new fiscal year begins next week, but EPA, the Interior Department and a host of other agencies aren't likely to have funding finalized until December. Trump told reporters after a meeting with international leaders in New York yesterday, "We're going to keep the government open." He has for weeks toyed with a possible shutdown because Congress has yet to fully fund his plans for a U.S.-Mexico border wall. The president is now expected to sign spending legislation to avert a break in federal funding that the House overwhelmingly backed yesterday, 361-61. The Senate easily approved it last week. That so-called minibus includes the fiscal 2019 Defense, Labor-Health and Human Services, and Education spending bills. It also has a continuing resolution for other agencies through Dec. 7. Energy and water programs got money in a separate minibus. Without the latest legislation, much of government would have to shut down Monday. Both parties have warned for weeks the decision would be a huge political gamble with the midterm elections less than 50 days away. Top appropriators in both the House and Senate said yesterday they were about out of time to move another minibus by Monday that would contain the Interior-EPA, Transportation-Housing and Urban Development, Agriculture, and Financial Services spending bills. Senate Appropriations Chairman Richard Shelby (R-Ala.) first suggested yesterday that Congress would "punt" on the minibus legislation until after a post-lame-duck session. But then after voting, Shelby walked back the remark, telling reporters that offers were still being exchanged between House and Senate negotiators... Calvert stressed he still believes an Interior-EPA bill will be completed for fiscal 2019 rather than forcing agencies to rely on stopgap funding for the entire year. Both parties might ultimately gain by waiting until after the elections. Republicans, especially House conservatives, could continue to make the argument to voters that they are fighting for provisions in the bill that would ease endangered species rules and environmental regulations....

Interior-EPA funding will likely wait until after midterms Congress isn't expected to wrap up work on a fiscal 2019 Interior-EPA spending bill before the new fiscal year begins next week, leaving many environmental and land use agencies facing at least two months of flat funding. Lawmakers in both chambers said they have yet to finalize a spending minibus that would contain the Interior-EPA, Transportation-Housing and Urban Development, Agriculture and Financial Services spending bills for fiscal 2019. Senate Interior and Environment Appropriations Subcommittee Chairwoman Lisa Murkowski (R-Alaska), who last week said her title of the package was not the biggest obstacle to a deal, reiterated the point yesterday (*E&E Daily*, Sept. 19). "I honestly believe that if we weren't part of a minibus, if we were just left to our own devices, we might be able to shake it loose," she told E&E News. However, Murkowski also indicated that there were unresolved issues in the Interior-Environment section of the minibus, as well. "In fairness,

some of the issues in the other titles have just kind of consumed the discussion, and I think there's a sense that if we could unlock those, everything falls into place, and I believe that, as well," she said, adding that negotiations are ongoing. Senate Appropriations Chairman Richard Shelby (R-Ala.) did not rule out a possible deal but said an agreement would have to come together by tomorrow in order to become law when the new fiscal year begins Monday. "I think we could wind this up if the House could do it. We think we've gotten pretty close. Maybe we are, maybe we are not, we are not sure yet," Shelby told reporters, noting that he planned to meet with House Appropriations Chairman Rodney Frelinghuysen (R-N.J.) and Speaker Paul Ryan (R-Wis.) yesterday. "We're trying to clean as many of these policy riders and poison pills up as we can," he said...

EPA: Children's health director abruptly put on leave EPA has put the director of its children's health protection office on administrative leave. Ruth Etzel, a career employee who joined the agency in 2015, was put on leave yesterday, sources told E&E News. The agency declined to provide details about the decision, and it's unclear whether or when she'll return. The abrupt move has alarmed some agency employees and children's health experts. Caroline Cox, a member of EPA's Children's Health Protection Advisory Committee, called it "very concerning" that Etzel has been put on leave. Cox, a senior scientist at the California-based nonprofit Center for Environmental Health, told E&E News today that the panel's chairwoman notified her and other members of the advisory committee via email yesterday of Etzel's status. "She is a person with just an amazing reputation and some stellar credentials in the field of pediatrics," Cox said. The loss is "huge," she added. Etzel is a senior EPA official with a career of more than 30 years as a pediatrician and a public health expert, according to EPA. Her office works on protecting children from environmental dangers through EPA rulemaking, policy and enforcement...

ENERGY POLICY: Wheeler says EPA helping boost production Acting EPA Administrator Andrew Wheeler says his agency's work in rolling back rules is helping to expand the country's energy mix. Wheeler, speaking today at the National Press Club as part of the policymakers symposium for National Clean Energy Week, said EPA will stay within the law and provide regulatory certainty to those affected by the agency. "We will not transgress the bounds that Congress has given us," Wheeler said. The acting EPA chief ticked off a number of energy sources, noting how his agency is helping them to bolster their expansion. Wheeler criticized the Clean Power Plan, the Obama-era climate change rule that EPA is seeking to repeal under Trump. He praised the Trump administration's replacement, the Affordable Clean Energy rule, which he said would keep coal power plants functioning and still reduce carbon emissions...

CLIMATE: 'We can and should and will do more' on emissions: Murkowski Senate Energy and Natural Resources Chairwoman Lisa Murkowski (R-Alaska) said Congress will do more to reduce U.S. greenhouse gas emissions, even as the Trump administration spurns climate science and rolls back regulations on planet-warming gases.

GREAT LAKES: Federal cleanup program boosts region's economy — report A newly released analysis says a federal Great Lakes cleanup program is good for the region's economy...

COAL ASH: Greens see 'tale of two utilities' in Florence response When Hurricane Matthew hit the Carolinas two years ago, floodwaters threatened all coal ash pits along the Waccamaw and Neuse rivers. But the utilities that owned the Grainger Generating Station and H.F. Lee Plant responded very differently...

EPA: Trump's corn-state pledge puts Wheeler in a jam President Trump is expected to follow through soon on an ethanol promise to Corn Belt states, leaving acting EPA chief Andrew Wheeler to broker a politically risky deal with the oil industry.

EPA: Pruitt's gone. His stuff isn't Nearly three months after Scott Pruitt's sudden departure from EPA, he still hasn't picked up his belongings...

ATLANTIC CITY PRESS

Wide Range Of Groups Gather To Talk About Protecting Delaware Watershed CAPE MAY — Rodale Institute's Diana Martin traveled from her company headquarters in Kutztown, Pennsylvania, to be part of the sixth annual Delaware River Watershed Forum on Tuesday. Best known for promoting organic farming practices, Rodale helps farmers improve soil health and stop using chemical fertilizers, herbicides and pesticides, Martin said. Covering about 14,000 square miles

of New Jersey, Delaware, Pennsylvania and New York, the Delaware watershed is the source of drinking water for more than 15 million people, including those in New York City and Philadelphia. Protecting it from pollution is essential to keeping communities here healthy, according to the Coalition for the Delaware River Watershed. As part of that focus, the coalition's 131-member organizations work together to create a healthier watershed, to improve the physical and economic well being of communities there. "It's a new focus for us," said Martin of recently joining the coalition. Previously, Rodale stayed more with agricultural initiatives, but the group has realized it has a lot in common with water-quality advocates, wildlife groups and others working to improve the health of the watershed. A watershed is a term for the area that drains into a particular river through tributaries and other smaller bodies. "There are 15,000 farms in the watershed. It's the biggest land use," Martin said. Agricultural runoff from conventional farming practices is a leading source of pollution there, she said. Organic practices such as crop rotation and cover crop planting can greatly improve water quality, as can the use of other techniques to reduce or eliminate pesticide and herbicide use. And those practices hold onto soil and water better, resulting in less runoff into streams that find their way to the Delaware, Martin said. Everyone benefits from cleaner water, said New Jersey Audubon President and CEO Eric Stiles. "People have broad interests here. They vary by geography, membership and age, but one thing we have in common is a shared vision and shared values," said Stiles. "Swimmable rivers, healthy fish and wildlife for all, and clean drinking water for all — these are, in essence, what we are pursuing."...

ASSOCIATED PRESS

Fuel at former New Jersey nuclear plant removed from reactor LACEY TOWNSHIP, N.J. (AP) - The owner of what was considered to be America's oldest nuclear power plant until its shutdown last week says it has removed the nuclear fuel from the reactor. Chicago-based Exelon Corp. has notified the U.S. Nuclear Regulatory Commission that it removed the last of the fuel rods from the Oyster Creek Nuclear Generating Station in New Jersey on Tuesday. The material was placed into a spent fuel pool where it will cool down for at least two years...

NEW YORK TIMES

EPA Places the Head of Its Office of Children's Health on Leave WASHINGTON — The Environmental Protection Agency on Tuesday placed the head of its Office of Children's Health Protection on administrative leave, an unusual move that appeared to reflect an effort to minimize the role of the office. Dr. Ruth Etzel, a pediatrician and epidemiologist who has been a leader in children's environmental health for 30 years, joined the E.P.A. in 2015 after having served as a senior officer for environmental health research at the World Health Organization. She was placed on administrative leave late Tuesday and asked to hand over her badge, keys and cellphone, according to an E.P.A. official familiar with the decision who was not authorized to discuss the move and who asked not to be identified. The official said Dr. Etzel was not facing disciplinary action and would continue to receive pay and benefits. No explanation was offered to the staff on Tuesday. An E.P.A. spokesman, John Konkus, declined to give a reason for the administrative leave. Four people within the E.P.A. and a dozen or so who work closely with the agency said that Dr. Etzel's dismissal was one of several recent developments that have slowed the work of her department, the Office of Children's Health Protection. Created by President Bill Clinton in 1997, it advises the E.P.A. leadership on the specific health and environmental-protection needs of children, which often leads to tougher or more stringent regulatory standards than those that might be required for adults...

USA TODAY

Bats Gain Protection After Being Nearly Wiped Out In PA

Message

From: schafer, joan [schafer.joan@epa.gov]
Sent: 9/28/2018 2:44:06 PM
To: Grantham, Nancy [Grantham.Nancy@epa.gov]; Press [Press@epa.gov]
CC: Nitsch, Chad [Nitsch.Chad@epa.gov]
Subject: FW: EPA Mid-Atlantic Region Headlines - Friday, September 28, 2018

Localities seek help with their role in Chesapeake region cleanup effort
CHESAPEAKE BAY JOURNAL As the Bay region enters the next leg of the Chesapeake cleanup effort, local governments will need more help — both financially and with technical assistance — if they are to ramp up their efforts. That was the message delivered by local officials to the Chesapeake Executive Council, the top policymaking body for Bay restoration work, when it met in Baltimore in August. "Local governments can be resourceful, innovative and effective partners in watershed protection and restoration," said Bruce Williams, chair of the Chesapeake Bay Program Local Government Advisory Committee and the former mayor of Takoma Park, MD. "However, we need the tools and resources required for success." It's a message, he reminded Executive Council members, that the committee has been raising for a decade, but it is more urgent than ever as pollution control efforts needed between now and the 2025 cleanup deadline are likely to cost billions of dollars, with local governments shouldering a significant portion of the expense. The Chesapeake Bay Executive Council includes the governors of Maryland, Virginia, Pennsylvania, West Virginia, Delaware and New York; the mayor of the District of Columbia; the administrator of the U.S. Environmental Protection Agency; and the chair of the Chesapeake Bay Commission, an advisory body that represents state legislatures...

D.C. Council will consider law to strengthen prevention of lead poisoning in homes
WASHINGTON POST Safety measures to ensure that children are protected from the dangers of lead poisoning while living in District homes may soon become a lot more stringent. The D.C. Council is considering a bill to shore up weaknesses in lead-poisoning-prevention laws that in recent years have led to elevated blood lead levels for some low-income children in subsidized rental housing. "When you're thinking about vulnerable families in rental units or on vouchers, you're talking about families who don't have the same level of agency or capacity to up and move somewhere," said council member Charles Allen (D-Ward 6), who introduced the bill this month. "So we need to make sure we're doing everything we can to make sure they're safe." The legislation, which has six co-sponsors and appears to have the support of two additional council members, would strengthen laws in several crucial ways. It would require all landlords renting property built before 1978, the year lead paint was effectively banned, to provide a clearance report to new tenants showing that inspectors have done lead-dust testing and the property is safe. It would also strengthen steps for remediation, which may include asking landlords to remove baseboards in units where lead has been found to keep potential contaminants out of a child's reach. The law would also establish a fund to offset landlord expenses when making repairs so the supply of affordable housing is not affected...

EPA Reaches Settlement For Philadelphia Superfund Cleanup
LAW 360 The Environmental Protection Agency simultaneously filed a complaint and proposed consent decree in Pennsylvania federal court Tuesday to settle a dispute with the former operator of a toxic metal scrap yard at a Philadelphia Superfund site. The suit claims Illinois-based Versatile Metals Inc. is liable for nearly $1.5 million that the EPA has spent in recent years to stop the release of polychlorinated biphenyls, or PCBs, into the Delaware River through a sewer line on the site. Also on Tuesday, the EPA submitted a proposed consent decree to the court, agreeing to settle the case for $42,000 because of Versatile's "limited ability to pay," according to the document. Versatile also agreed to assign the government certain insurance rights. An EPA representative said in an email that, while the consent decree is subject to review and public comment for 30 days, the litigation is not ongoing. "In order for there to be a formal settlement of government claims, there must also be a case or controversy – which is documented in the simultaneously-filed complaint," said EPA

senior advisor Joan T. Schafer. "Because the government and Versatile Metals have reached a settlement, there is no ongoing litigation." The complaint cites a 1980s dispute between Versatile Metals and the site's owner at the time, Metal Bank, in which a federal judge — also in the Eastern District of Pennsylvania — found that Versatile Metals was liable for any contamination after 1984, when it over the operation of the metal scrap yard. "Versatile Metals likely caused spills of PCBs during its operations at the [scrap yard] when it mishandled transformers or capacitors," the suit says. In addition to seeking reimbursement for past cleanup costs, the EPA requested a declaratory judgment to hold Versatile Metals responsible for any future costs or damages at the site. Metal Bank operated the scrap yard from 1969 to 1984, according to the complaint, until Versatile Metals agreed to lease it and sell off the scrap metal assets. In the meantime, the complaint says, the metal was stored "outdoors in large piles." ... The government is represented by Nathaniel Douglas and Robert S. Hasson of the U.S. Department of Justice's Environmental Enforcement Section.

Wheeler: EPA 'Absolutely Not' Shuttering Children's Health Office

BLOOMBERG ENVIRONMENT The EPA decision to put its children's health chief on leave was "absolutely not" a move toward dismantling the office, Acting Administrator Andrew Wheeler said Sept. 27. Ruth Etzel, head of the Environmental Protection Agency's Office of Children's Health Protection, told colleagues that her removal wasn't for disciplinary reasons, according to a personal email from her, obtained by Bloomberg Environment. Her office works to ensure the EPA's actions and programs address children's vulnerabilities. Wheeler spoke to reporters at the agency's headquarters Sept. 27. He declined to respond to additional questions about Etzel, saying it was a personnel matter. Former EPA staff and members of the children's health community told Bloomberg Environment they're concerned the agency's action weakens the office's ability to protect children's health, and could lead to the office's closure. Etzel, a pediatrician, joined the agency in 2015. Her office is part of the administrator's office.

EPA: Employees on edge as Trump team reorganizes

GREENWIRE EPA is reshuffling its science, human resources and regional offices, leaving staffers worried about the quality of the agency's work and about their careers. Top EPA officials yesterday informed staff that they plan to eliminate the agency's science adviser's office and merge those positions into a division within EPA's larger science shop, the Office of Research and Development, according to an employee who attended the meeting. EPA is also planning to combine its human resources office with its information technology division, sources told E&E News. These latest moves come as the Trump administration pursues a broader reorganization at the agency, including a revamp of regional offices across the country. Staffers say they're still waiting for details about how it will shake out and what it means for their jobs, but they're nervous in the meantime. Employees are "very anxious," said Joe Edgell, president of National Treasury Employees Union Chapter 280, which represents EPA employees in headquarters. "The union has been notified that there are a tremendous number of reorgs going on right now," he said. Top EPA officials are telling staff that the plans are "more efficient or more logically organized," he said. But "with reorgs come uncertainty about one's job, about one's job assignments, about the work that people do in terms of protecting the environment, so people are very anxious with that change. Given that there haven't been a lot of specifics about these reorgs, that enhances the anxiety."...

EPA's Wheeler Supporting Pruitt's Superfund Cleanup Decisions

BLOOMBERG ENVIRONMENT EPA acting Administrator Andrew Wheeler's decisions on Superfund cleanup plans are similar to those of his predecessor, Scott Pruitt. For some environmental advocates, that is welcome news, but others, including companies, are frustrated. Wheeler signed off Sept. 27 on a final cleanup plan for part of a contaminated, radioactive landfill outside St. Louis that chopped two years and $30 million off Pruitt's proposed plan. Under this plan, the EPA's administrators under President Donald Trump are following through on their promises to engage with communities and prioritize cleanup, environmental advocates said. Wheeler's plan cuts down on the time and cost of Pruitt's plan, however, by focusing on excavating areas of higher radioactivity to minimize the total amount of waste that needs to be handled. There is "not a large difference" between his approach to Superfund remedies and Pruitt's, Wheeler said. "We're both following the president's initiatives here," he told Bloomberg Environment after signing the finalized cleanup plan for the

landfill Sept. 27...

Tradepoint Atlantic reaches seminal milestone in environmental remediation of Sparrows Point
AMERICAN JOURNAL OF TRANSPORTATION Tradepoint Atlantic, a 3,250-acre multimodal global logistics center in Baltimore, Maryland featuring an unmatched combination of access to deep-water berths, railroads, highways and storage space, announced today that in partnership with the Maryland Department of the Environment ("MDE") and the Environmental Protection Agency ("EPA"), it has reached a critical juncture in the environmental remediation of Sparrows Point, with the excavation and clean-up of the Tin Mill Canal. The man-made Tin Mill Canal on the former Bethlehem Steel site was created to allow the conveyance of contact water from steelmaking operations to pass into the site's water treatment facility. Over the years, process sediment built up in the canal. When Tradepoint Atlantic became the owner of the former steelmaking property in 2014, it quickly entered into a collaboration with the MDE and EPA to clean up and restore the iconic 3,250-acre industrial brownfield site at Sparrows Point, redeveloping the land to serve the global economy of tomorrow. Earlier this year, Tradepoint Atlantic implemented a Maintenance Cleanup Plan to excavate and remove the process sediment from the 7,500-foot Tin Mill Canal. "Tin Mill Canal is living proof of tremendous progress in the overall cleanup of Sparrows Point after more than a century of steelmaking," said Maryland Environment Secretary Ben Grumbles. "The cleanup being done by Tradepoint Atlantic under Maryland Department of the Environment and EPA oversight shows the value of working in partnership to benefit Maryland's economy while ensuring the environment and public health are protected." "Restoring the Tin Mill Canal and reducing the effects of a century of steelmaking was accomplished through a robust collaboration among EPA, state and local partners," said Cosmo Servidio, Regional Administrator of the Environmental Protection Agency. "The Tin Mill Canal is an important milestone in the ongoing cleanup at Sparrows Point but it is also a model for continued partnership on a larger scale across the full area of the site."...

EPA to Eliminate Office That Advises Agency Chief on Science
NEWS YORK TIMES WASHINGTON — The Environmental Protection Agency plans to dissolve its Office of the Science Advisor, a senior post that was created to counsel the E.P.A. administrator on the scientific research underpinning health and environmental regulations, according to a person familiar with the agency's plans. The person spoke anonymously because the decision had not yet been made public. The move is the latest among several steps taken by the Trump administration that appear to have diminished the role of scientific research in policymaking while the administration pursues an agenda of rolling back regulations. A spokesman for the E.P.A. did not return emails or phone calls requesting comment on the move. Separately on Tuesday, in an unusual move, the E.P.A. placed the head of its Office of Children's Health, Dr. Ruth Etzel, on administrative leave, while declining to give a reason for the move. Agency officials told Dr. Etzel, a respected pediatric epidemiologist, that the move was not disciplinary. As the head of an office that regularly pushed to tighten regulations on pollution, which can affect children more powerfully than adults, Dr. Etzel had clashed multiple times with Trump administration appointees who sought to loosen pollution rules. The E.P.A.'s science adviser is currently Jennifer Orme-Zavaleta, an expert on the risks of chemicals to human health who has worked at the E.P.A. since 1981, according to the agency's website. Dr. Orme-Zavaleta did not respond to emails and telephone messages requesting a response for comment...

Editorial: NJ shows nation how to get toxic chemical out of drinking water
PRESS OF ATLANTIC CITY (N.J.) Usually it's not a bad idea to let the federal government set the allowable standards for toxic substances in the nation's water and food. Federal agencies have the size and expertise to handle the challenging science. But regarding a family of chemicals used to make very tough plastics — the kind used in nonstick cookware, fabric protectors and firefighting foams — New Jersey couldn't wait. Its history of manufacturing made protecting the public more urgent. So this month the state became the first in the nation to limit one of the chemicals, PFNA (for perfluorononanoic acid). Beginning next year, water providers must monitor supplies and reduce PFNA as needed to less than 13 parts per trillion in drinking water. That's far stricter than the federal government's current health advisory. Exposure to the chemical at higher levels over time can cause liver and kidney problems, reproductive problems in men, and delays in development of fetuses

and infants. The state Department of Environmental Protection said PFNA contamination has been largely an issue for the Delaware River in South Jersey, due to past discharges from a particular chemical plant. High levels of it have been found in 11 public water systems and private wells in Salem and Gloucester counties near the river. Bottlenose dolphins from Delaware Bay have been found to have the chemical in their blood at concentrations well over 100 parts per billion... The EPA may catch up with New Jersey soon. It expects to complete a national management plan for this family of chemicals by the end of the year that might include a recommendation for limits on PFOA and PFOS. These chemicals cannot be effectively removed from drinking water by most in-home water filters. Setting standards that require water suppliers to remove them is leadership by New Jersey officials that benefits everyone.

PENNSYLVANIA

PHILADELPHIA INQUIRER

PSE&G launches $4.1B proposal to boost energy efficiency, electric vehicles - and rates Public Service Electric and Gas Co., New Jersey's largest utility, has proposed a $4.1 billion plan to reduce energy consumption and carbon emissions, including hundreds of millions for electric vehicle infrastructure, energy storage, and smart meters. PSE&G says its six-year Clean Energy Future program would increase a typical residential bill about 50 cents a month in 2019, increasing to $7 a month by 2024. But it maintained that program would save customers $7.4 billion in "lifetime energy costs" through reductions in consumption.Ralph Izzo, chairman of PSE&G's parent company, Public Service Enterprise Group, called the program a "historic investment" that would help meet Democratic Gov. Murphy's ambitious clean energy and climate goals."This is in lockstep with Gov. Murphy's clean energy goals for the state," Dave Daly, the utility's president, said in a news briefing Thursday. The proposal was greeted warily by New Jersey's ratepayer advocate and by large industrial users, who say PSE&G's latest effort would generate hefty guaranteed returns for the utility's shareholders to finance programs that best could be provided in the competitive market. "From a utility perspective, it's attractive," said Steven S. Goldenberg, spokesman for New Jersey Large Energy Users Coalition. "From a consumers' perspective, these are very expensive programs."...

PITTSBURGH POST-GAZETTE

Wildlife, parks in Pa. depend on conservation program

In Pennsylvania, we are blessed with some amazing outdoor opportunities. I was lucky to grow up here and be exposed to fishing and hunting among Pennsylvania's forests and waters. An important but not often publicized conservation program has helped protect many places we know and love throughout Pennsylvania — and it soon may go away. For over 50 years, the federal Land and Water Conservation Fund (LWCF) has supported opportunities to get outdoors across the state, including places like the Allegheny National Forest and the Appalachian National Scenic Trail, as well as parks and playgrounds across the state. Growing up, I frequented outdoor spaces that have been touched by LWCF like Mount Pisgah and Moraine State Park to hike and view wildlife. I started hunting in my early 20s and discovered a deeper appreciation for public lands as I began to explore state game lands in search of whitetail deer, turkeys, squirrels and rabbits. Over 50 state game lands in Pennsylvania have acquired land through LWCF, providing Pennsylvania sportsmen and women like myself ample hunting opportunities on public land. The LWCF has also provided support for places that are important to our nation's history, such as Gettysburg National Military Park, Valley Forge National Historical Park and the Flight 93 National Memorial. It's quite a shame that the program is set to expire on Sunday if Congress fails to act. I call upon Pennsylvania's congressional delegation to put aside its differences and come together to ensure this important program continues for future generations…

PITTSBURGH TRIBUNE REVIEW

Experts Tell Officials To Be Cautious About Buying Pittsburgh Water Authority Three water and sewer experts urged Pittsburgh City Council on Thursday to be cautious when considering privatization and public-private partnership proposals for the problem-plagued Pittsburgh Water and Sewer Authority. Under either scenario, they said, customers would pay more over time than they would if PWSA improved the system on its own. "When it comes right down to it there are only two ways that a private company can make a profit running a public service: raising prices or cutting costs," said Bill Henry, a Baltimore city councilman. "Raising prices is raising the cost of water to your constituents, while cutting costs means either reducing worker pay and benefits or reducing services, the brunt of which usually falls on low-income and communities of color." Pittsburgh Mayor Bill Peduto and a majority of city council members have pledged opposition to any privatization offer, but are willing to consider partnership offers from the private sector as long as PWSA remains under public ownership. Peduto has said he would not consider any offer until PWSA completes long-range projections on what needs to be fixed and how much it would cost. The mayor has estimated it could cost up to $2 billion to replace the system's 100-year-old pipes and pumps...

Oct. 10 Pittsburgh Workshop Will Cover Farmland Preservation Strategies An all-day workshop on farmland preservation strategies will be held at the Mattress Factory Museum, 500 Sampsonia Way, Pittsburgh, on Wednesday, Oct. 10. The training is part of a series of workshops that the National Young Farmers Coalition is offering around the country. Information covered in the training will include: understanding the context and challenge of secure land access for farmers; tools and strategies to improve land access for farmers in Pennsylvania; a farmer's perspective on land access; and legal considerations...

Get A Free Tree If You Live In Allegheny County Allegheny County residents can get free trees at two upcoming events. In an effort to recover tree canopy lost in Allegheny County, the nonprofit Tree Pittsburgh is giving away free trees on Oct. 13 at the Pittsburgh Zoo and PPG Aquarium and Nov. 3 at the North Park Ice Rink... The tree giveaways are co-sponsored by Duquesne Light, the Arbor Day Foundation, TruGreen, and FedEx. Tree Pittsburgh is planning to distribute 1,000 trees, 500 at each event. Trees will be in two- or three-gallon containers and will range from two to seven feet tall and can fit in a car or truck. Species include river birch, sycamore, cornelian cherry dogwood, black gum, tulip poplar, and more. Species cannot be guaranteed and are subject to availability.

THE INCLINE.COM

10 Things To Know About Orthophosphate Coming To Pittsburgh Drinking Water Treatment In an effort to further reduce lead levels in city drinking water, the Pittsburgh Water and Sewer Authority is preparing to add a new chemical to the supply here aimed at forming a natural, protective barrier between lead pipes and the water we consume. That additive is orthophosphate, already in use as a lead control measure in New York City, Philadelphia, Washington, D.C., Flint, Mich., and elsewhere. PWSA says orthophosphate could reduce lead levels in a matter of months. But how does it work? Is it safe? Is it environmentally friendly? And what do the experts think of the authority's plan? To answer those questions and more, we spoke with the DEP, PWSA, and local water management experts, and we consulted published research on the subject. Here's what we found...

STATE IMPACT PENNSYLVANIA

Lawmakers consider tougher penalties for vandalizing pipelines, power plants As states grapple with how to respond to protests over pipelines and other infrastructure projects, Pennsylvania lawmakers are considering a bill that would establish tougher penalties against people who vandalize "critical infrastructure" facilities like pipelines and power plants. Senate Bill 652 would make vandalism against those facilities its own crime, ranging from a second degree misdemeanor to a third degree felony depending on the amount of property damage. It would also establish felony charges for people who trespass with the intent to damage equipment or impede the operations of the facility. A House committee advanced the measure earlier this week, amending a different version that passed the Senate earlier this year. Rep. John Maher, R-Upper St. Clair, chairs the House Environmental Resources and Energy Committee, which approved the bill on a near-party-line vote with Republicans in favor. He said the measure is necessary to adequately punish people who commit crimes that affect the greater community, like cutting a fiber optic line that provides Internet and phone service. He said the new charges would fall between two extremes. "Having a petty trespassing or terrorism charge as the only two

options seems to be leaving our prosecutors a bit scratching their heads, and I just think it's important that they have the tools they need," he said. The amendments adopted by the committee scrapped some language that critics feared would hinder protesters' First Amendment rights. Maher said the new version excludes charging protesters who simply enter a property with the tougher sanctions...

LAW 360

EPA Reaches Settlement For Philadelphia Superfund Cleanup Law360 (September 26, 2018, 6:04 PM EDT) -- The Environmental Protection Agency simultaneously filed a complaint and proposed consent decree in Pennsylvania federal court Tuesday to settle a dispute with the former operator of a toxic metal scrap yard at a Philadelphia Superfund site. The suit claims Illinois-based Versatile Metals Inc. is liable for nearly $1.5 million that the EPA has spent in recent years to stop the release of polychlorinated biphenyls, or PCBs, into the Delaware River through a sewer line on the site. Also on Tuesday, the EPA submitted a proposed consent decree to the court, agreeing to settle the case for $42,000 because of Versatile's "limited ability to pay," according to the document. Versatile also agreed to assign the government certain insurance rights. An EPA representative said in an email that, while the consent decree is subject to review and public comment for 30 days, the litigation is not ongoing. "In order for there to be a formal settlement of government claims, there must also be a case or controversy – which is documented in the simultaneously-filed complaint," said EPA senior advisor Joan T. Schafer. "Because the government and Versatile Metals have reached a settlement, there is no ongoing litigation." The complaint cites a 1980s dispute between Versatile Metals and the site's owner at the time, Metal Bank, in which a federal judge — also in the Eastern District of Pennsylvania — found that Versatile Metals was liable for any contamination after 1984, when it over the operation of the metal scrap yard. "Versatile Metals likely caused spills of PCBs during its operations at the [scrap yard] when it mishandled transformers or capacitors," the suit says. In addition to seeking reimbursement for past cleanup costs, the EPA requested a declaratory judgment to hold Versatile Metals responsible for any future costs or damages at the site. Metal Bank operated the scrap yard from 1969 to 1984, according to the complaint, until Versatile Metals agreed to lease it and sell off the scrap metal assets. In the meantime, the complaint says, the metal was stored "outdoors in large piles." ... The government is represented by Nathaniel Douglas and Robert S. Hasson of the U.S. Department of Justice's Environmental Enforcement Section.

DELAWARE RIVERKEEPER

Delaware RiverKeeper Sept. 28 RiverWatch Video Report

BUCKS COUNTY COURIER TIMES

Volunteers needed for Bristol Marsh cleanup Saturday The Heritage Conservancy, a Doylestown Township-based nonprofit, is making a last push for volunteers to aid in the cleanup of the Bristol Marsh on Saturday. The 11-acre marsh, located between the far southern end of Bristol Borough and the property owned by Rohm & Haas, now Dow, is one of heavily developed Lower Bucks' ecological jewels. It's also one of the Delaware River's last freshwater tidal marshes, and helps to filter pollution from Lower Bucks waterways before they reach the river. A variety of flora and fauna are supported by the marsh, in particular macroinvertebrates such as crayfish and insect species. "Our cleanup will help to keep the land free of trash so that cigarette butts, bottles and grocery bags won't wash into Bristol Marsh and the Delaware River," said Shannon Fredebaugh-Siller, senior community engagement associate with the Heritage Conservancy. "By protecting the land, we protect the water, which we all rely on to drink, for recreation, and to support plant and animal diversity." The cleanup will run from 10 a.m. to noon with volunteers gathering at the northwest end of the parking lot near Bristol Borough Riverfront Park. Volunteers should bring work gloves, drinking water and a trash picking stick, if they have one, and should wear clothes appropriate for the weather and sturdy close-toed shoes. They are encouraged to preregister with Liz Barmach at ebarmach@heritageconservancy.org.

DOYLESTOWN INTELLIGENCER

East Rockhill officials say no settlement reached in federal quarry case East Rockhill supervisors said Tuesday night there was no agreement reached at a court-ordered settlement conference with representatives of Richard E. Pierson Materials Corp. over its quarry operation in the township. Pierson, of Pilesgrove, New Jersey, is the

operator of the Rockhill Quarry, which is appealing a township zoning permit denial from earlier this year as well as an injunction originally filed in the Bucks County Court of Common Pleas by the township in May. The case was moved to the U.S. District Court for the Eastern District of Pennsylvania in Philadelphia because the case involves parties from two states and because the monetary ramifications are greater than $75,000. The company has maintained an active mining permit from the Pennsylvania Department of Environmental Protection since effectively shutting down 30 years ago, by removing at least 500 tons of rock per year, the minimum requirement, from the roughly 140-acre site...

GETTYSBURG TIMES

Local governments urged to team up to meet water mandates To keep from drowning in a flood of costly water-quality mandates, local governments must collaborate. That was a bond attorney's message Thursday during a meeting of the Adams County Council of Governments (ACCOG). In attendance were approximately 30 representatives of boroughs, townships, school districts, and other entities...

HARRISBURG PATRIOT NEWS

Three Mile Island: One Group Asks To Save Plant, Another Calls This A Bailout The potential closure of Three Mile Island is a year away, and one organization is asking lawmakers to pass legislation to save the plant, nuclear power and jobs. But another group is calling this a "bailout of the uncompetitive Three Mile Island." The Citizens Against Nuclear Bailout responded to today's rally in Middletown, hosted by the Clean Jobs for Pennsylvania coalition, saying "our coalition values all sources of energy, so long as all power generation industries compete by the same rules, without government mandates or subsidies." Three Mile Island lost $300 million over the last eight years, officials from the owning company, Exelon Corp., said last year. TMI has not been profitable for six years as a result of persistently low wholesale energy prices and market rules that treat polluting plants the same as emissions-free sources of power, Exelon says. Officials have argued that nuclear power plants are not permitted to participate in clean energy programs, though they provide 93 percent of clean energy out there, and are asking legislators to "level the playing field," making TMI competitive. But the Citizens Against Nuclear Bailouts countered in a statement today: "Pennsylvania's deregulated electric industry has produced a competitive energy marketplace that empowers consumer choice and prices below the national average. A competitive marketplace has also spurred billions of dollars of private investment in new and more efficient power generating resources, supporting thousands of construction jobs, economic growth and new tax revenue for communities throughout the state."...

LANCASTER NEWSPAPERS

Public invited to review plans to reduce soil and manure runoff in Lancaster A bold initiative to let Lancaster County groups and leaders decide how to best meet required reductions in manure and soil runoff related to the Chesapeake Bay is ready for a big reveal. The newly established Lancaster Clean Water Partners is inviting the public to a release of a draft plan from 1-2:30 p.m. Wednesday, Oct. 3, at the Farm & Home Center, 1383 Arcadia Road. The draft, put together by experts and leaders from Lancaster County, will be given to the public at the meeting and attendees can then voice their likes, dislikes and new ideas. The plan will then be revised before being submitted to the state Department of Environmental Protection by the end of November. After years of dictating how reductions of nutrients and sediment would be made to fulfill Pennsylvania's commitment to the Chesapeake Bay cleanup, DEP has decided to let counties set the agenda...

Sportsmen and conservation groups to discuss common issues at Middle Creek Common ground between the wants of sportsmen and conservation groups will be on display on Friday, Oct. 5, at the Second Annual Pennsylvania Sportsmen's Forum at the Middle Creek Wildlife Management Area Visitor's Center. Sponsored by the Alliance for the Chesapeake Bay, the forum will be held from 8 a.m.-4:30 p.m. The event is free and includes a lunch and optional tour of Middle Creek. The featured speaker will be John Arway, executive director of the Pennsylvania Fish and Boat Commission.A dozen other speakers through the day will discuss stream buffers and restoration, trout conservation, landscape connectivity, food plots, hemlock restoration along Pine Creek, young forest habitat and the benefits of prescribed fire.

Editorial: Take easy steps to help reduce the threat of West Nile virus... Harlan H. Hoover, 81, of Gordonville, died Sept. 17 at Lancaster General Hospital "after contracting West Nile virus," according to his obituary in LNP. His is one of two deaths in the state attributed to the mosquito-borne virus. We can't prevent every case of West Nile virus, and, sadly, we can't completely stop it from taking lives. But there are things we should continue doing to significantly reduce this public health threat. It's been extremely wet in Lancaster County during the second half of the summer and into the beginning of autumn. That water has collected in stagnant puddles, gutters, retention ponds and thousands of other potential breeding grounds for mosquitoes. All that water has keep the threat levels for mosquitoes and West Nile virus high. Don't take our word for it...

Still green: Pennsylvania issues first foliage report; forestry expert warns colors this year could be late, muted
Pennsylvania's forests are still, for the most part, fairly green. The state Department of Conservation and Natural Resources posted its first weekly foliage report on Thursday. It notes that "the deep-green of Pennsylvania's foliage is largely unchanged throughout the state" as the fall foliage season begins. "However, foresters have noted some localized areas of early leaf drop on maple, cherry, and oak species due to the excessively wet summer and related outbreaks of fungi," it says. "Despite these setbacks, commonwealth forests are still well-stocked with leaves of over 100 tree, shrub, and vine species." Cooler, more seasonal temperatures should deliver "some great fall color," the report says. Most woody regions can expect peak color in three to four weeks, with colorful displays likely to appear first across the northern counties, according to the website. Additional reports will be posted through the end of the season — most likely for six weeks — at dcnr.pa.gov, Ryan Reed, environmental education specialist for the state Bureau of Forestry, said earlier this month. Reed said the heavy rains this year have spurred tree growth in many areas, but also have caused outbreaks of fungal diseases in some woodlands. Anthracnose, for instance, is a "fairly widespread" fungus that targets maple trees, Reed said. It can cause dead spots on leaves and premature defoliation. But, because of the diversity of Pennsylvania's tree population, the state "is a slam-dunk for fall foliage," he said...

WEST CHESTER DAILY LOCAL NEWS

State Lawmakers Asked To Take Action On Potential Nuclear Plant Closures As Pennsylvania has become a prime oil and natural gas producing state thanks to the hydraulic fracturing process in recent years, it can be easy to forget that it's also home to several nuclear power plants generating massive amounts of electricity each year. Within the next few years, though, three of those plants are set to close, potentially making the power grid in the state and the Northeast more susceptible to interruptions as other sources of power that are more prone to disruption cover the difference. Pennsylvania's bicameral Nuclear Energy Caucus, which is made up of a group of representatives and senators from the districts that host nuclear plants, have explored the economic ramifications of the potential closures at length, considering how the communities would be affected by the loss of a major employer and how energy markets would be reshaped. But this week, the caucus hosted a series of national security experts who explained that the potential impact of the closures could echo far beyond the boundaries of the state. "The Department of Defense is utterly dependent on the resilient flow of electric power in order to be able to do its jobs at home and abroad," said Paul Stockton, a former DoD official. "Things turn really bad in the South China Sea, we need to make sure that … we can ship the ammunition, get our forces to where they need, be able to deploy and sustain them. … The power generators, including nuclear power generation here in Pennsylvania, [are] absolutely vital to national security. And guess what: the bad guys know that, don't they?"...

WILLIAMSPORT SUN-GAZETTE

City Council approves joint pollution plan with township
City Council approved an agreement between the city and Loyalsock Township Thursday for the joint Chesapeake Bay Pollution Reduction Plan. The agreement, signed by Loyalsock Township Tuesday, was approved but with a requirement to have Larson Design Group and officials with the township and Williamsport Municipal Water and Sanitary Authority meet with council in October. The pollution reduction plan must be submitted by Oct. 2 to the state Department of Environmental Protection. Penalties and fines were possible if the memorandum had not been signed by Oct. 2, said Chelsea Myers, outgoing city planner. The city will have Mark Benner, engineer-in-training, Gary Knarr, zoning administrator, and Adam Winder, general manager of

the city streets and parks department, work on the process of nutrient reduction documentation, Mayor Gabriel J. Campana said. "This can't be patchwork," said Councilman Randall J. Allison, adding he is concerned about the complexities and documentation necessary to accomplish these goals. Calculations of sediment load must be made for lowering silt counts per year. The city must reduce 99,956 pounds and the township must reduce 189,429 pounds per year and has five years to accomplish the task. The estimate shows more sediment reduction must come from the township than out of the city. But the sediment reduction can't come from a part of the combined sewer system area...

Loyalsock Township to tour roads; submits stormwater plan The Loyalsock Township supervisors plan to take a tour of township roads next month to view local projects and repairs the township was involved in this year. The tour on Oct. 18 also will provide an opportunity for the supervisors to visit a number of properties damaged by flood waters over the summer. "It's the work that we did to help correct those problems and help clean (the properties) up," said Bill Burdett, township manager. "It's good to get out. They can look at the roads we've paved and any new developments going on," Burdett said. "We have a lot of good stuff to show them this time." The supervisors also will visit the township's pump station, which was repaired after recently having an electrical outage...

YORK DISPATCH

Editorial: Combine forces to fight deer-threatening diseases State Game Commission officials have been responding in recent days to dozens of reports of dead deer throughout central Pennsylvania — an issue that is neither unique nor limited to the Keystone State. The cases were reported primarily in northern Chester and southern Berks counties. Local officials are awaiting lab results to determine the cause of death but suspect the culprit is something called epizootic hemorrhagic disease (EHD). The often-fatal virus, which infects the white-tailed deer population, is no stranger to the state. Indeed, it is found nationwide. If EHD is confirmed, it won't be the only health threat faced by the state's deer population. Game Commission officials have been traveling the state to warn the public about Chronic Wasting Disease. CWD, as it is called, was first detected in Pennsylvania in 2002. It continues to spread rapidly. Among the Game Commission's tools for combating the infectious disease has been the creation of several Deer Management Areas, the most recent of which encompasses parts of Lancaster, Lebanon and Berks counites. (A map of all designated areas and other information about CWD can be found on the commission's website.)... The 2014 watershed agreement brought together Pennsylvania, five other states and the District of Columbia in a joint effort that has been credited for improving water quality in Chesapeake Bay. Similarly combining forces to manage and mitigate deer-threatening diseases could likewise strengthen hunting and related economic conditions in Pennsylvania and neighboring states. And coordinating policies among states could simplify compliance for hunters. In the meantime, Pennsylvania officials are urging hunters and other wildlife enthusiasts to assist in monitoring the problems. The Game Commission is encouraging residents to call 610-926-3136 to report dead, sick or injured deer. And it has CWD information sessions planned for Sept. 26 in Shippensburg; Sept. 27 in Brockway, Jefferson County; and Oct. 18 in Denver, Lancaster County. Details are available on the commission's website, www.pgc.pa.gov. With deer-hunting season about to begin there is no better time for state hunters to review policies regarding CWD and related issues. And no better time for game officials in Pennsylvania and neighboring states to explore ways to coordinate efforts to subdue CWD to the benefit of the region's hunting population.

WASHINGTON, D.C.

WASHINGTON POST

D.C. Council will consider law to strengthen prevention of lead poisoning in homes Safety measures to ensure that children are protected from the dangers of lead poisoning while living in District homes may soon become a lot more stringent. The D.C. Council is considering a bill to shore up weaknesses in lead-poisoning-prevention laws that in recent years have led to elevated blood lead levels for some low-income children in subsidized rental housing. "When you're thinking about vulnerable families in rental units or on vouchers, you're talking

about families who don't have the same level of agency or capacity to up and move somewhere," said council member Charles Allen (D-Ward 6), who introduced the bill this month. "So we need to make sure we're doing everything we can to make sure they're safe." The legislation, which has six co-sponsors and appears to have the support of two additional council members, would strengthen laws in several crucial ways. It would require all landlords renting property built before 1978, the year lead paint was effectively banned, to provide a clearance report to new tenants showing that inspectors have done lead-dust testing and the property is safe. It would also strengthen steps for remediation, which may include asking landlords to remove baseboards in units where lead has been found to keep potential contaminants out of a child's reach. The law would also establish a fund to offset landlord expenses when making repairs so the supply of affordable housing is not affected...

EPA orders extensive cleanup of radioactive waste site near St. Louis The Environmental Protection Agency on Thursday ordered an aggressive cleanup of a long-controversial landfill contaminated with radioactive waste near St. Louis, delighting community activists who have fought for such an outcome but angering companies who argue that the agency's own science called for a more modest cleanup. "This action reflects President Trump's commitment to return EPA to its core responsibility — clean air, clean water and clean land," EPA Acting Administrator Andrew Wheeler said at a morning news conference of the West Lake Landfill in Bridgeton, Mo., which has lingered on the agency's Superfund list since 1990. "We believe this decision strikes the right balance, while emphasizing the health and safety of the community." Wheeler's decision is the latest signal that he intends to largely follow the policy course set out by his predecessor, Scott Pruitt, who resigned from EPA in July amid a flurry of federal ethics investigations. Pruitt was eager during his tenure to balance his industry-friendly regulatory rollbacks with a commitment to accelerating cleanups at the nation's Superfund sites, saying such work was more central to the agency's mission than combating climate change and helping shift the nation to cleaner sources of energy. Wheeler, who has continued to dismantle Obama-era policies, said Thursday that his decision on West Lake "reflects our larger commitment to the nation to expedite the remediation of Superfund sites across the country." The EPA's order, which caps decades of bureaucratic delay, intense debates and public protests, is expected to take fewer than five years and cost those responsible for the site an estimated $205 million...

DELAWARE

WILMINGTON NEWS JOURNAL

After subsidy challenge in Delaware, Bloom announces new $100 million financing deal A week after a Middletown resident filed a challenge to Bloom Energy's subsidy in Delaware, the company announced a $100 million deal with Key Bank...

Rain takes a toll on Delaware farms, but not all is lost Lots of rain this spring and summer have posed serious challenges for Delaware's farmers. They're hoping for an end as falls marks the height of apple and pumpkin picking...

Whacky weather patterns present serious challenges for Delaware's farmers Prolonged rains have meant serious challenges for Delaware's farmers. But there are still plenty of apples and pumpkins for the pickin'...

MIDDLETOWN TRANSCRIPT

Delaware to distribute potassium iodide tablets The Delaware Emergency Management Agency and Delaware Division of Public Health will distribute potassium iodide tablets to Delaware residents living within a 10-mile radius of the Salem/Hope Creek Nuclear Generating Stations called the Emergency Planning Zone. The free tablets will be distributed from noon to 7 p.m. Oct. 4 at the Middletown Fire Hall, 27 W. Green St. Residents living within the 10-mile radius have received notification of the distribution via U.S. Mail. Potassium iodide will be available to residents who received it previously and whose tablets have reached the expiration date, or

those who never received the tablets before. Individuals with home or business addresses within the EPZ are eligible to receive tablets. Delaware received the tablets when it chose to participate in a program initiated by the U.S. Nuclear Regulatory Commission...

WEST VIRGINIA

CHARLESTON GAZETTE-MAIL

Landowners facing irreparable harm from MVP, lawyers argue Mountain Valley Pipeline never sufficiently showed that it would face harm without access to landowners' properties, lawyers for those landowners told the 4th Circuit Court of Appeals in Richmond, Virginia, on Tuesday. They also said that, as court battles over the pipeline continue to play out, the landowners are facing irreparable harm. Oral arguments were available on audio recording Wednesday. The case challenges the preliminary injunctions issued by three district judges that granted Mountain Valley Pipeline immediate possession in condemnation proceedings. It's the first of five pipeline hearings playing out in Richmond this week. On Friday, a panel of judges will hear arguments in two cases challenging permits issued to the Mountain Valley Pipeline, and two challenging the Atlantic Coast Pipeline. On Tuesday, though, lawyers challenged the injunction granted to developers, and their ability to take property without immediately compensating landowners. "You'd better believe losing possession is important to these landowners," Christopher Johns, a lawyer for the landowners, said. "It's substantive to them, and it makes a difference to them." Allowing early possession through a preliminary injunction through condemnation under the Natural Gas Act is far-reaching and unconstitutional, Johns argued. And Mountain Valley Pipeline's claims of irreparable harm without access to land were only possible, not inevitable, said Derek Teaney, an Appalachian Mountain Advocates lawyer. Mountain Valley Pipeline had said it would face economic loss and lose its Federal Energy Regulatory Commission certificate without speedy access to properties, Teaney said...

WV's largest coal operator fighting back against growing natural gas industry Three years ago, a group of residents in West Virginia's northern panhandle formed a new group, the Ohio Valley Jobs Alliance, and declared themselves a "voice for local jobs." A few months later, however, the group's first major action was aimed not at creating jobs, but at blocking them. In November 2015, the alliance, known as the OVJA, filed a legal appeal to challenge a key permit for construction of the Moundsville Power project, a natural gas-fired plant in Marshall County. The move was puzzling. Backers of Moundsville Power said the project would be a significant boost for the area, providing 500 jobs annually during a three-year construction period and 30 permanent jobs once it was operational. Supporters said the project was a way for residents to capture more economic gains from West Virginia's booming natural gas industry. The legal action, it turns out, was funded by Murray Energy Corp., one of the nation's largest coal producers, one of the group's leaders testified in a deposition in the case. Murray Energy's founder and CEO is Robert E. Murray, who is among the nation's best-known advocates for reviving the coal industry and cutting regulations related to it. The OVJA also is seeking to stop two other natural gas power plants proposed for West Virginia, and Murray Energy has acknowledged paying "certain legal fees" for the group. Like the Moundsville plant, the facilities proposed for Harrison and Brooke counties would provide hundreds of construction jobs for several years and then about 30 permanent positions. All told, the three plants would cost more than $2 billion to build. Power plants need several kinds of government permits, and the jobs alliance has focused its legal attacks on air-pollution permits issued by the West Virginia Department of Environmental Protection and utility "certificates of need" permits handled by the state Public Service Commission...

WEST VIRGINIA PUBLIC BROADCASTING

More Women are Becoming Farmers, Especially in W.Va. When you think of a farmer, what comes to mind? Is it a man in his 60s, with a beard, sitting on a tractor? Maybe several years ago you would be right, but the tide is changing, especially in West Virginia. "I think we've earned the respect of fellow farmers that we're here and we're for real," said Darla Stemple, who runs a farm in Aurora, West Virginia, in Preston County. She and her sister Debbie Fike run Vested Heirs Farm together. They grow 10 different vegetables and fruits, including lettuce and strawberries. Darla and Debbie's Grandparents started this farm in 1934. Through the years, the farm passed to the men in their family, until it was their brother's turn to take on the family business. "He had no interest in taking it over, so here we are," said Debbie Fike. Debbie and Darla were not ready to give up their family's land, so they stepped up to the plate, along with their friend Cindy Murphy, and Debbie's husband BJ Fike. Debbie and Darla grew up on a farm, so agriculture is nothing new to them, but being the ones in charge was, and it took some getting used to. "It either succeeds or fails on what we do today, and that's self-satisfaction," said Stemple. Even though women have made a bigger splash in farming over the last few decades, the industry is still male dominated, and Darla said sometimes when people come to the farm, they get lost looking for the farmer. "Occasionally they'll look for the man in charge. Usually you aren't going to find anyone but us here," said Stemple. 14 percent of farmers across the country are women, according to the United States Department of Agriculture. "I think we came into it at the right time. The woman in Ag is evolving, and it's more popular now than it's ever been," said Stemple...

WHEELING INTELLIGENCER

Study Looks To Connect Rail-Trails Between Pittsburgh, Cleveland Rhrough Weirton What would the best route be to expand a recreational bicycle trail through the city of Weirton, connecting existing systems and attracting visitors from across the country? Recreation officials, bicycle enthusiasts, planners and others gathered at the Millsop Community Center Thursday to collect comments for just such an idea, hoping to incorporate local feedback into a plan which would link riding trails between Pittsburgh and Cleveland. The Northern West Virginia Brownfields Assistance Center and the Rails-to-Trails Conservancy recently launched a connectivity and feasibility study for trail development in the Northern Panhandle, connecting local trails as well as those in Pennsylvania and Ohio. Eric Oberg, of the Rails-to-Trails Conservancy, explained a similar study already has been completed linking Pittsburgh to Parkersburg, helping to show the assets along the existing trailways, as well as gaps between the systems and what would be needed to complete the links. "It's a very detailed roadmap," Oberg said. In the Northern Panhandle, there are several existing trails, including the Panhandle Trail, which begins in Weirton and leads into Pennsylvania; the Yankee Trail and the Brooke Pioneer Trail in Wellsburg and the Wheeling Heritage Trail. Currently, a gap exists in the trail networks between Weirton and Wellsburg. "It's one of the trickiest spots for proposing a trail," Anna Withrow, of the Brownfields Assistance Center, explained. "We just want to look at where would be a reasonable place to put the trail."...

THE REVIEW (LIVERPOOL, OH)

Cleanup of former pottery site earns Environmental Impact Award CHARLESTON, W.Va. — During the annual 2018 West Virginia Brownfields Conference in Charleston last week, the Business Development Corporation of the Northern Panhandle (BDC), and its partners, Hancock County Commission and city of Chester, were recognized with the Environmental Impact Award for the top brownfield redevelopment project in the state for the former TS&T Potter site, now the Rock Springs Business Park, in Chester. The environmental impact award, presented by the West Virginia Brownfields Assistance Center, recognizes a project, organization, or community that has made a significant impact on the cleanup of environmental hazards through a single or multiple projects. "The award, and the efforts that made it possible, are significant on many levels," said BDC Board Chair C. William D'Alesio. "There have been years of work, behind the scenes, with the Hancock County Commission, residents of Chester, USEPA, WVDEP, and WVEDA officials that have made it possible for the BDC to acquire, remediate, and develop this former factory site." "From a professional basis, this is what we do in the background to make these projects happen," explained BDC Executive Director Patrick Ford. "Everyone focuses on the public side of things, the up-front things that you see. But when you develop a project on a brownfield, you work with funders, regulatory agencies, consultants, remediation

specialists, and contractors to satisfy all the regulatory and construction issues necessary to redevelop the site." A brownfield is a property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant...

MARYLAND

BALTIMORE CITYBIZ LIST.COM

Tradepoint Atlantic Reaches Seminal Milestone in Environmental Remediation of Sparrows Point (Wednesday) Tradepoint Atlantic, a 3,250-acre multimodal global logistics center in Baltimore, Maryland featuring an unmatched combination of access to deep-water berths, railroads, highways and storage space, announced today that in partnership with the Maryland Department of the Environment ("MDE") and the Environmental Protection Agency ("EPA"), it has reached a critical juncture in the environmental remediation of Sparrows Point, with the excavation and clean-up of the Tin Mill Canal. The man-made Tin Mill Canal on the former Bethlehem Steel site was created to allow the conveyance of contact water from steelmaking operations to pass into the site's water treatment facility. Over the years, process sediment built up in the canal. When Tradepoint Atlantic became the owner of the former steelmaking property in 2014, it quickly entered into a collaboration with the MDE and EPA to clean up and restore the iconic 3,250-acre industrial brownfield site at Sparrows Point, redeveloping the land to serve the global economy of tomorrow. Earlier this year, Tradepoint Atlantic implemented a Maintenance Cleanup Plan to excavate and remove the process sediment from the 7,500-foot Tin Mill Canal... "Restoring the Tin Mill Canal and reducing the effects of a century of steelmaking was accomplished through a robust collaboration among EPA, state and local partners," said Cosmo Servidio, Regional Administrator of the Environmental Protection Agency. "The Tin Mill Canal is an important milestone in the ongoing cleanup at Sparrows Point but it is also a model for continued partnership on a larger scale across the full area of the site."...

SALISBURY DAILY TIMES

Agriculture and aviation: A vital Maryland partnership Most people don't appreciate the size and scope of Maryland's agriculture sector. With more than 12,000 farms statewide, the industry has an economic impact of $2.2 billion each year. Split between the Eastern Shore and western shore by the Chesapeake Bay, the agricultural sector is a diverse set of markets dominated by poultry, dairy, corn, soybeans, small grains, nursery and seafood. However, with increasing competition and globalization, our farms large and small need every tool in their arsenal. One tool many people don't realize the agriculture sector relies on is small aircraft. Starting at the end of the harvest up until the freezing period, farmers rely on fixed wing and rotary wing aircraft to aerial seed cover crops. These same aircraft are used throughout the harvest to protect our crops from pests and diseases...

ANNAPOLIS CAPITAL GAZETTE

Columbia author aims to tap youthful hope for Earth's future in cautionary "The Big Melt" The week after a flash flood hit historic Ellicott City in July 2016, Ned Tillman set to work. The catastrophe, which claimed two lives and devastated the old mill town, was deemed by experts to be a 1,000-year flood — a storm that has a 1 in 1,000 chance of occurring in any given year. Many Howard County residents took some comfort in the idea that the deluge was a fluke weather event that wouldn't repeat itself and rallied behind the resilient town as business owners and residents staged a comeback. But Tillman, a Columbia scientist with two nonfiction books on the environment to his credit, saw the disaster through a different lens.He viewed it as another wake-up call to the pressing reality of climate change — and that was before the second flash flood occurred May 27 and caused even greater damage along Main Street. The author and member of the Howard County Environmental Sustainability Board decided to write his first novel to reach out to a new audience — middle and high school students — with the message that those who ignore or delay acting upon the problem of climate change are risking their very future. The result is "The Big Melt," a 237-page softcover book with an illustrated cover of two teens standing in the middle of the road in a historic-looking town...

CHESAPEAKE BAY JOURNAL

Officals find that they're all in the same boat when trying to control runoff

On the Bea Hayman Clark, the educational vessel that takes hundreds of school-age children and their teachers out on the Potomac River each year, Sam Woolford is used to teaching students what the river is like now, and what it could be like in the future. But, occasionally, he takes out the people who need to make that possible future a reality — local and state leaders. With both groups, though, there's some fundamental similarities, like learning the rules. "When I say drop the rope, that means drop the rope," Woolford said, not necessarily chiding, but emphasizing the rules before letting a group of state and local officials, along with their aides and some family members, haul in a net full of the river's fish on a mid-August trip. He repeated the instructions one more time — and made those manning the rope practice — to get the point across over the din of a couple-dozen people in conversation. The passengers boarded the boat in Alexandria, VA, for a day off from their desk work. They wanted to learn about the waterways many of them are charged with protecting, whether through enforcing existing regulations at the local level or writing new ones in the Virginia General Assembly...

Localities seek help with their role in Chesapeake region cleanup effort As the Bay region enters the next leg of the Chesapeake cleanup effort, local governments will need more help — both financially and with technical assistance — if they are to ramp up their efforts. That was the message delivered by local officials to the Chesapeake Executive Council, the top policymaking body for Bay restoration work, when it met in Baltimore in August. "Local governments can be resourceful, innovative and effective partners in watershed protection and restoration," said Bruce Williams, chair of the Chesapeake Bay Program Local Government Advisory Committee and the former mayor of Takoma Park, MD. "However, we need the tools and resources required for success." It's a message, he reminded Executive Council members, that the committee has been raising for a decade, but it is more urgent than ever as pollution control efforts needed between now and the 2025 cleanup deadline are likely to cost billions of dollars, with local governments shouldering a significant portion of the expense. The Chesapeake Bay Executive Council includes the governors of Maryland, Virginia, Pennsylvania, West Virginia, Delaware and New York; the mayor of the District of Columbia; the administrator of the U.S. Environmental Protection Agency; and the chair of the Chesapeake Bay Commission, an advisory body that represents state legislatures...

Local Government Advisory Committee is here to help — just tell us what you need What prevents you from doing more to protect the water resources in your community? Is it simply a matter of insufficient funds? Do you have staff within your organization who can plan, implement and maintain watershed protection and restoration projects if you have the funding? Do you know who to go to with questions or for guidance about reducing nutrient and sediment loads in your community? In my experience, it's a little bit of all of these that keeps local governments from doing more. This is the message the Local Government Advisory Committee to the Chesapeake Executive Council delivered to the Chesapeake Bay Program leadership when they met on Aug. 7 in Baltimore. It's the same message that the LGAC has been raising for years, but as I told the Executive Council, it's time for action! For the second year in a row, the LGAC called on the Executive Council to conduct an evaluation of the nature, sufficiency and scope of technical assistance resources and programs available to local governments for the purpose of establishing new, re-tooling existing, or expanding state and/or federal programs to achieve greater effectiveness in watershed implementation plans. To get the ball rolling, the LGAC will be convening our annual local government forum where we bring in outside experts to help us develop detailed recommendations to address a particular challenge facing local governments. This year we'll be focusing on the issue of meeting local governments' needs for technical assistance...

FREDERICK NEWS-POST

One fish, two fish, blue catfish ...huge fish Mary Groves has worked on the Potomac River for 30 years and she knows there are giant, blue, eating machines in Maryland's tidal waters. Weighing 50 or 60 pounds, a blue catfish is akin to a vacuum. As an opportunistic eater, the fish will consume smaller fish, crabs and eggs in the state's tidal rivers. In neighboring Virginia, the species has been recorded weighing over 100 pounds, and it's anticipated that some of these super-giants may already be in Maryland's waters. "It's not just one or two fish,

it's a lot," said Groves, who is the southern regional manager for Inland Fisheries at the Maryland Department of Natural Resources. Introduced in Virginia during the 1960s, the blue catfish was meant to be a sport fish for recreational anglers. But with no natural predators, the fish has swelled to four-times or more the weight of other species with which it shares an ecosystem. The solution? Eat your way out of the problem, said Ron Buckhalt, director of seafood marketing at the Maryland Department of Agriculture. Earlier this month, four state agencies announced a combined effort to reduce the number of blue catfish in the state's rivers and the Chesapeake Bay by creating a stable market that takes blue catfish from catch to plate. The Maryland Department of General Services awarded two contracts to processors — Reliant Fish Co. and Congressional Seafood Co. — that will in turn contract with fishermen to obtain Maryland blue catfish. Maryland Correctional Enterprise, which provides structured employment and training to offenders, will then buy the processed fillets from either of the companies and sell the protein source to state institutions, such as correctional facilities, higher education, hospitals and public schools. The agencies have also teamed up with the Maryland Department of Agriculture — which helps fishermen — and the Maryland Department of Natural Resources, which is looking for a way to slow the damage the invasive fish is causing to other aquatic species...

AMERICAN JOURNAL OF TRANSPORTATION

Tradepoint Atlantic reaches seminal milestone in environmental remediation of Sparrows Point Tradepoint Atlantic, a 3,250-acre multimodal global logistics center in Baltimore, Maryland featuring an unmatched combination of access to deep-water berths, railroads, highways and storage space, announced today that in partnership with the Maryland Department of the Environment ("MDE") and the Environmental Protection Agency ("EPA"), it has reached a critical juncture in the environmental remediation of Sparrows Point, with the excavation and clean-up of the Tin Mill Canal. The man-made Tin Mill Canal on the former Bethlehem Steel site was created to allow the conveyance of contact water from steelmaking operations to pass into the site's water treatment facility. Over the years, process sediment built up in the canal. When Tradepoint Atlantic became the owner of the former steelmaking property in 2014, it quickly entered into a collaboration with the MDE and EPA to clean up and restore the iconic 3,250-acre industrial brownfield site at Sparrows Point, redeveloping the land to serve the global economy of tomorrow. Earlier this year, Tradepoint Atlantic implemented a Maintenance Cleanup Plan to excavate and remove the process sediment from the 7,500-foot Tin Mill Canal. "Tin Mill Canal is living proof of tremendous progress in the overall cleanup of Sparrows Point after more than a century of steelmaking," said Maryland Environment Secretary Ben Grumbles. "The cleanup being done by Tradepoint Atlantic under Maryland Department of the Environment and EPA oversight shows the value of working in partnership to benefit Maryland's economy while ensuring the environment and public health are protected." "Restoring the Tin Mill Canal and reducing the effects of a century of steelmaking was accomplished through a robust collaboration among EPA, state and local partners," said Cosmo Servidio, Regional Administrator of the Environmental Protection Agency. "The Tin Mill Canal is an important milestone in the ongoing cleanup at Sparrows Point but it is also a model for continued partnership on a larger scale across the full area of the site."...

VIRGINIA

VIRGINIA MERCURY

Commentary: Will Virginia be late to the offsore wind party Nearly 200 government leaders, academics, and business people packed the Virginia Offshore Wind Executive Summit in Norfolk last week to stake their claims in the launch of Virginia's newest industry. "The offshore wind market is exploding," said Liz Burdock, executive director of the Business Network for Offshore Wind, in her opening remarks. If this sounds like déjà vu all over again, you're not wrong. Seven years ago, a similar crowd attended a similar conference in Virginia Beach, only to see the momentum wither away as it slowly became clear Virginia would not see an offshore wind farm any time soon. Several things have changed in the intervening years. America's first offshore wind farm is installed and running in the waters off Rhode Island, visible proof that the technology developed for European waters works in the U.S. Dramatic price declines in Europe and the U.S have pushed the industry

from a niche player to a serious competitor for investment dollars. Congress also extended the availability of the Investment Tax Credit at the end of 2015, with a phase-out that gives developers an incentive to commence construction sooner rather than later. Since then, six states have put laws in place to support a total build-out of 10,118 megawatts of offshore wind, enough to power millions of homes. Jim Bennett, Office of Renewable Energy program manager for the federal Bureau of Ocean Energy Management, told the Virginia Beach audience his office has issued a total of 12 active leases to date in federal waters up and down the East Coast...

NEWPORT NEWS DAILY PRESS

Lee Tolliver's Fishing Forecast: Florence causes fish migration, especially for white marlin There are plenty of signs that it's fall other than the "first day of" note on your calendar. The temperature hasn't been one of them — it felt like the upper 90s Wednesday — but forecasters say things are going to dip down to normal in the coming days. One of the signs around here is tropical storms, and we dodged a real bullet with Florence. She hit southeastern North Carolina as a Category 1 storm and you see all the damage. Can you imagine what a Cat 3 would be like around here? Florence likely provided a boost for one of the sure signs of fall, and that's fish migration. Several species, including cobia and red drum, are starting to feed heavily for their journey south. Flounder will head for deeper waters soon. Cooler temps will bring an uptick to the speckled trout and puppy drum fisheries. Bigger croaker will show, and spot will become more numerous...

WINCHESTER STAR

Funds could alleviate North Cameron Street flooding WINCHESTER — The city is eligible for Virginia Department of Environmental Quality (DEQ) funding to address stormwater drainage and flooding issues in the 200, 300 and 400 blocks of North Cameron Street. Winchester would have to provide a dollar-for-dollar match in order to receive the DEQ's Stormwater Local Assistance Funds. On Tuesday, Public Services Director Perry Eisenach told City Council he is hoping to receive $1.5 million for the stormwater project, meaning the city would have to allocate $750,000. Eisenach is proposing the installation of stormwater management ponds on North Cameron Street that would collect runoff and allow it to slowly seep into the ground. The soil would naturally filter the stormwater, which makes the ponds eligible for DEQ funding. Eisenach said the ideal location for the retention ponds is along the train tracks on North Cameron Street, on land owned by CSX Corp. "They understand that and are willing to work with us," Eisenach said, noting that flooding in that area is equally problematic for CSX. Eisenach said his preference would be to purchase the land from CSX, but it's too early in the process to say if that will occur. If matching funds are approved by council, the $1.5 million for stormwater management would be integrated into an overall $5 million to $6 million project to alleviate frequent flooding on North Cameron Street caused by overloaded stormwater lines flowing into the city's sewer system during heavy rainfalls. "It's going to be a multi-faceted program to achieve everything we want," Eisenach said about the project that is currently in the design phase. Council unanimously agreed to forward the DEQ funding request to its next business meeting on Oct. 9. If approved by council and the DEQ, Eisenach said the money would be available sometime next year...

MISCELLANEOUS

BLOOMBERG ENVIRONMENT

Wheeler: EPA 'Absolutely Not' Shuttering Children's Health Office The EPA decision to put its children's health chief on leave was "absolutely not" a move toward dismantling the office, Acting Administrator Andrew Wheeler said Sept. 27. Ruth Etzel, head of the Environmental Protection Agency's Office of Children's Health Protection, told colleagues that her removal wasn't for disciplinary reasons, according to a personal email from her, obtained by Bloomberg Environment. Her office works to ensure the EPA's actions and programs address children's vulnerabilities. Wheeler spoke to reporters at the agency's headquarters Sept. 27. He declined to respond to additional questions about Etzel, saying it was a personnel matter. Former EPA staff and members of the children's health community told Bloomberg Environment they're concerned the agency's action weakens the office's ability to protect children's health, and could lead to the office's closure. Etzel, a pediatrician,

joined the agency in 2015. Her office is part of the administrator's office.

EPA's Wheeler Supporting Pruitt's Superfund Cleanup Decisions EPA acting Administrator Andrew Wheeler's decisions on Superfund cleanup plans are similar to those of his predecessor, Scott Pruitt. For some environmental advocates, that is welcome news, but others, including companies, are frustrated. Wheeler signed off Sept. 27 on a final cleanup plan for part of a contaminated, radioactive landfill outside St. Louis that chopped two years and $30 million off Pruitt's proposed plan. Under this plan, the EPA's administrators under President Donald Trump are following through on their promises to engage with communities and prioritize cleanup, environmental advocates said. Wheeler's plan cuts down on the time and cost of Pruitt's plan, however, by focusing on excavating areas of higher radioactivity to minimize the total amount of waste that needs to be handled. There is "not a large difference" between his approach to Superfund remedies and Pruitt's, Wheeler said. "We're both following the president's initiatives here," he told Bloomberg Environment after signing the finalized cleanup plan for the landfill Sept. 27...

Trump's EPA Weighs Merger That Could Muffle Voice of Scientists The EPA is actively weighing a plan to merge two science offices in a bid to pare redundancies—an effort that is feeding criticism that the agency is diminishing the stature of scientists. Under the reorganization plan, the Office of Science Advisor and the Office of Science Policy would merge. The offices are currently located within the Office of Research and Development, and the shift would effectively downgrade the science adviser within the Environmental Protection Agency. The reorganization was developed by the EPA's Office of Research and Development "in order to reduce redundancies," said Jennifer Orme-Zavaleta, the agency's principal deputy assistant administrator for science. Orme-Zavaleta cast the effort as a proposed plan and downplayed the potential effect on the EPA's work: "The fact of the matter is that the Senate-confirmed assistant administrator for ORD has customarily served as the EPA science adviser, which will continue to be the case." The move could diminish the role and stature of scientists at the EPA, muffling their voice in the agency's regulatory decision-making, critics said. The shift, which was described to EPA staff in a Sept. 26 meeting, follows other moves under President Donald Trump to alter the status of agency scientists and their outside advisers...

Virginia Eyes Stricter Carbon Trading As It Preps Link With Northeast Virginia regulators are floating plans to strengthen proposed power-sector carbon dioxide controls that would link with the nine-state Northeast carbon trading regime. Virginia wants to increase the stringency of its power-sector carbon trading proposal in response to recommendations from the states in the Regional Greenhouse Gas Initiative, which Virginia hopes to join. The latest version of Virginia's plans would set a carbon emissions cap of 28 million tons in 2020, the first year of the program for the state, that would decline annually by 3 percent. The Virginia Department of Environmental Quality initially weighed a 2020 cap of either 33 million or 34 million tons of carbon emissions. Agency chief Michael Dowd will present the latest proposal to the State Air Pollution Control Board on Sept. 28. The nine RGGI states commented in April on Virginia's plans. They suggested the commonwealth call for more ambitious reductions from its power sector, citing Virginia's planned investments in energy efficiency and renewable energy. The states urged the Virginia program to dole out fewer credits allowing utilities to emit carbon, which is known as an "allowance budget." "Virginia could realize a measure of climate leadership by adopting a lower starting allowance budget than currently set forth in the proposed regulation," the states wrote...

More Fluorochemicals Research Seen as Needed to Assess Liability Federal research into fluorochemicals that are contaminating drinking water is seen as critical to the EPA's upcoming decisions about regulating the chemicals and addressing liability issues. A Democratic senator and an environmental health scientist stressed the need for more research during and after a Sept. 26 hearing about the large group of emerging contaminants called per- and polyfluoroalkyl substances, or PFAS. The chemicals are "a big problem for the Department of Defense, but likely to be an even bigger problem for industries across the country manufacturing the chemicals and products using those chemicals," Michigan Sen. Gary Peters (D) told reporters. "There will be pushback from any entity that has significant liability. That's to be expected. And that's why we need to be sure we have the research to push back against those that do not believe they're liable for these contaminants," Peters said.

Fluorochemicals are used in making heat- and stain-resistant consumer and industrial products and can affect the immune system, the thyroid, and contribute to cancer. There are an estimated 3,500 different compounds within the class of chemicals...

GOP to Environmentalists: Pay for Your Own Lawyers Republican lawmakers are criticizing courts that reimburse environmental litigants for their legal costs, and the Trump administration is asking them to change the law to make it harder to recover these costs...

Senate Passes Bill to Reduce Ocean Trash, Boost Recycling A bill to help reduce the amount of waste in the ocean and promote recycling in developing nations passed the Senate on Sept. 26. The Save Our Seas Act (S.3508) reauthorizes the National Oceanic and Atmospheric Administration Marine Debris Program and empowers other federal agencies, including for the first time, the Office of Trade Representative, to address the problems posed by ocean debris and trash. It would also support funding for research and development of bio-based alternatives to plastic or environmentally feasible improvements to materials that reduce municipal solid waste. "Hold your breath," said Sen. Dan Sullivan (R-Alaska), during a Senate Environment and Public Works Committee hearing Sept. 26, "this is a fiercely bipartisan issue." Sullivan noted that close to 9 million tons of trash wind up in oceans every year, and unraveling exactly how it gets there is critical. "This bill would strengthen the federal response to marine debris and stem the tide of ocean plastic, and we encourage the Trump administration to pursue international agreements in pursuit of this goal," he said...

GREENWIRE

EPA: Employees on edge as Trump team reorganizes EPA is reshuffling its science, human resources and regional offices, leaving staffers worried about the quality of the agency's work and about their careers. Top EPA officials yesterday informed staff that they plan to eliminate the agency's science adviser's office and merge those positions into a division within EPA's larger science shop, the Office of Research and Development, according to an employee who attended the meeting. EPA is also planning to combine its human resources office with its information technology division, sources told E&E News. These latest moves come as the Trump administration pursues a broader reorganization at the agency, including a revamp of regional offices across the country. Staffers say they're still waiting for details about how it will shake out and what it means for their jobs, but they're nervous in the meantime. Employees are "very anxious," said Joe Edgell, president of National Treasury Employees Union Chapter 280, which represents EPA employees in headquarters. "The union has been notified that there are a tremendous number of reorgs going on right now," he said. Top EPA officials are telling staff that the plans are "more efficient or more logically organized," he said. But "with reorgs come uncertainty about one's job, about one's job assignments, about the work that people do in terms of protecting the environment, so people are very anxious with that change. Given that there haven't been a lot of specifics about these reorgs, that enhances the anxiety."...

Air Pollution: EPA advances proposed repeal of Clinton-era standards EPA today set an Oct. 29 deadline for public comments on a proposed rule to ease Clinton-era requirements for monitoring of nitrogen oxides emissions from many power plants and other large industrial polluters. Acting EPA Administrator Andrew Wheeler had signed the proposal two weeks ago (*E&E News PM*, Sept. 14). In publishing the proposed rule in today's *Federal Register*, the agency said it does not intend to hold a public hearing unless someone makes a request by Thursday, Oct. 4. Under the draft rule, some 20 states and the District of Columbia would have the option of dropping a requirement for "continuous emission monitoring" of releases of nitrogen oxides (NOx) linked to downwind formation of ozone outside of their borders. Instead, they could amend their state implementation plans (SIPs) to allow for "alternate forms of monitoring requirements," the proposal says. The existing requirement for continuous monitoring dates back to the so-called 1998 NOx SIP Call. EPA predicts that repeal could save some companies money, but says that actual emissions and air quality would not be affected.

Maryland: Dog, dog, goose: Canines tapped to control bird populationvA Maryland town besieged by birds is calling on border collies to act as goose busters.vThe Ocean Pines Association voted earlier this year to

euthanize around 300 of the Canadian geese to protect local water quality (*Greenwire*, July 9). The tactic both angered residents and proved largely ineffective.vNews outlets report the geese have returned in large numbers, so the association decided this week to hire Maryland Geese Control. The association's general manager, John Bailey, says the company uses border collies trained to chase geese out of the water and off the land without harming the birds. The company will also remove nests, transport injured birds to rehabilitation centers and addle the eggs. The border collies will patrol Ocean Pines for around two months, at a cost of $625 a week.

COAL: Lawyer: Black lung doctors thought they were 'above the law' A federal appeals court heard arguments yesterday in a lawsuit filed by the families of coal miners who were denied benefits for black lung disease after a Johns Hopkins doctor insisted their X-rays did not show the disease.

Coming Clean: EPA cleaned lead-contaminated soil at Muhlenberg personal care home Sacred Heart Villa, a 100-bed personal care home in Muhlenberg, is one of the last properties contaminated with lead from a nearby battery plant to be cleaned up. The protective sleeves cordoning off newly laid soil at Sacred Heart Villa, a 100-bed personal care home in Muhlenberg Township, are gone, signaling the end of a federally ordered cleanup to remove toxic levels of lead from the soil. The former convent is one of the last properties to be cleaned under a consent order issued by the U.S. Environmental Protection Agency in 2000. Residential properties were cleaned a decade ago. Before shuttering the smokestack in 2013, the smelting process at Exide Technologies in Laureldale released tons of lead into the air during battery production at the plant. Although the cleanup is winding down, EPA soil tests show a majority of the property exceeds the safety standard set for residential properties cleaned in 2008 and 2009. The Sacred Heart cleanup targeted high-risk areas, said Khai Dao, EPA project manager for the Exide cleanup, noting sloped and wooded areas were not treated because of expected lower exposure risk. Under federal standards created in 2001, lead in bare soil is considered a hazard for children at a ratio of 400 parts per million, or ppm. The cleanup threshold near Exide's plant started at 650 ppm for residences, 1,000 ppm for commercial properties and 800 ppm to 2,000 ppm for Sacred Heart. "Even though the levels are high, the risk isn't high for exposure," Dao said. Fewer than five acres at Sacred Heart were remediated by excavating the top six inches of soil and replacing it with clean fill. For the remaining lead-contaminated areas, which include roughly eight wooded acres, the EPA will seek written agreements to restrict land use. Public health experts, though, say the cleanup isn't very clean...

PRESS OF ATLANTIC CITY

Editorial: NJ shows nation how to get toxic chemical out of drinking water Usually it's not a bad idea to let the federal government set the allowable standards for toxic substances in the nation's water and food. Federal agencies have the size and expertise to handle the challenging science. But regarding a family of chemicals used to make very tough plastics — the kind used in nonstick cookware, fabric protectors and firefighting foams — New Jersey couldn't wait. Its history of manufacturing made protecting the public more urgent. So this month the state became the first in the nation to limit one of the chemicals, PFNA (for perfluorononanoic acid). Beginning next year, water providers must monitor supplies and reduce PFNA as needed to less than 13 parts per trillion in drinking water. That's far stricter than the federal government's current health advisory. Exposure to the chemical at higher levels over time can cause liver and kidney problems, reproductive problems in men, and delays in development of fetuses and infants. The state Department of Environmental Protection said PFNA contamination has been largely an issue for the Delaware River in South Jersey, due to past discharges from a particular chemical plant. High levels of it have been found in 11 public water systems and private wells in Salem and Gloucester counties near the river. Bottlenose dolphins from Delaware Bay have been found to have the chemical in their blood at concentrations well over 100 parts per billion... The EPA may catch up with New Jersey soon. It expects to complete a national management plan for this family of chemicals by the end of the year that might include a recommendation for limits on PFOA and PFOS. These chemicals cannot be effectively removed from drinking water by most in-home water filters. Setting standards that require water suppliers to remove them is leadership by New Jersey officials that benefits everyone.

NPR

A Drifting Weedkiller Puts Prized Trees At Risk The EPA is deciding whether to let farmers keep using an

herbicide called dicamba. The chemical is controversial because it can damage nearby crops. What's less well-known: It's hurting wildlife, too. Mike Hayes and I are sitting on the patio of Blue Bank Resort, the business he owns on Reelfoot Lake, in Tennessee. The sun is going down. It's beautiful. What really catches your eye here is the cypress trees. They line the lake, and thousands of them are standing right in the water. Hayes tells me that they are more than 200 years old. They were here in 1812, when the lake was formed: A cataclysmic earthquake shook this area, the land dropped, and water from the Mississippi River rushed in and covered 15,000 acres of cypress forest. Yet these trees survived and became a home for fish and birds...

NEW YORK TIMES

EPA to Eliminate Office That Advises Agency Chief on Science WASHINGTON — The Environmental Protection Agency plans to dissolve its Office of the Science Advisor, a senior post that was created to counsel the E.P.A. administrator on the scientific research underpinning health and environmental regulations, according to a person familiar with the agency's plans. The person spoke anonymously because the decision had not yet been made public. The move is the latest among several steps taken by the Trump administration that appear to have diminished the role of scientific research in policymaking while the administration pursues an agenda of rolling back regulations. A spokesman for the E.P.A. did not return emails or phone calls requesting comment on the move. Separately on Tuesday, in an unusual move, the E.P.A. placed the head of its Office of Children's Health, Dr. Ruth Etzel, on administrative leave, while declining to give a reason for the move. Agency officials told Dr. Etzel, a respected pediatric epidemiologist, that the move was not disciplinary. As the head of an office that regularly pushed to tighten regulations on pollution, which can affect children more powerfully than adults, Dr. Etzel had clashed multiple times with Trump administration appointees who sought to loosen pollution rules. The E.P.A.'s science adviser is currently Jennifer Orme-Zavaleta, an expert on the risks of chemicals to human health who has worked at the E.P.A. since 1981, according to the agency's website. Dr. Orme-Zavaleta did not respond to emails and telephone messages requesting a response for comment...

Message

From: Lynn, Tricia [lynn.tricia@epa.gov]
Sent: 10/9/2018 4:23:28 PM
To: Grantham, Nancy [Grantham.Nancy@epa.gov]; Konkus, John [konkus.john@epa.gov]
CC: Press [Press@epa.gov]
Subject: Re: Background on OCHP and Dr. Firestone bio

I assume this is for the 3rd floor, but please let me know if you need anything from me.

Thanks!

--Tricia

From: awittenberg@eenews.net <awittenberg@eenews.net>
Sent: Tuesday, October 9, 2018 12:19 PM
To: Grantham, Nancy; Konkus, John
Cc: Press
Subject: RE: Background on OCHP and Dr. Firestone bio

Hi Nancy and John,

Thanks for setting up the interview with Michael Firestone today. I have a few questions for the press office below. My deadline is 11 a.m. tomorrow.

- We noticed that the organizational chart for EPA's regional realignment included with Admin. Wheeler's Sept. 6 email did not include children's health in the immediate office area, but the organizational chart posted on the intranet site linked in Henry Darwin's Oct. 3 email does include children's health. What changed? Why did EPA decide to include children's health in the later organizational chart?

- I also saw that for the past two fiscal years, the Trump administration has proposed significantly decreasing OCHP's budget (from about $5.4 million to $1.4 million), and thirding its staff (from 15.4 FTEs to 4.9 FTEs). I will be mentioning that in the article and wanted to give you the opportunity to respond as there have been questions about OCHP's future.

- What is the status of the federal lead strategy? What is the hold up? I know OCHP and Dr. Etzel had been working on it as part of the President's Task Force on Environmental Health Risks and Safety Risks to Children.

- Is there any update regarding Ruth Etzel's status? How long is her administrative leave expected to last? At what point would EPA look to replace her permanently?

- I've talked to a number of people who have worked closely with OCHP and they all sing Michael Firestone's praises. But a few have also said they believe a pediatrician would be better equipped to run OCHP. Do you have any response to that criticism?

Thanks again,

Ariel

Ariel Wittenberg
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From: Grantham, Nancy <Grantham.Nancy@epa.gov>
Sent: Tuesday, October 09, 2018 9:06 AM
To: Konkus, John <konkus.john@epa.gov>
Cc: Ariel Wittenberg <awittenberg@eenews.net>
Subject: Re: Background on OCHP and Dr. Firestone bio

Hi Ariel - I will meet you at the north entrance at 11 am. Thanks

Sent from my iPhone

On Oct 9, 2018, at 9:01 AM, Konkus, John <konkus.john@epa.gov> wrote:

> In person will be fine. Nancy will be in touch.
>
> John Konkus
> Environmental Protection Agency
> Deputy Associate Administrator
> Office of Public Affairs
>
> On Oct 9, 2018, at 8:48 AM, Ariel Wittenberg <awittenberg@eenews.net> wrote:
>
>> I thought this was in person, which is my strong preference. As we discussed Friday, I was planning to come to the north entrance at 11 am. Nancy, please let me know if that still works.
>>
>> I'll be on my cell this morning— Ex. 6
>>
>> Ariel
>>
>> Ariel Wittenberg
>> Reporter, E&E News

202-737-4557
awittenberg@eenews.net

Sent from my iPhone

On Oct 9, 2018, at 8:13 AM, Konkus, John <konkus.john@epa.gov> wrote:

> Ariel: I'm looping you in the Nancy who will take it from here. This can be in person at EPA HQ or over the phone.
>
> Thank you,
>
> John
>
> ---
>
> **From:** Ariel Wittenberg [mailto:awittenberg@eenews.net]
> **Sent:** Friday, October 5, 2018 3:47 PM
> **To:** Konkus, John <konkus.john@epa.gov>
> **Subject:** RE: Background on OCHP and Dr. Firestone bio
>
> Thanks!
>
> Ariel
>
> ---
>
> **From:** Konkus, John <konkus.john@epa.gov>
> **Sent:** Friday, October 05, 2018 3:41 PM
> **To:** Ariel Wittenberg <awittenberg@eenews.net>
> **Subject:** Background on OCHP and Dr. Firestone bio
>
>> Dr. Firestone's (bio attached) regulatory work in the past has included:
>>
>> - Certification & Training (C&T) of Pesticide Applicators [FIFRA]
>> - Pesticide Worker Protection Regulations
>> - 2008 Lead NAAQS
>>
>> Ongoing regulations he's recently worked on include:
>>
>> ? National Primary Drinking Water Regulations: Regulation of Perchlorate
>> ? Endangerment Finding for Lead Emissions from Piston-Engine Aircraft Using Leaded Aviation Gasoline

? Certification of Pesticide Applicators (CPA) Rule; Reconsideration of the Minimum Age Requirements
? Agricultural Worker Protection Standard (WPS); Reconsideration of Several Requirements Incl. Rescinding Childhood Age Restrictions

Regulatory workgroups other OCHP staff are currently participating on other include:

- "Lead; Renovation, Repair, and Painting Program for Public and Commercial Buildings [TSCA Section 402(c)(3)]"
- National Primary Drinking Water Regulations for Lead and Copper: Regulatory Revisions
- Lead; Residential Lead Dust Hazard Standards [TSCA Section 403]
- Trichloroethylene (TCE) - TSCA Section 6(a); aerosol degreasing and spot cleaning in dry cleaning facilities
- Trichloroethylene (TCE); Rulemaking Under TSCA §6(a); Vapor Degreasing
- Paint Removers - Methylene Chloride (MC) and N-Methylpyrrolidone (NMP) - TSCA Section 6(a)
- Cyanotoxin Ambient Water Quality Criteria for Recreational Waters
- Regulation of Persistent, Bioaccumulative and Toxic (PBT) Chemicals under TSCA 6 (h)
- Regulatory Determinations for CCL 4
- National Primary Drinking Water Regulations: Group Regulation of Carcinogenic Volatile Organic Compounds (VOCs)
- "Polychlorinated Biphenyls (PCBs); Reassessment of Use Authorizations [TSCA Section 6(e)]"
- "Lead Wheel Weights; Regulatory Investigation [TSCA Section 21]"
- PM NAAQS Review
- Review of National Ambient Air Quality Standards (NAAQS) for Sulfur Dioxide (SO2)

Message

From: Abboud, Michael [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B6F5AF791A1842F1ADCC088CBF9ED3CE-ABBOUD, MIC]
Sent: 10/14/2018 7:51:14 PM
To: Beach, Christopher [beach.christopher@epa.gov]; Konkus, John [konkus.john@epa.gov]; Hewitt, James [hewitt.james@epa.gov]; Block, Molly [block.molly@epa.gov]
Subject: Fwd: CBS NEWS INQUIRY - ON DEADLINE

Flagging for everyone.

Sent from my iPhone

Begin forwarded message:

> **Resent-From:** <Press@epa.gov>
> **From:** "Busch, Nicole" <BuschN@cbsnews.com>
> **Date:** October 14, 2018 at 3:34:27 PM EDT
> **To:** "Block, Molly" <block.molly@epa.gov>, "Lynn, Tricia" <lynn.tricia@epa.gov>, Press <Press@epa.gov>
> **Subject: CBS NEWS INQUIRY - ON DEADLINE**
>
> Hi Molly and Tricia,
> CBS News correspondent, Anna Werner, and I are working on a piece scheduled to air on CBS This Morning tomorrow morning regarding Dr. Ruth Etzel being placed on administrative leave. We sent a request for comment to EPA's main media email address last Wednesday and spoke with Mr. Darwin on Thursday at the Children's Health Protection Advisory Committee meeting (speaking briefly with you both as well).
> We would like to reiterate if there are additional comments you would like to provide concerning Dr. Etzel's leave and or to criticism from both Dr. Etzel and other children's health advocates that the EPA is not doing enough to regulate risks posed to children's health or making it a priority-- please do so by tonight.
>
> Please respond by 9pm EST this evening.
> Thank you,
> Nicole
> 212-975-2383

Message

From: Abboud, Michael [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B6F5AF791A1842F1ADCC088CBF9ED3CE-ABBOUD, MIC]
Sent: 10/15/2018 7:56:52 PM
To: Michael Bastasch [Mike@dailycallernewsfoundation.org]; Chris White [chris@dailycallernewsfoundation.org]
Subject: Updated statement on Etzel

Mike and Chris, since there's been a lot of news on this today I want to make sure you have our most up to date statement regarding Dr. Ruth Etzel.

Deliberative Process / Ex. 5

Michael Abboud
U.S. Environmental Protection Agency
Office of Public Affairs
M: Ex. 6

Message

From: Abboud, Michael [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B6F5AF791A1842F1ADCC088CBF9ED3CE-ABBOUD, MIC]
Sent: 9/26/2018 5:36:04 PM
To: Michael Bastasch [Mike@dailycallernewsfoundation.org]; Hewitt, James [hewitt.james@epa.gov]
Subject: RE: What the hell is the EPA's head of child health....

This is what we've been saying.

"We do not comment on personnel matters." -- **Donna Vizian, Principal Deputy Assistant Administrator, Office of Administration and Resources Management**

"EPA Headquarters has a number of specialty focused offices including the children's health, environmental justice, civil rights, and small business offices and these offices will continue to be a part of headquarters and regional organizations. Children's health is and has always been a top priority for the Trump Administration and the EPA in particular is focused on reducing lead exposure in schools, providing funds for a cleaner school bus fleet, and cleaning up toxic sites so that children have safe environments to learn and play." **– John Konkus, EPA spokesman**

From: Michael Bastasch [mailto:Mike@dailycallernewsfoundation.org]
Sent: Wednesday, September 26, 2018 1:02 PM
To: Hewitt, James <hewitt.james@epa.gov>; Abboud, Michael <abboud.michael@epa.gov>
Subject: Fwd: What the hell is the EPA's head of child health....

So what's the deal with this?

---------- Forwarded message ---------
From: **Christopher Bedford** <bedford@dailycallernewsfoundation.org>
Date: Wed, Sep 26, 2018 at 12:47 PM
Subject: What the hell is the EPA's head of child health....
To: Energy Team <energy@dailycallernewsfoundation.org>

THE TRUMP ADMINISTRATION -- "E.P.A. Places the Head of Its Office of Children's Health on Leave," by NYT's Coral Davenport and Roni Caryn Rabin: "The [EPA] on Tuesday placed the head of its Office of Children's Health Protection on administrative leave, in an unusual move that several observers said appeared to reflect an effort to minimize the role of the office.

"Dr. Ruth Etzel, a pediatrician and epidemiologist who has been a leader in children's environmental health for 30 years, joined the E.P.A. in 2015, after having served as a senior officer for environmental health research at the World Health Organization.

"She was placed on administrative leave late Tuesday and asked to hand over her badge, keys and cellphone, according to an E.P.A. official familiar with the decision who was not authorized to discuss the move and asked not to be identified." NYT

--
Christopher Bedford
Editor in Chief
The Daily Caller News Foundation

--
Michael Bastasch
Daily Caller News Foundation

Message

From: Packard, Elise [Packard.Elise@epa.gov]
Sent: 9/26/2018 12:53:16 PM
To: Wulffen, Rebecca [Wulffen.Rebecca@epa.gov]; Blake, Wendy [Blake.Wendy@epa.gov]
Subject: RE: FYI.

thx

Elise B. Packard
Associate General Counsel for Civil Rights and Finance
U.S. EPA Office of General Counsel, Rm. 7353C
(202) 564-7729

From: Wulffen, Rebecca
Sent: Wednesday, September 26, 2018 8:22 AM
To: Blake, Wendy <Blake.Wendy@epa.gov>; Packard, Elise <Packard.Elise@epa.gov>
Subject: FW: FYI.

FYI-

Rebecca Wulffen
Assistant General Counsel
U.S. Environmental Protection Agency
Office of the General Counsel
General Law Office, Employment Law Practice Group
Phone (202) 564-4858

From: Wooden-Aguilar, Helena
Sent: Wednesday, September 26, 2018 8:21 AM
To: Wulffen, Rebecca <Wulffen.Rebecca@epa.gov>; Coomber, Robert <coomber.robert@epa.gov>; Patterson, Nicole <Patterson.Nicole@epa.gov>; Meighan, Alexandra <Meighan.Alexandra@epa.gov>
Subject: FYI.

https://www.nytimes.com/2018/09/26/climate/epa-etzel-children-health-program.html

E.P.A. Places the Head of Its Office of Children's Health on Leave

Sept. 26, 2018

The Environmental Protection Agency's headquarters in Washington in July. On Tuesday, the E.P.A. placed Dr. Ruth Etzel, the head of its Office of Children's Health Protection, on administrative leave.Ting Shen/Reuters

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WASHINGTON — The Environmental Protection Agency on Tuesday placed the head of its Office of Children's Health Protection on administrative leave, in an unusual move that several observers said appeared to reflect an effort to minimize the role of the office.

Dr. Ruth Etzel, a pediatrician and epidemiologist who has been a leader in children's environmental health for 30 years, joined the E.P.A. in 2015, after having served as a senior officer for environmental health research at the World Health Organization. She was placed on administrative leave late Tuesday and asked to hand over her badge, keys and cellphone, according to an E.P.A. official familiar with the decision who was not authorized to discuss the move and asked not to be identified.

An E.P.A. spokesman, John Konkus, confirmed that Dr. Etzel had been placed on administrative leave and declined to give the reason.

The E.P.A.'s Office of Children's Health Protection, created by President Bill Clinton in 1997, is tasked with seeing that agency regulations and programs take into account the particular vulnerabilities of children, babies and fetuses. Children are more vulnerable than adults to pollution and other potential exposure because their bodies are still developing and because they eat, drink and breathe

more in proportion to their size. In addition, some of their behaviors, such as crawling or putting things in their mouths, potentially expose them to chemicals or toxins.

Several people within the E.P.A. or who work closely with the agency said that Dr. Etzel's dismissal is one of several recent developments that have slowed the work of the children's health office. One person cited a proposal outlining a strategy for reducing childhood lead exposure, which had been in development for over a year with the involvement of 17 federal agencies, and which has been stalled since early July.

The Office of Children's Health Protection is technically housed in the office of the E.P.A. administrator, Andrew Wheeler, who has served as the agency's acting administrator since July.

Under Mr. Wheeler and his predecessor, Scott Pruitt, who left the position earlier this year amid investigations into his oversight of the agency, the E.P.A. has aggressively pursued an agenda of rolling back environmental restrictions on numerous pollutants, arguing that the regulations are overly strict or that they burden industry.

"This seems like a sneaky way for the E.P.A. to get rid of this program and not be upfront about it," said Dr. Mona Hanna-Attisha, the director of the pediatric residency program at Hurley Medical Center, a teaching hospital affiliated with Michigan State University, whose analysis of blood tests in Flint, Mich. — a community that became caught up in a lead crisis affecting its drinking water — played a key role in showing that residents were being poisoned by the lead. Dr. Hanna-Atisha called Dr. Etzel "an international leader in children's health."

The decision to put the department head on administrative leave "is highly unusual," said Joseph Goffman, a former senior counsel for the E.P.A. during the Obama administration.

The office Dr. Etzel oversees is small, with a budget of about $2 million and 15 full-time employees in Washington and 10 regional children's health coordinators, some of whom have other responsibilities in addition to children's health.

Mr. Konkus, the E.P.A. spokesman, said the Trump administration had no intention to diminish or eliminate an office designed to protect children's health. "Children's health is and has always been a top priority for the Trump administration and the E.P.A. in particular is focused on reducing lead exposure in schools, providing funds for a cleaner school bus fleet and cleaning up toxic sites so that children have safe environments to learn and play," he said in an emailed statement.

For more news on climate and the environment, follow @NYTClimate on Twitter.

Coral Davenport covers energy and environmental policy, with a focus on climate change, from the Washington bureau. She joined The Times in 2013 and previously worked at Congressional Quarterly, Politico and National Journal. @CoralMDavenport • Facebook

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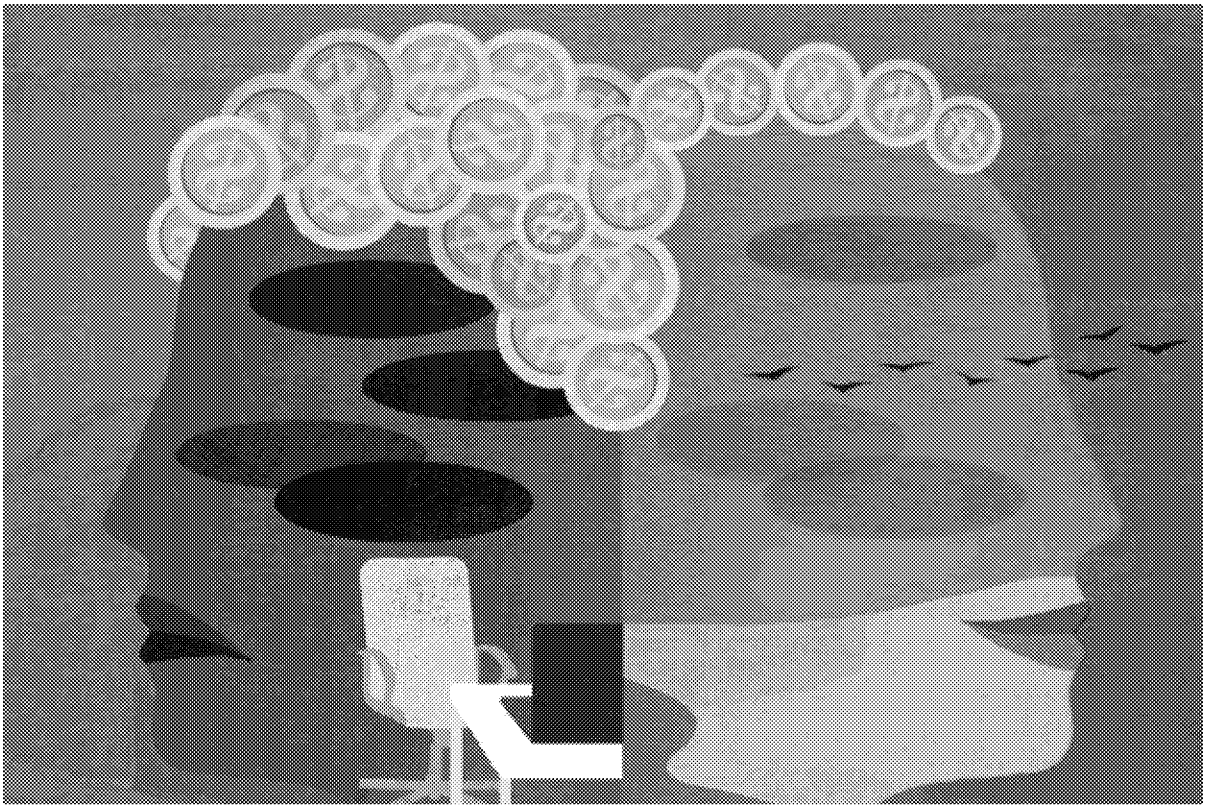

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Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

Message

From: Blake, Wendy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=902120F35D04482E86206D296AD452FC-BLAKE, WENDY]
Sent: 10/15/2018 4:02:28 PM
To: Packard, Elise [Packard.Elise@epa.gov]; Youngblood, Charlotte [Youngblood.Charlotte@epa.gov]
Subject: Fwd: Fw:

FYI

Sent from my iPhone

Begin forwarded message:

From: "Wulffen, Rebecca" <Wulffen.Rebecca@epa.gov>
Date: October 15, 2018 at 12:00:14 PM EDT
To: "Blake, Wendy" <Blake.Wendy@epa.gov>
Subject: Fw:

Rebecca Wulffen

Assistant General Counsel

U.S. Environmental Protection Agency

Office of the General Counsel

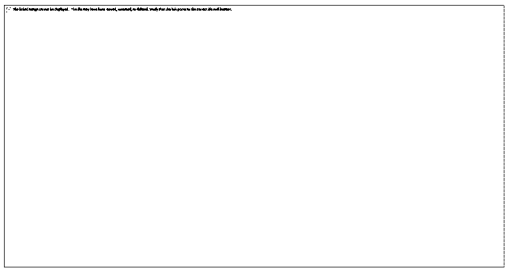
General Law Office, Employment Law Practice Group

Phone (202) 564-4858

Fax (202) 564-5432

From: Vizian, Donna
Sent: Monday, October 15, 2018 11:48 AM
To: Wulffen, Rebecca
Subject:

https://www.cbsnews.com/news/epa-childrens-health-official-ruth-etzel-epa-kids-disposable/



Sidelined children's health official says EPA inaction means "kids are disposable"

www.cbsnews.com

Dr. Ruth Etzel, the agency's top pediatric expert who was placed on administrative leave, says the administration has no intention of taking action against lead in children's environments

Message

From: Blake, Wendy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=902120F35D04482E86206D296AD452FC-BLAKE, WENDY]
Sent: 9/27/2018 5:32:15 PM
To: Brazauskas, Joseph [brazauskas.joseph@epa.gov]
Subject: FW: FYI.

Article we referenced this morning.

W

Wendy L. Blake
Associate General Counsel
General Law Office
Office of General Counsel
U.S. Environmental Protection Agency
phone: (202) 564-1821
fax: (202) 564-5433

From: Wulffen, Rebecca
Sent: Wednesday, September 26, 2018 8:22 AM
To: Blake, Wendy <Blake.Wendy@epa.gov>; Packard, Elise <Packard.Elise@epa.gov>
Subject: FW: FYI.

FYI-

Rebecca Wulffen
Assistant General Counsel
U.S. Environmental Protection Agency
Office of the General Counsel
General Law Office, Employment Law Practice Group
Phone (202) 564-4858

From: Wooden-Aguilar, Helena
Sent: Wednesday, September 26, 2018 8:21 AM
To: Wulffen, Rebecca <Wulffen.Rebecca@epa.gov>; Coomber, Robert <coomber.robert@epa.gov>; Patterson, Nicole <Patterson.Nicole@epa.gov>; Meighan, Alexandra <Meighan.Alexandra@epa.gov>
Subject: FYI.

https://www.nytimes.com/2018/09/26/climate/epa-etzel-children-health-program.html

E.P.A. Places the Head of Its Office of Children's Health on Leave

Sept. 26, 2018

The Environmental Protection Agency's headquarters in Washington in July. On Tuesday, the E.P.A. placed Dr. Ruth Etzel, the head of its Office of Children's Health Protection, on administrative leave.Ting Shen/Reuters

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Coral Davenport covers energy and environmental policy, with a focus on climate change, from the Washington bureau. She joined The Times in 2013 and previously worked at Congressional Quarterly, Politico and National Journal. @CoralMDavenport • Facebook

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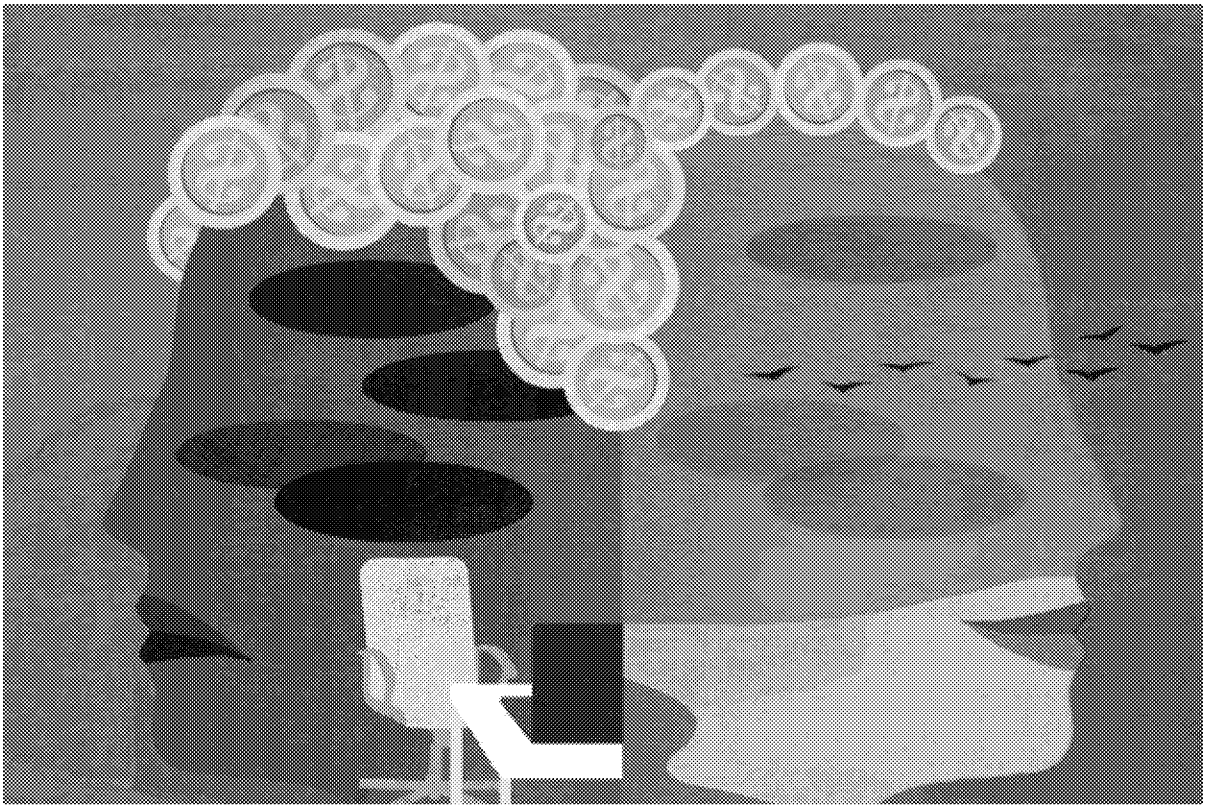

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Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

Message

From: Darwin, Veronica [darwin.veronica@epa.gov]
Sent: 9/21/2018 8:16:49 PM
To: Jackson, Ryan [jackson.ryan@epa.gov]; Konkus, John [konkus.john@epa.gov]; Block, Molly [block.molly@epa.gov]; Grantham, Nancy [Grantham.Nancy@epa.gov]; Bennett, Tate [Bennett.Tate@epa.gov]
Subject: Oct 1 Children's Health Materials
Attachments: Children's Health October 2018 092118.docx; Children's Health October 2018 One Pager.docx

Hi,
Find attached the draft Children's Health materials highlighting some of the EPA initiatives currently underway. I organized the initiatives based on the priorities of the President's Task Force on the Protection of Children from Environmental Health Risks and Safety Risks. It is not a comprehensive list of EPA initiatives related to children's health - the intent is to highlight some of the initiatives and refer the reader to EPA's Children's Environmental Health webpage. We'll need to update the webpage to make sure all the appropriate links are accessible. I worked with Angela Hackel in the Office of Children's Health Protection in drafting the report.

I need your feedback. I'm happy to edits as needed. OPA will do their magic with the document once finalized.

Tate - I attached a draft one-pager for your review.

-----Original Message-----
From: Jackson, Ryan
Sent: Tuesday, September 18, 2018 7:50 AM
To: Konkus, John <konkus.john@epa.gov>; Block, Molly <block.molly@epa.gov>; Grantham, Nancy <Grantham.Nancy@epa.gov>; Darwin, Veronica <darwin.veronica@epa.gov>
Subject:

Deliberative Process / Ex. 5

Also I know this is quick turnaround but I need to have a draft of what this may look like on Friday.

Ryan Jackson
Chief of Staff
U.S. EPA
Ex. 6

Message

From: Darwin, Veronica [darwin.veronica@epa.gov]
Sent: 9/21/2018 4:51:37 PM
To: Konkus, John [konkus.john@epa.gov]
CC: Grantham, Nancy [Grantham.Nancy@epa.gov]; Block, Molly [block.molly@epa.gov]
Subject: RE: children's health

Hi again. The list doesn't include grant amounts. Since they have a list of grants narrowed down, I hope it won't be too much work to add grant amount to the query, pretty please.

From: Konkus, John
Sent: Friday, September 21, 2018 11:41 AM
To: Darwin, Veronica <darwin.veronica@epa.gov>
Cc: Grantham, Nancy <Grantham.Nancy@epa.gov>; Block, Molly <block.molly@epa.gov>
Subject: Fwd: children's health

Here it is!

Sent from my iPhone

Begin forwarded message:

> **From:** "Binder, Bruce" <Binder.Bruce@epa.gov>
> **Date:** September 21, 2018 at 11:39:52 AM EDT
> **To:** "Konkus, John" <konkus.john@epa.gov>
> **Cc:** "Sylvester, Kenneth" <Sylvester.Kenneth@epa.gov>, "Polk, Denise" <Polk.Denise@epa.gov>, "Binder, Bruce" <Binder.Bruce@epa.gov>
> **Subject: children's health**
>
> John, please see the attached document that contains a list of active grants that appear to meet your request for grants that may relate to children's health issues or include children's health activities. Some of the grants included on this list may include general references to "humans", "youth", "infants", etc in the title or project description or both that could possibly be linked to children's health so they are included on the list to be more inclusive. It is possible that there are other active grants that relate to children's health that may not be on the list because key words related to children's health may not have been included in the project title or description.
>
> If you need further information pertaining to the grants on the attached list, OGD encourages you to contact the programmatic personnel involved in managing these grants directly. To assist you in these communications, OGD has also provided the EPA "Project Officer" and the "AAShip" as separate columns in the document. Although there is a primary office within OA, the Office of Children's Health Protection (OCHP), that handles children's health issues, the grants identified in the attached list are programmatically managed by a wide variety of program offices and NPMs. Any grants managed by OCHP are denoted in the list as Program Code: "CH".
>
> OGD has also included below a list of CFDA (Catalog of Federal Domestic Assistance) entries that cover programs that may issue grants that have children's health related components or activities. The ones on this list relate to CFDAs that pertain to the active grants identified in the grant chart that is attached to the email. We have also put an asterisk to denote those CFDAs where children's health issues are actually mentioned in the content of the CFDA, usually in the objectives section.
>
> Thanks and let us know if you need further information.

Potential CFDA's that fund projects relating to Children's Health Activities				
CURRENT/ESTABLISHED PROGRAMS			PROPOSED PROGRAMS IN DEVELOPMENT	
CFDA No.	CFDA Title		CFDA No.	CFDA Title
* 66.110	Healthy Communities Grant Program		TBD	Lead Testing in Schools and Child Care program (Office of Water)
* 66.609	Protection of Children from Environmental Health Risks			
* 66.701	Toxic Substances Compliance Monitoring Cooperative Agreements			
* 66.707	TSCA Title IV State Lead Grants Certification of Lead-Based Professionals			
* 66.818	Brownfields Assessment and Cleanup Cooperative Agreements			
66.032	State Indoor Radon Grants			
66.034	Surveys, Studies, Research, Investigations, Demonstrations, and Special Purpose Activities Relating to the Clean Air Act			
66.040	State Clean Diesel Grant Program			
66.204	Multipurpose Grants to States and Tribes			
66.475	Gulf of Mexico Program			
66.481	Lake Champlain Basin Program			
66.509	Science To Achieve Results (STAR) Research Program			
66.511	Office of Research and Development Consolidated Research/Training/Fellowships			
66.516	P3 Award: National Student Design Competition for Sustainability			
66.604	Environmental Justice Small Grant Program			
66.700	Consolidated Pesticide Enforcement Cooperative Agreements			
66.716	Consolidated Pesticide Enforcement Cooperative Agreements			
66.802	Superfund State, Political Subdivision, and Indian Tribe Site-Specific Cooperative Agreements			
66.926	Indian Environmental General Assistance Program (GAP)			
66.951	Environmental Education Grants			

Bruce S. Binder
United States Environmental Protection Agency
Office of Grants and Debarment
Senior Associate Director for Grants Competition
202-564-4935
Ex. 6

Message

From: Coomber, Robert [coomber.robert@epa.gov]
Sent: 9/27/2018 4:51:15 PM
To: Patterson, Nicole [Patterson.Nicole@epa.gov]; Meighan, Alexandra [Meighan.Alexandra@epa.gov]; Corbett, Krysti [Corbett.Krysti@epa.gov]; Wulffen, Rebecca [Wulffen.Rebecca@epa.gov]
CC: Vizian, Donna [Vizian.Donna@epa.gov]
Subject: FW: OCHP Documents
Attachments: Response to Vendor Transition Package Inquiry.docx

Hey Folks,

Attached is the report I sent to Helena on Tuesday. Sorry I didn't send it to you earlier.

Best,

Bob

Robert D. Coomber
Senior Labor Attorney
Labor and Employee Relations Division
Desk Phone: (202) 564-0955
Cell Phone: Ex. 6
coomber.robert@epa.gov

From: Coomber, Robert
Sent: Tuesday, September 25, 2018 12:24 PM
To: Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>
Subject: FW: OCHP Documents

Helena,

Please see the final report attached.

Best,

Bob

Robert D. Coomber
Senior Labor Attorney
Labor and Employee Relations Division
Desk Phone: (202) 564-0955
Cell Phone: Ex. 6
coomber.robert@epa.gov

From: Cunningham, Bisa
Sent: Tuesday, September 25, 2018 9:51 AM
To: Coomber, Robert <coomber.robert@epa.gov>
Cc: Viney, Barbara <Viney.Barbara@epa.gov>
Subject: RE: OCHP Documents

Good morning Bob –

Please see attached as discussed yesterday. Please let us know if you need anything additional.

r/s

Bisa Cunningham
Director, Diversity, Recruitment, & Employee Services Division
Environmental Protection Agency
Office of Administration and Resources Management
Office of Human Resources, WJC North (Room 1402 Y/Z)
Office: 202-564-6635
Mobile: Ex. 6
Email: Cunningham.Bisa@epa.gov

*Great organizations are a group of **all** leaders, where everyone is taking personal responsibility for the success of the team and their individual influence on the customer and on one another. (James C. Hunter)*

From: Cunningham, Bisa
Sent: Monday, September 24, 2018 11:20 AM
To: Coomber, Robert <coomber.robert@epa.gov>
Cc: Viney, Barbara <Viney.Barbara@epa.gov>; Cunningham, Bisa <cunningham.bisa@epa.gov>
Subject: OCHP Documents

Good morning Bob –

I have had an opportunity to discuss with Barbara and the vendor regarding the ability to provide copies of the raw data; including interviews conducted to support the Climate Assessment and the results of the 360 conducted on the OCHP supervisors.

- We cannot provide the notes from the interviews conducted to support the Climate Assessment because Barbara never received copies of any interview notes and the vendor destroyed her copy of the interview notes, consistent with her practice to ensure confidentiality for all participants.

- Regarding the results of the 360 assessments, Barbara never received the information from the vendor, that information was given to each employee participant only. The vendor is unable to provide the Agency with copies of the raw information supporting the 360 because it would violate the agreement (Statement of Work/Contract with the EPA) and the standards under which she undertook the work. Additionally, each employee participated based on her assurances of confidentiality.

The vendor did provide 8 separate deliverables to Barbara and Helena, all of which are included as attachments and which are identified below.

- TO17-TD13_Vendor Transition Memo.docx
- OCHP climate Assessment Brief.pptx
- OCHP OD Forward Steps All Hands.pptx
- OCHP Transformation High Level Process Slide.pptx
- Memo on OCHP Transformation Status and Recommended Steps.docx
- OCHP Climate Assessment Brief_RSSPD.pptx
- OCHP SWOT Analysis Summary Slide.pptx
- Follow-up information on recommendation 1

Some alternatives to getting the information you are seeking that I discussed with Barbara and the vendor who conducted/oversaw this work include:

- Asking each employee who received a 360 assessment to voluntarily provide Helena with a copy of the their assessment.
- LER could conduct an independent administrative investigation with OCHP employees to obtain statements and information suitable for LER's use.

Please let me know if you need additional information or if further discussion is necessary. For your convenience, I am including an electronic link to the SOW and to the standards that govern conflict resolution work under the Workplace Solutions Program.

> The Contractor shall ensure that ADR professionals serving as neutral third parties under this contract receive information about and perform in accordance with ethical codes applicable to the practice of dispute resolution professionals. Relevant examples of ethical codes include those adopted by the American Arbitration Association, American Bar Association, Association for Conflict Resolution and International Coaching Federation. (http://www.acrnet.org/uploadedFiles/Practitioner/ModelStandardsofConductforMediatorsfinal05(1)(1).pdf); the International Association of Facilitators (http://www.iaf-world.org/aboutiaf/CodeofEthics.aspx); and the International Association for Public Participation (http://iap2.affiniscape.com/displaycommon.cfm?an=1&subarticlenbr=8).
>
> The Contractor shall remove ADR professionals from projects conducted under this contract if they do not conduct their practice in adherence with the statutory provisions or court rules and ethical codes appropriate to the services that they are providing.

SOW: https://www.epa.gov/sites/production/files/2018-06/documents/cprs_contract_statement_of_work_0.pdf

r/s

Bisa Cunningham
Director, Diversity, Recruitment, & Employee Services Division
Environmental Protection Agency
Office of Administration and Resources Management
Office of Human Resources, WJC North (Room 1402 Y/Z)
Office: 202-564-6635
Mobile: Ex. 6
Email: Cunningham.Bisa@epa.gov

*Great organizations are a group of **all** leaders, where everyone is taking personal responsibility for the success of the team and their individual influence on the customer and on one another. (James C. Hunter)*

Message

From: Vizian, Donna [Vizian.Donna@epa.gov]
Sent: 10/5/2018 5:15:38 PM
To: Corbett, Krysti [Corbett.Krysti@epa.gov]
Subject: Re: RE:

Ok. Thanks.

On Oct 5, 2018, at 9:57 AM, Corbett, Krysti <Corbett.Krysti@epa.gov> wrote:

Personal Matters / Ex. 6

Krysti Corbett
Director
Labor and Employee Relations Division
Desk Phone: (202) 564-6295
Mobile: (202) 579-1681
corbett.krysti@epa.gov

From: Vizian, Donna
Sent: Friday, October 5, 2018 12:48 PM
To: Corbett, Krysti <Corbett.Krysti@epa.gov>
Subject: Fwd:

I've never been asked the question of giving details of a personnel action to Congress. Do you know the answer?

Begin forwarded message:

> **From:** "Jackson, Ryan" <jackson.ryan@epa.gov>
> **Date:** October 5, 2018 at 8:32:20 AM PDT
> **To:** "Wooden-Aguilar, Helena" <Wooden-Aguilar.Helena@epa.gov>, "Leopold, Matt (OGC)" <Leopold.Matt@epa.gov>, "Darwin, Veronica" <darwin.veronica@epa.gov>, "Lyons, Troy" <lyons.troy@epa.gov>, "Vizian, Donna" <Vizian.Donna@epa.gov>
>
> All – we received the attached letter which I would like to respond too soon rather than later which I think will be an easy response.
>
> The response can be signed by Troy like normal, but Helena will you take on drafting the first draft of the response?

Deliberative Process Privilege/Ex. 5

Deliberative Process / Ex. 5

Thanks.

Ryan Jackson
Chief of Staff
U.S. Environmental Protection Agency
Ex. 6

Message

From: Meighan, Alexandra [Meighan.Alexandra@epa.gov]
Sent: 10/10/2018 12:52:10 PM
To: Corbett, Krysti [Corbett.Krysti@epa.gov]
Subject: RE: OCHP phone log.docx

Thanks.
Did you hear from Kevin Miller yesterday? I asked him to reach out to you regarding the Agency's Records Retention policy.

Best,
Ali

From: Corbett, Krysti
Sent: Wednesday, October 10, 2018 8:39 AM
To: Patterson, Nicole <Patterson.Nicole@epa.gov>; Coomber, Robert <coomber.robert@epa.gov>; Meighan, Alexandra <Meighan.Alexandra@epa.gov>
Subject: FW: OCHP phone log.docx

This is Barb's phone log with Catherine Allen.

Krysti Corbett
Director
Labor and Employee Relations Division
Desk Phone: (202) 564-6295
Mobile: Ex. 6
corbett.krysti@epa.gov

From: Viney, Barbara
Sent: Tuesday, October 9, 2018 5:51 PM
To: Corbett, Krysti <Corbett.Krysti@epa.gov>
Cc: Cunningham, Bisa <cunningham.bisa@epa.gov>
Subject: OCHP phone log.docx

Good evening.

As I indicated in our conversation on 10/4/2018, I do keep a phone log for my own purpose.
I feel the notes from my phone conversations with Catherine Allen, the vendor working with OCHP, may have some value to the investigation you have indicated is underway in OCHP. These notes are not confidential notes, they were notes the vendor discussed with me about the status of her group dynamics and organizational intervention with OCHP. Please advise if they need to be translated from my short hand to something understandable.

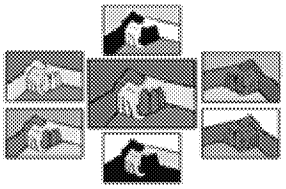
In capturing them, I captured them from most recent at the top to oldest at the bottom.

Regards, Barb.

Barbara Viney
US Environmental Protection Agency
202-564-7972
Conflict Management Specialist http://intranet.epa.gov/ohr/benefits/workplacesolutions/
Employee Counseling and Assistance http://intranet.epa.gov/ohr/benefits/eap/index.htm
Violence Prevention Coordinator

Watch this 3 minute video to learn more about mediation and facilitation at EPA.
http://workplace.epa.gov/facilitation-mediation/

William Jefferson Clinton North
Mail Code 3602A - Suite 1402 S
1200 Pennsylvania Ave., NW
Washington, DC 20460



Message

From: Coomber, Robert [coomber.robert@epa.gov]
Sent: 10/9/2018 5:16:41 PM
To: Meighan, Alexandra [Meighan.Alexandra@epa.gov]; Wulffen, Rebecca [Wulffen.Rebecca@epa.gov]
CC: Corbett, Krysti [Corbett.Krysti@epa.gov]
Subject: FW: Letter re Investigative Leave
Attachments: NOI - RE (OCHP.10.9.2018).pdf; NOAL - RE (OCHP 10.9.18).pdf

FYI

Robert D. Coomber
Senior Labor Attorney
Labor and Employee Relations Division
Desk Phone: (202) 564-0955
Cell Phone: Ex. 6
coomber.robert@epa.gov

From: Wooden-Aguilar, Helena
Sent: Tuesday, October 9, 2018 12:15 PM
To: Coomber, Robert <coomber.robert@epa.gov>
Cc: Patterson, Nicole <Patterson.Nicole@epa.gov>
Subject: RE: Letter re Investigative Leave

The letter has been signed and is going out overnight via return receipt. Attached are the documents for your records.

Helena

From: Coomber, Robert
Sent: Tuesday, October 09, 2018 10:43 AM
To: Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>
Cc: Patterson, Nicole <Patterson.Nicole@epa.gov>
Subject: Letter re Investigative Leave

Helena,

Attached is a draft letter for investigative leave. Ideally we will overnight this, and send it via return receipt. Let me know if you want me to help on the logistics.

Best,

Bob

Robert D. Coomber
Senior Labor Attorney
Labor and Employee Relations Division
Desk Phone: (202) 564-0955
Cell Phone: Ex. 6
coomber.robert@epa.gov

Message

From: Viney, Barbara [Viney.Barbara@epa.gov]
Sent: 10/9/2018 4:18:46 PM
To: Catherine Allen (catherine.allen@ao-group.com) [catherine.allen@ao-group.com]
CC: Corbett, Krysti [Corbett.Krysti@epa.gov]
Subject: FW: Request for Ruth Etzel 360

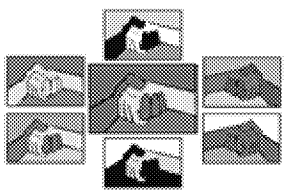
Catherine, EPA's Labor and Employee Relations Director has requested Ruth Etzel's 360. Please provide directly to Corbett.Krysti@epa.gov.

Regards, Barb.

Barbara Viney
US Environmental Protection Agency
202-564-7972
Conflict Management Specialist **http://intranet.epa.gov/ohr/benefits/workplacesolutions/**
Employee Counseling and Assistance **http://intranet.epa.gov/ohr/benefits/eap/index.htm**
Violence Prevention Coordinator

Watch this 3 minute video to learn more about mediation and facilitation at EPA.
http://workplace.epa.gov/facilitation-mediation/

William Jefferson Clinton North
Mail Code 3602A - Suite 1402 S
1200 Pennsylvania Ave., NW
Washington, DC 20460



From: Corbett, Krysti
Sent: Tuesday, October 09, 2018 10:51 AM
To: Viney, Barbara <Viney.Barbara@epa.gov>
Subject: Request for Ruth Etzel 360

Barb,

Per our conversation, please provide the 360 and all supporting information related to Ruth Etzel. The investigation is already underway, so we need this information as soon as possible. Thank you.

Krysti Corbett
Director
Labor and Employee Relations Division
Office of Human Resources
U.S. Environmental Protection Agency

1200 Pennsylvania Avenue, N.W.
WJC North 6313A
Washington DC 20460
Mail Code 3602A
Desk Phone: (202) 564-6295
Mobile: Ex. 6
corbett.krysti@epa.gov

Message

From: Vizian, Donna [Vizian.Donna@epa.gov]
Sent: 9/27/2018 1:15:41 PM
To: Corbett, Krysti [Corbett.Krysti@epa.gov]
Subject: Fwd: Dr. Ruth Etzel, OCHP Director

Begin forwarded message:

> **From:** "Grantham, Nancy" <Grantham.Nancy@epa.gov>
> **Date:** September 25, 2018 at 9:11:09 PM EDT
> **To:** "Vizian, Donna" <Vizian.Donna@epa.gov>
> **Subject: Re: Dr. Ruth Etzel, OCHP Director**
>
> No - state of Washington/ chpac member
>
> Sent from my iPhone
>
> On Sep 25, 2018, at 9:07 PM, Vizian, Donna <Vizian.Donna@epa.gov> wrote:
>
> > Is this person a Fed?
> >
> > On Sep 25, 2018, at 8:32 PM, Grantham, Nancy <Grantham.Nancy@epa.gov> wrote:
> >
> > > Sent from my iPhone
> > >
> > > Begin forwarded message:
> > >
> > > **From:** "Wooden-Aguilar, Helena" <Wooden-Aguilar.Helena@epa.gov>
> > > **Date:** September 25, 2018 at 8:22:36 PM EDT
> > > **To:** "Grantham, Nancy" <Grantham.Nancy@epa.gov>, "Konkus, John" <konkus.john@epa.gov>
> > > **Subject: Fwd: Dr. Ruth Etzel, OCHP Director**
> > >
> > > Fyi.
> > >
> > > Helena Wooden-Aguilar
> > > Acting Deputy Chief of Staff
> > > U.S. Environmental Protection Agency
> > > 202-564-0792 (Work)
> > > Ex. 6 Cell)
> > > wooden-aguilar.helena@epa.gov
> > >
> > > Begin forwarded message:

From: "Hackel, Angela" <Hackel.Angela@epa.gov>
Date: September 25, 2018 at 8:17:00 PM EDT
To: "Wooden-Aguilar, Helena" <Wooden-Aguilar.Helena@epa.gov>
Subject: Fwd: Dr. Ruth Etzel, OCHP Director

Please call me if you can. Ex. 6
Sent from my iPhone

Begin forwarded message:

> **From:** "Morrissey, Barbara (DOH)" <Barbara.Morrissey@DOH.WA.GOV>
> **Date:** September 25, 2018 at 7:52:38 PM EDT
> **To:** Caroline Cox <caroline@ceh.org>, Deanna Scher <deanna.scher@state.mn.us>, Ellen Braff-Guajardo <ebraff-guajardo@sierrahealth.org>, "Forman, Joel" <joel.forman@mssm.edu>, "Huerta-Montanez, Gredia" <grediamd@gmail.com>, "James R. Roberts" <robertsj@musc.edu>, Jose Cordero <jcordero@uga.edu>, Julie Froelicher <Froelicher.jm@pg.com>, Lori Byron <lori.byron@gmail.com>, "Lowry, Jennifer" <jlowry@cmh.edu>, Maeve Howett <mhowett@umass.edu>, "Mark Miller" <ucsfpehsumiller@gmail.com>, Maureen Little <mlittle@health.nyc.gov>, "Morrissey, Barbara (DOH)" <Barbara.Morrissey@DOH.WA.GOV>, Olga

Naidenko <olga@ewg.org>, "Ornella, Greg" <gregory.a.ornella@sherwin.com>, "Pinar Kodaman" <pinar.kodaman@yale.edu>, Rebecca Bratspies <bratspies@mail.law.cuny.edu>, Rubin Patterson <rubin.patterson@howard.edu>, Steve Owens <stephenaowens@gmail.com>, Tom Neltner <tneltner@edf.org>
Cc: "Hackel, Angela" <Hackel.Angela@epa.gov>, "Berger, Martha (Berger.Martha@epa.gov)" <Berger.Martha@epa.gov>, "Foos, Brenda (Foos.Brenda@epa.gov)" <Foos.Brenda@epa.gov>
Subject: Dr. Ruth Etzel, OCHP Director

Dear CHPAC,

I just learned that Dr. Ruth Etzel, OCHP director, was removed from her official duties at EPA this afternoon and had to turn in her badge, keys, and cell phone. She was told it was not a disciplinary action and was placed on administrative leave. I have not spoken to Ruth directly or staff in the OCHP office nor do I know whether there are other actions underway to reduce or eliminate the Office of Children's Health Protection at EPA.

Ruth has been a strong national leader and voice for children's environmental health for her entire career. The book she edits for AAP on Pediatric Environmental Health has been the "go-to" guide on children's environmental health for physicians, public health, and policy-makers for the past 2 decades. As the OCHP director, she has been tapping her great expertise and passion to ensure that children are protected in the agency's environmental regulations and properly included in the agency's research and outreach programs. She has been a critical leader in development of the national lead strategy. The OCHP office also helps develop and track indicators of children's environmental exposures and is critical in supporting the NIEHS/EPA Children's Environmental Health and Disease Prevention Research Centers and the PEHSUs.

If you receive calls from the media specifically for a CHPAC perspective, please forward them to me. I hope to be able to speak out strongly in defense of Ruth and the OCHP office as the CHPAC chair. I hope you all have opportunities

to express your strong support for this small but mighty office at EPA. They have accomplished much in the last 20 years but have important work ahead. If you have talking points you would like me to consider when representing the CHPAC, please forward them to me.

I foresee that this development may affect the planned CHPAC meeting in October. Please be patient while we wait for the office to digest the news and make decisions.

Barbara Morrissey,
Toxicologist
Office of Environmental Public Health Sciences
Washington State Department of Health
barbara.morrissey@doh.wa.gov
360-236-3368 | www.doh.wa.gov

<image002.png><image004.png><image006.png><image008.png><image010.png>

After work I can be reached at Ex. 6
Ex. 6

Message

From: Corbett, Krysti [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=ADF4A657BF5B4F5DBD0421168589EE4F-HOLBERT, KRYSTI]
Sent: 10/5/2018 4:49:30 PM
To: Patterson, Nicole [Patterson.Nicole@epa.gov]
Subject: FW:
Attachments: EPA - To Wheeler - Udall et. al - re Office of Childrens Health Protection - (10.4.18).pdf; ATT00001.htm

Krysti Corbett
Director
Labor and Employee Relations Division
Desk Phone: (202) 564-6295
Mobile: Ex. 6
corbett.krysti@epa.gov

From: Vizian, Donna
Sent: Friday, October 5, 2018 12:48 PM
To: Corbett, Krysti <Corbett.Krysti@epa.gov>
Subject: Fwd:

Deliberative Process / Ex. 5

Begin forwarded message:

> **From:** "Jackson, Ryan" <jackson.ryan@epa.gov>
> **Date:** October 5, 2018 at 8:32:20 AM PDT
> **To:** "Wooden-Aguilar, Helena" <Wooden-Aguilar.Helena@epa.gov>, "Leopold, Matt (OGC)" <Leopold.Matt@epa.gov>, "Darwin, Veronica" <darwin.veronica@epa.gov>, "Lyons, Troy" <lyons.troy@epa.gov>, "Vizian, Donna" <Vizian.Donna@epa.gov>
>
> All – we received the attached letter which I would like to respond too soon rather than later which I think will be an easy response.
>
> The response can be signed by Troy like normal, but Helena will you take on drafting the first draft of the response?

Deliberative Process / Ex. 5

Finally, I just wanted to ask for your quick review to ensure that we are comfortable with the proposed answers.

Thanks.

Ryan Jackson
Chief of Staff
U.S. Environmental Protection Agency
Ex. 6

United States Senate

WASHINGTON, DC 20510

October 4, 2018

The Honorable Andrew Wheeler
Acting Administrator
U.S. Environmental Protection Agency (EPA)
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Acting Administrator Wheeler:

As strong supporters of prioritizing children's health, we are concerned by recent reports about the Environmental Protection Agency's plans for the Office of Children's Health Protection, which is critical to protecting the health of America's infants, children, and young adults from environmental risks. We write to express our strong support of the EPA's Office of Children's Health Protection, and remain concerned regarding the protection of children's health by the EPA. Many stakeholders are concerned about the future of this office and EPA's mission regarding children's health, after EPA's recent decision that the Director of EPA's Office of Children's Health Protection has been put on administrative leave. We also are alarmed about the negative impacts that this abrupt move could have on protecting the health of America's children and request additional information about the future of EPA's Office of Children's Health Protection (OCHP).

We recognize the important role that EPA's Office of Children's Health Protection plays as one of the only offices that addresses the impact of EPA regulations and policies on the health of America's infants, children, and young adults. Infants and children are uniquely vulnerable to environmental contaminants and face disproportionate exposure to environmental factors that negatively affect health. The OCHP, an office established over 20 years ago, is an incredibly important office dedicated to protecting America's children from environmental health risks. We are concerned about the future of this office and ensuring that all EPA actions and programs continue to address the unique vulnerabilities of children.

As a reminder, the Explanatory Statement for the Consolidated Appropriations Act, 2018 (P.L. 115-141) continues longstanding General Guidelines for Reprogramming that require agencies funded by the Department of the Interior, Environment and Related Agencies subcommittee to submit reorganization proposals for Committee review prior to implementation, including reorganizations of significant national importance and organizations that include any closures, transfers of functions, and consolidations. We expect that any proposed changes to the OCHP would not be initiated or implemented without the required approval from the Appropriations Committee.

ED_002399_00016914-00001

In order to address these concerns, we seek responses to the following questions about EPA's decisions to continue to prioritize protecting children's health.

1. What are EPA's long-term plans for the Office of Children's Health Protection?
2. Have there been discussions about reorganizing the Office of Children's Health Protection? If so, why?
3. Are there any plans to reorganize the Office of Children's Health Protection? If so, what are those plans?
4. Are there plans to reduce funding or shift resources related to the staff, authorities and work of the Office of Children's Health Protection?
5. How do you address proposed rules and regulations that are in conflict with concerns raised by the Office of Children's Health Protection?
6. What is the plan for permanently filling the role of Director at EPA's Office of Children's Health Protection?

In addition, we request a full and complete explanation of the facts and purposes behind the personnel action taken against Dr. Etzel, the Director of OCHP, in order to assure Congress and the public that the leadership of this office is being handled appropriately, and according to the laws and agency procedures governing career civil service protections.

We urge the EPA to continue the work of the Office of Children's Health Protection to ensure that EPA's regulations and policies adequately protect the public health of America's infants, children, and young adults. In addition, we request that EPA answer these questions for Congress and the public as soon as possible, and no later than October 18, 2018.

Sincerely,

Tom Udall
United States Senator

Jack Reed
United States Senator

Jeffrey A. Merkley
United States Senator

Richard J. Durbin
United States Senator

Patty Murray
United States Senator

ED_002399_00016914-00002

Message

From: Corbett, Krysti [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=ADF4A657BF5B4F5DBD0421168589EE4F-HOLBERT, KRYSTI]
Sent: 10/16/2018 3:54:56 PM
To: Patterson, Nicole [Patterson.Nicole@epa.gov]; Coomber, Robert [coomber.robert@epa.gov]
Subject: Fwd: CBS NEWS INQUIRY - ON DEADLINE

I'm guessing you guys saw this?

Krysti Corbett
Director
Labor and Employee Relations Division
Desk Phone: (202) 564-6295
Mobile Ex. 6
corbett.krysti@epa.gov

Begin forwarded message:

> **From:** "Vizian, Donna" <Vizian.Donna@epa.gov>
> **Date:** October 16, 2018 at 10:08:21 AM EDT
> **To:** "Corbett, Krysti" <Corbett.Krysti@epa.gov>
> **Subject: Fwd: CBS NEWS INQUIRY - ON DEADLINE**

> Begin forwarded message:
>
> > **From:** "Grantham, Nancy" <Grantham.Nancy@epa.gov>
> > **Date:** October 16, 2018 at 8:47:51 AM EDT
> > **To:** "Vizian, Donna" <Vizian.Donna@epa.gov>
> > **Subject: FW: CBS NEWS INQUIRY - ON DEADLINE**
>
> **Nancy Grantham**
> **Office of Public Affairs**
> **US Environmental Protection Agency**
> **202-564-6879 (desk)**
> Ex. 6 **(mobile)**
>
> > **From:** Konkus, John
> > **Sent:** Monday, October 15, 2018 6:17 PM
> > **To:** Busch, Nicole <BuschN@cbsnews.com>
> > **Cc:** Block, Molly <block.molly@epa.gov>; Lynn, Tricia <lynn.tricia@epa.gov>; Press <Press@epa.gov>
> > **Subject:** Re: CBS NEWS INQUIRY - ON DEADLINE
> >
> > Even strongerupdated quote: "Dr. Etzel is currently on investigative leave because of serious reports made against her by staff regarding her ability to effectively lead the Office of Children's Health. The kinds of allegations that have been raised regarding Dr.

Etzel's conduct are very concerning and prompted EPA to take action. Her attempt to use the press to distract from the allegations about her personal conduct is completely inappropriate. Any link that Dr. Etzel is attempting to draw between her personal situation and the mission of the Office of Children's Health is an attempt at misdirection. EPA is 100% committed to protecting children's health and will do everything in its power to ensure that the Office has competent leadership."

John Konkus
Environmental Protection Agency

Deputy Associate Administrator
Office of Public Affairs

John Konkus
Environmental Protection Agency
Deputy Associate Administrator
Office of Public Affairs

On Oct 15, 2018, at 3:21 PM, Konkus, John <konkus.john@epa.gov> wrote:

> Nicole: We would appreciate your updating your article online with the following statement please:
>
> "Dr. Etzel is currently on administrative leave because of serious reports made against her by staff regarding her leadership of the Office of Children's Health. It's unfortunate that she has decided to go to the press in what appears to be an attempt to distract from these allegations. The Agency believes Dr. Etzel's characterizations misrepresent the situation; this is about allegations of a person's actions, not the Office. Everyone involved should allow the Agency to continue looking into the allegations of inappropriate conduct, in the meantime the Office of Children's Health and our work to reduce lead exposure continue to be cornerstones of the EPA's work, just as they have always been." – EPA Spokesperson
>
> Thank you.
>
> ---
>
> **From:** Konkus, John
> **Sent:** Sunday, October 14, 2018 4:16 PM
> **To:** Busch, Nicole <BuschN@cbsnews.com>
> **Cc:** Block, Molly <block.molly@epa.gov>; Lynn, Tricia <lynn.tricia@epa.gov>; Press <Press@epa.gov>
> **Subject:** Re: CBS NEWS INQUIRY - ON DEADLINE
>
> Here is a statement on Dr. Etzel: "Although EPA does not customarily comment on personnel matters, due to circulating misinformation, the Director of EPA's Office of Children's Health Protection was placed on leave to give the Agency the opportunity to review allegations about the Director's leadership of the office." **– EPA Chief of Staff, Ryan Jackson**

here is a statement on the Office of Children's Health: "Children's health is and has always been a top priority for the Trump Administration and the EPA in particular is focused on reducing lead exposure in schools, providing funds for a cleaner school bus fleet, and cleaning up toxic sites so that children have safe environments to learn and play. These are just a few of the dozens of objectives the EPA's Office of Children's Health will continue work on during this administration." — EPA Spokesperson

We would ask you to review and include in reporting these three press releases we have recently sent on the subject:

https://www.epa.gov/newsreleases/childrens-health-month-epa-offers-nearly-30-million-support-cleaner-water-and-air

https://www.epa.gov/newsreleases/acting-administrator-wheeler-reaffirms-commitment-protecting-childrens-health

https://www.epa.gov/newsreleases/childrens-health-month-epas-commitment-promoting-healthy-environments-where-children

Thank you,

John Konkus
Environmental Protection Agency
Deputy Associate Administrator
Office of Public Affairs

On Oct 14, 2018, at 3:34 PM, Busch, Nicole <BuschN@cbsnews.com> wrote:

> Hi Molly and Tricia,
> CBS News correspondent, Anna Werner, and I are working on a piece scheduled to air on CBS This Morning tomorrow morning regarding Dr. Ruth Etzel being placed on administrative leave. We sent a request for comment to EPA's main media email address last Wednesday and spoke with Mr. Darwin on Thursday at the Children's Health Protection Advisory Committee meeting (speaking briefly with you both as well).
> We would like to reiterate if there are additional comments you would like to provide concerning Dr. Etzel's leave and or to criticism from both Dr. Etzel and other children's health advocates that the EPA is not doing enough to regulate risks posed to children's health or making it a priority-- please do so by tonight.
>
> Please respond by 9pm EST this evening.
> Thank you,

Nicole

Ex. 6

Message

From: Corbett, Krysti [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=ADF4A657BF5B4F5DBD0421168589EE4F-HOLBERT, KRYSTI]
Sent: 10/11/2018 4:40:34 PM
To: Carpenter, Wesley [Carpenter.Wesley@epa.gov]; Coomber, Robert [coomber.robert@epa.gov]
Subject: RE: Note Taker Support for Ruth Etzel Investigation

Thanks, Wes.

Bob – see below.

Krysti Corbett
Director
Labor and Employee Relations Division
Desk Phone: (202) 564-6295
Mobile: Ex. 6
corbett.krysti@epa.gov

From: Carpenter, Wesley
Sent: Thursday, October 11, 2018 12:35 PM
To: Corbett, Krysti <Corbett.Krysti@epa.gov>
Subject: RE: Note Taker Support for Ruth Etzel Investigation

Please proceed.

From: Corbett, Krysti
Sent: Thursday, October 11, 2018 12:31 PM
To: Carpenter, Wesley <Carpenter.Wesley@epa.gov>
Subject: Note Taker Support for Ruth Etzel Investigation

Wes,

We need a note-taker for the investigation that we discussed yesterday. We would like to use the SiloSmashers contract and ask the AO to pay for the services. Do you have any issues with this approach?

If this approach is ok, we'll engage Eugene Greene (the COR).

Krysti Corbett
Director
Labor and Employee Relations Division
Office of Human Resources
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
WJC North 6313A
Washington DC 20460
Mail Code 3602A
Desk Phone: (202) 564-6295
Mobile: Ex. 6
corbett.krysti@epa.gov

Message

From: Grantham, Nancy [Grantham.Nancy@epa.gov]
Sent: 10/11/2018 1:41:02 PM
To: Darwin, Henry [darwin.henry@epa.gov]
Subject: Re: Morning Energy: Apprehension meets EPA reorg — U.N. Ambassador Zinke? — E15 faces legal hurdles

Will do

Sent from my iPhone

On Oct 11, 2018, at 9:36 AM, Darwin, Henry <darwin.henry@epa.gov> wrote:

> Can you please have someone send me the complete story regarding the realignment?
>
> Thanks
>
> H
>
> **From:** POLITICO Pro Energy [mailto:politicoemail@politicopro.com]
> **Sent:** Thursday, October 11, 2018 5:48 AM
> **To:** Darwin, Henry <darwin.henry@epa.gov>
> **Subject:** Morning Energy: Apprehension meets EPA reorg — U.N. Ambassador Zinke? — E15 faces legal hurdles

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MORNINGENERGY

10/11/2018 05:46 AM EDT

By KELSEY TAMBORRINO (ktamborrino@politico.com; @kelseytam)

With help from Anthony Adragna, Eric Wolff, Darius Dixon and Annie Snider

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IT'S THURSDAY MORNING! I'm your host, Kelsey Tamborrino. Cheniere's Khary Cauthen was th first to correctly ID Warren Harding as the only president to appoint a former president to the Supreme Court — he chose William Taft. For today: Another presidential trivia question: Who is the only president with an MBA? Send your tips, energy gossip and comments to ktamborrino@politico.com , or follow us on Twitter @kelseytam, @Morning_Energy and @POLITICOPro.

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POLITICO IS PARTNERING WITH THE MILKEN INSTITUTE to bring a special edition of the POLITICO Pulse newsletter to the Milken Institute Future of Health Summit. Written by Dan Diamond, the newsletter will take readers inside one of the most influential gatherings of global

health industry leaders and innovators as they tackle today's most pressing health challenges. The newsletter will run Oct. 23-24. Sign up today to begin receiving exclusive coverage on Day One of the summit.

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McNAMEE ENDGAME: Republican senators on the Energy and Natural Resources Committee are hoping to swiftly confirm FERC nominee Bernard McNamee before year's end, in an effort to return the commission to full strength, Pro's Anthony Adragna reports. Democrats, meanwhile, warn of a coming battle over the selection, as they remain worried that adding McNamee to FERC will politicize the commission.

NEWS TO ME: Trump suggested aboard Air Force One on Tuesday he'd received "expedited approval" for a Texas pipeline project, but Cornyn told ME he wasn't sure which one the president was referring to even as he suggested more pipeline capacity is needed. "I do know they're flaring off and burning natural gas in the Permian Basin because they don't have the pipeline capacity to send it to market," he said. "I'm not familiar to what he was referring to, but there is a shortage of capacity to be sure."

INSIDE THE AGENCIES

WHEELER HEADS TO CALI: Acting EPA Administrator Andrew Wheeler is in California's Central Valley today, where he'll appear at a press event with Republican Rep. Jeff Denham, who is facing one of the tightest re-election fights in the country. Denham has asked Wheeler to use EPA's authority to overturn a proposal by California's State Water Resources Board that would require more water to be reserved in key rivers for the benefit of endangered fish species and the detriment of farmers who dominate Denham's district.

WHAT'S YOUR PLAN, STAN? Michigan Democrats who were on the frontlines of the Flint lead contamination crisis are pressing EPA to account for the recent dismissal of the head of the agency's Office of Children's Health Protection. In a letter being sent to Wheeler this morning, Sens. Gary Peters and Debbie Stabenow, and Rep. Dan Kildee ask EPA to explain Ruth Etzel's abrupt removal as head of the office and how the office will operate now. "Going forward, we need to ensure we have a strong national infrastructure to prevent a scenario like the Flint water crisis from ever happening again, and the Office of Children's Health Protection is key to this strategy," the lawmakers write. An EPA spokesman has said Etzel was placed on administrative leave while the agency investigates allegations about her leadership of the office.

WHEELER ADDS 5 TO ADVISORY PANEL: Wheeler appointed five new members to the Clean Air Scientific Advisory Committee, which advises the administrator on NAAQS issues: Mark Frampton, of the University of Rochester Medical Center; Sabine Lange, from the Texas Commission on Environmental Quality; Timothy Lewis, of the U.S. Army Corps of Engineers; Corey Masuca, of the Jefferson County Department of Health in Alabama; and Utah Department c Environmental Quality's Steven Packham.

QUICK HITS

— "How Bloomberg embeds green warriors in blue-state governments," RealClear Investigations.

— "Regs chief likely on short list for D.C. Circuit bench," E&E News.

— "More than 1,500 Interior employees removed or reprimanded for harassment, misconduct," The Hill.

— "James Murdoch in line to replace Elon Musk as Tesla chair," Financial Times.

— "Trump administration seeks to deploy earthquake sensors faster," The Wall Street Journal.

— "Toxic red tide could sicken people as Hurricane Michael pushes It ashore," Bloomberg.

HAPPENING TODAY

8:15 a.m. — Rice University's Baker Institute for Public Policy hosts Global Energy Transitions Summit, Houston.

8:30 a.m. — The Center for Strategic and International Studies discussion on International Energy Agency report, "The Future of Petrochemicals: Toward a More Sustainable Supply of Plastics and Fertilizers," 1616 Rhode Island Avenue NW.

8:30 a.m. — National Academy of Sciences Polar Research Board briefing on "Understanding Northern Latitude Vegetation Greening and Browning," 500 Fifth Street NW.

10 a.m. — Senate Energy and Natural Resources Committee hearing to examine blackstart, 366 Dirksen.

4:30 p.m. — The National Academy of Sciences' LabX hosts " Two Scientists Walk Into a Bar," 3930 Georgia Avenue NW.

THAT'S ALL FOR ME!

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POLITICOPRO

This email was sent to darwin.henry@epa.gov by: POLITICO, LLC 1000 Wilson Blvd. Arlington, VA, 22209, USA

Message

From: Grantham, Nancy [Grantham.Nancy@epa.gov]
Sent: 10/11/2018 2:09:12 PM
To: Darwin, Henry [darwin.henry@epa.gov]
Subject: RE: Morning Energy: Apprehension meets EPA reorg — U.N. Ambassador Zinke? — E15 faces legal hurdles

Here it is – thanks ng

Plans for bureaucratic reshuffle raise fears at EPA

https://subscriber.politicopro.com/energy/article/2018/10/plans-for-bureaucratic-reshuffle-raise-fears-at-epa-841189

By ANNIE SNIDER and ALEX GUILLÉN 10/11/2018 05:00 AM EDT

The Trump administration is advancing a major overhaul of EPA aimed at streamlining the sprawling agency and resetting its priorities — a prospect that strikes fear in green groups and career employees.

Against a backdrop of aggressive regulatory rollbacks, staff reshuffles and budget cuts since President Donald Trump came into office, the administration's plan to reorganize the agency's approach to management is being met with skepticism at EPA headquarters in Washington and regional outposts around the country.

"I dub this 'rollback by reorg,'" John Walke with the Natural Resources Defense Council said of the administration's plans. "I see their reorganization and indifference to staff levels being part and parcel of an agenda to roll back safeguards and leave EPA even more crippled for the next administration than it was when the Trump administration came into office."

Privately, many state regulators and even some EPA staffers say some bureaucratic overhaul is long overdue. But they worry about the motives of a president who says he wants to boost the fortunes of coal and oil companies while dismissing major environmental crises like climate change.

"Reorganizations in and of themselves are not bad," said Joe Edgell, president of NTEU Chapter 280, which represents EPA's unionized headquarters staff. "But it's important that the reorganization be geared toward improving our protection of human health and the environment, and at this point, we're not sure that all the changes we've heard about are designed with that goal in mind."

Overseeing the push within EPA is Chief of Operations Henry Darwin, a devotee of the "LEAN Process Improvement" management system, which was developed in the 1980s to improve assembly line performance at Toyota and has become a favorite of the management consultant set. Darwin joined the Trump administration last year from Arizona, where he revamped the operations of the Department of Environmental Quality and later the broader state government.

In his first year on the job, Darwin has been working with each division at EPA to set metrics for measuring their effectiveness and then requiring them to track their progress and report to him monthly. From his office in Washington, dominated by brightly colored organizational charts and "bowling sheets" tracking the agency's progress towards specific goals, Darwin is working to reassure employees that his goal is to help the agency function better with limited resources.

EPA now employs around 15,000 people, down from a peak of more than 18,000 at the end of the Clinton administration, and Trump has called for that number to fall by a third to levels not seen since the early days of the agency during the Ford administration, although Congress has so far staved off cuts that steep.

"There is no denying the fact that EPA is not going to be getting bigger anytime soon," Darwin told POLITICO in a recent interview. He describes his mission as "doing whatever I can to make sure that the mission of this organization is still fulfilled given those facts."

Ultimately, Congress will have to sign off on the reorganization; last week Darwin told staff that the plan would soon be presented to the Hill.

The biggest changes announced so far are for the 10 regional offices where EPA conducts on-the-ground work overseeing states' implementation of federal programs, inspecting industrial sites and conducting research and coordination crucial to many communities. Darwin wants each of those offices to structure themselves similar to EPA headquarters — an air office focused on pollution from smokestacks and tailpipes, a waste office to oversee Superfund cleanups and so on. Darwin says that would give headquarters a better "line of sight" into what is happening in the regions, each of which now has a different organizational structure.

"States basically think this is a sensible idea, but the process will matter a lot to them," said Sam Sankar, executive director of the Environmental Council of the States.

"If EPA needs to reassign managers as part of this, it needs to be scrupulously objective about its choices," Sankar added. "Otherwise people might view this as a political exercise, and that would be bad for everyone."

How EPA enforces environmental laws will be one of the most closely-watched areas as the agency moves forward with the reorganization.

In the president's first year in office, enforcement actions dropped precipitously from levels under the previous three administrations, according to a report from the Environmental Integrity Project that analyzed EPA data. It found that EPA and the Justice Department lodged 48 lawsuits in Trump's first year, collecting $30 million in penalties — down from 71 cases in President Barack Obama's first year that yielded $71 million in penalties, or $81 million once adjusted for inflation.

Darwin disputes the idea that enforcement is best measured by counting the total number of cases EPA brings or the amount of money it collects. Instead, he is tracking the length of time from when a violation is identified to when compliance is achieved, which he wants the agency to decrease, and the number of facilities that are found to comply when they are inspected in the first place, which Darwin is pushing to increase.

"It's just like when you're building a house: I don't judge the quality of my house by how many hammers I use to construct my house, I judge it by the stability of the house," he said. "This is how we judge the structural integrity of our enforcement program, not by the number of hammers that we use to get there."

But critics say that approach doesn't make sense unless the ultimate goal is to make life easier for the companies EPA is supposed to be watching.

"If corporations think the worst that can happen when they're caught is that they'll be hustled back into compliance, what's the incentive to stay in compliance in the first place?" asked Eric Schaeffer, executive director of the Environmental Integrity Project and a former civil enforcement chief at EPA. Schaeffer compared the approach to a police officer handing out warnings instead of speeding tickets.

Darwin's metrics "don't reflect the real world," said Cynthia Giles, who served as EPA's enforcement chief under the Obama administration. In reality, she said, most compliance is self-reported by industry and EPA can only send inspectors to fewer than 1 percent of facilities. So, she argued, those inspections should be targeted to the facilities most likely to be in violation so that regulators can rein in pollution problems. But if Darwin wants to see an increase in initial compliance, regulators will have the opposite incentive.

In EPA's regional offices, where many enforcement experts are housed within their respective program offices to focus on air, water or other specific compliance issues, Darwin is proposing to consolidate them into a single enforcement office, as they are at headquarters.

Mike Mikulka, president of the union representing more than 800 Region 5 employees in Chicago, warned that bunching those attorneys, scientists and other enforcement experts together in a single office could make a tempting target for the agency's critics.

"I just think that once that reorganization takes place, then they'll look at that and say, 'Oh my god, we've got too many people working on this,'" Mikulka said. "And then they'll say, 'Well, we can cut people that way.' I just think it could be the first step in cutting enforcement resources at EPA."

Giles said that the bureaucratic reorganization in and of itself doesn't pose a problem to enforcement. What really matters, she argued, is the direction from agency leaders about how aggressively to pursue environmental violations.

"The important question is whether EPA is insisting on companies complying with the standards to protect health or not," Giles said. "And on that score, I think that this administration couldn't be more clear: Regions are supposed to step back on enforcement. They can't investigate cases, they can't send cases to DOJ without headquarters' say so."

Nancy Grantham
Office of Public Affairs
US Environmental Protection Agency
202-564-6879 (desk)
202-253-7056 (mobile)

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DOJ NOMINEE MOVES CLOSER: The Senate will vote at 12:10 p.m. on the nomination of Jeffrey Clark to be assistant attorney general in charge of the Justice Department's Environment and Natural Resources Division, following a 53-44 cloture vote on Wednesday. Trump first nominated Clark, who is backed by industry groups, in June 2017.

McNAMEE ENDGAME: Republican senators on the Energy and Natural Resources Committee are hoping to swiftly confirm FERC nominee Bernard McNamee before year's end, in an effort to

return the commission to full strength, Pro's Anthony Adragna reports. Democrats, meanwhile, warn of a coming battle over the selection, as they remain worried that adding McNamee to FERC will politicize the commission.

NEWS TO ME: Trump suggested aboard Air Force One on Tuesday he'd received "expedited approval" for a Texas pipeline project, but Cornyn told ME he wasn't sure which one the president was referring to even as he suggested more pipeline capacity is needed. "I do know they're flaring off and burning natural gas in the Permian Basin because they don't have the pipeline capacity to send it to market," he said. "I'm not familiar to what he was referring to, but there is a shortage of capacity to be sure."

INSIDE THE AGENCIES

WHEELER HEADS TO CALI: Acting EPA Administrator Andrew Wheeler is in California's Central Valley today, where he'll appear at a press event with Republican Rep. Jeff Denham, who is facing one of the tightest re-election fights in the country. Denham has asked Wheeler to use EPA's authority to overturn a proposal by California's State Water Resources Board that would require more water to be reserved in key rivers for the benefit of endangered fish species and the detriment of farmers who dominate Denham's district.

WHAT'S YOUR PLAN, STAN? Michigan Democrats who were on the frontlines of the Flint lead contamination crisis are pressing EPA to account for the recent dismissal of the head of the agency's Office of Children's Health Protection. In a letter being sent to Wheeler this morning, Sens. Gary Peters and Debbie Stabenow, and Rep. Dan Kildee ask EPA to explain Ruth Etzel's abrupt removal as head of the office and how the office will operate now. "Going forward, we need to ensure we have a strong national infrastructure to prevent a scenario like the Flint water crisis from ever happening again, and the Office of Children's Health Protection is key to this strategy," the lawmakers write. An EPA spokesman has said Etzel was placed on administrative leave while the agency investigates allegations about her leadership of the office.

WHEELER ADDS 5 TO ADVISORY PANEL: Wheeler appointed five new members to the Clean Air Scientific Advisory Committee, which advises the administrator on NAAQS issues: Mark Frampton, of the University of Rochester Medical Center; Sabine Lange, from the Texas Commission on Environmental Quality; Timothy Lewis, of the U.S. Army Corps of Engineers; Corey Masuca, of the Jefferson County Department of Health in Alabama; and Utah Department of Environmental Quality's Steven Packham.

QUICK HITS

— "How Bloomberg embeds green warriors in blue-state governments," RealClear Investigations.

— "Regs chief likely on short list for D.C. Circuit bench," E&E News.

— "More than 1,500 Interior employees removed or reprimanded for harassment, misconduct," The Hill.

— "James Murdoch in line to replace Elon Musk as Tesla chair," Financial Times.

— "Trump administration seeks to deploy earthquake sensors faster," The Wall Street Journal.

— "Toxic red tide could sicken people as Hurricane Michael pushes It ashore," Bloomberg.

HAPPENING TODAY

8:15 a.m. — Rice University's Baker Institute for Public Policy hosts Global Energy Transitions Summit, Houston.

8:30 a.m. — The Center for Strategic and International Studies discussion on International Energy Agency report, "The Future of Petrochemicals: Toward a More Sustainable Supply of Plastics and Fertilizers," 1616 Rhode Island Avenue NW.

8:30 a.m. — National Academy of Sciences Polar Research Board briefing on "Understanding Northern Latitude Vegetation Greening and Browning," 500 Fifth Street NW.

10 a.m. — Senate Energy and Natural Resources Committee hearing to examine blackstart, 366 Dirksen.

4:30 p.m. — The National Academy of Sciences' LabX hosts " Two Scientists Walk Into a Bar," 3930 Georgia Avenue NW.

THAT'S ALL FOR ME!

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Message

From: Carolina Espina Garcia [EspinaC@iarc.fr]
Sent: 9/7/2018 8:12:40 AM
To: Meltzer, Helle Margrete [HelleMargrete.Meltzer@fhi.no]; retzel@earthlink.net; Birgit.Wolz@bmub.bund.de; marie-aline.charles@inserm.fr; 'Marike' [marike.kolossa@uba.de]; kamijima@med.nagoya-cu.ac.jp; Magnus, Per Minor [PerMinor.Magnus@fhi.no]; Etzel, Ruth [Etzel.Ruth@epa.gov]; fabre@nies.go.jp; SFO@ssi.dk; junjimzhang@sina.com; Joachim Schuz [SchuzJ@iarc.fr]; Conrad, Andre [andre.conrad@uba.de]; Murawski, Aline [Aline.Murawski@uba.de]; Caspersen, Ida Henriette [Ida.Henriette.Caspersen@fhi.no]
Subject: Re: Biomonitoring data hormonisation among large-scale cohort studies and human biomonitoring projects: An exercise on lead
Attachments: ECHIBCG-lead-ver0-JS-sfn-rae_hmm CE.docx

Dear Aline and Andre,

For some reason, your email addresses were dropped from the mailling list again and you may have missed the previous emails. I apologize for that.
Please see my last email below and the corresponding attachment.

Best,
Carolina

From: Carolina Espina Garcia
Sent: 07 September 2018 10:09
To: Meltzer, Helle Margrete; retzel@earthlink.net; Birgit.Wolz@bmub.bund.de; marie-aline.charles@inserm.fr; 'Marike'; kamijima@med.nagoya-cu.ac.jp; Magnus, Per Minor; Etzel.Ruth@epa.gov; fabre@nies.go.jp; SFO@ssi.dk; junjimzhang@sina.com; Joachim Schuz
Cc: Caspersen, Ida Henriette
Subject: Re: Biomonitoring data hormonisation among large-scale cohort studies and human biomonitoring projects: An exercise on lead

Dear all,

I hope you all have had a nice summer break.
Please find attached the draft manuscript with some edits from my side.
Please also note that in the previous circulated version updated Tables 1 and 3 were missing; this current version of the draft is the correct one, **please work on this document**.

Best,
Carolina

From: Meltzer, Helle Margrete <HelleMargrete.Meltzer@fhi.no>
Sent: 04 September 2018 12:20
To: retzel@earthlink.net; Carolina Espina Garcia; Birgit.Wolz@bmub.bund.de; marie-aline.charles@inserm.fr; 'Marike'; kamijima@med.nagoya-cu.ac.jp; Magnus, Per Minor; Etzel.Ruth@epa.gov; fabre@nies.go.jp; SFO@ssi.dk; junjimzhang@sina.com; Joachim Schuz
Cc: Caspersen, Ida Henriette
Subject: SV: Biomonitoring data hormonisation among large-scale cohort studies and human biomonitoring projects: An exercise on lead

Dear all,
Congratulations with the first draft – it reads well! Attached is the manuscript with some minor input from me. Most important is that we include Ida Caspersen as co-author; she is our postdoc who has done all the statistical analyses for this lead exercise!

The reference to MoBa is

- **Magnus P**, Birke C, **Vejrup** K, Haugan A, Alsaker E, Daltveit AK, Handal M, Haugen M, Høiseth G, Knudsen GP, Paltiel L, Schreuder P, Tambs K, Vold L, Stoltenberg C. Cohort Profile Update: The Norwegian Mother and Child Cohort Study (MoBa). Int J Epidemiol. 2016 Apr;45(2):382-8. doi: 10.1093/ije/dyw029. Epub 2016 Apr 10.

Kind regards,

Helle Margrete

Fra: retzel [mailto:retzel@earthlink.net]
Sendt: mandag 3. september 2018 17.14
Til: 'Carolina Espina Garcia' <EspinaC@iarc.fr>; Birgit.Wolz@bmub.bund.de; marie-aline.charles@inserm.fr; Meltzer, Helle Margrete <HelleMargrete.Meltzer@fhi.no>; 'Marike' <marike.kolossa@uba.de>; kamijima@med.nagoya-cu.ac.jp; Magnus, Per Minor <PerMinor.Magnus@fhi.no>; Etzel.Ruth@epa.gov; fabre@nies.go.jp; SFO@ssi.dk; junjimzhang@sina.com; SchuzJ@iarc.fr
Emne: Biomonitoring data hormonisation among large-scale cohort studies and human biomonitoring projects: An exercise on lead

Dear Colleagues,

I have reviewed the draft article "Biomonitoring data hormonisation among large-scale cohort studies and human biomonitoring projects: An exercise on lead". I think it is really great to see the progress!

I had some brief cohort descriptions in my files and I inserted them in the draft manuscript (as placeholders). Because they were written 4 years ago, they will need to be reviewed and revised for accuracy. Please do so.

Also, I started to insert some relevent references in the introduction, including the following:

Barbone F, Rosolen V, Mariuz M, et al. 2018. Prenatal mercury exposure and child neurodevelopment outcomes at 18 months: Results from the Mediterranean PHIME cohort. Int J Hyg Environ Health (in press)

Barouki R, Gluckman PD, Grandjean P, Hanson M, Heindel JJ. 2012. Developmental origins of non-communicable disease: implications for research and public health. *Environ Health*, 11(1):42.

Boucher O, Muckle G, Bastien CH. 2009. Prenatal exposure to polychlorinated biphenyls: a neuropsychologic analysis. *Environ Health Perspect.* 117(1):7–16

Branum AM, Collman GW, Correa A, Keim SA, Kessel W, Kimmel CA, et al. 2003. The National Children's Study of environmental effects on child health and development. Environ Health Perspect. 111(4):642–6.

Brown RC, Dwyer T, Kasten C, Krotoski D, Li Z, Linet MS et al. 2007. Cohort profile: the International Childhood Cancer Cohort Consortium (I4C). Int J. Epidemiol;36:724-730.

Casas M, Nieuwenhuijsen M, Martinez D, Ballester F, Basagana X, Basterrechea M, Chatzi L, Chevrier C, Eggesbo M, Fernandez MF et al. 2015. Prenatal exposure to PCB-153, p,p'-DDE and birth outcomes in 9000 mother-child pairs: exposure-response relationship and effect modifiers. *Environ Int*, 74:23-31.

Clemente DB, Casas M, Vilahur N, Begiristain H, Bustamante M, Carsin AE, Fernández MF, Fierens F, Gyselaers W, Iñiguez C et al. 2016. Prenatal ambient air pollution, placental mitochondrial DNA content, and birth weight in the INMA (Spain) and ENVIRONAGE (Belgium) birth cohorts. *Environ Health Perspect*, 124(5):659-665.

Etzel R, Charles M-A, Dellarco M, Gajeski K, Jöckel-K-H, Hirschfeld S, Kamijima M, Kawamoto T, Kolossa-Gehring M, Nakayama S, Schmidt B, Tian Y, Zaros C, Zhang J. 2014. Harmonizing biomarker measurements in longitudinal studies of children's health and the environment. *Biomonitoring*, 1: 50-62.

Grandjean P, Bellinger D, Bergman Å, et al. 2008. The Faroes statement: human health effects of developmental exposure to chemicals in our environment. *Basic Clin Pharmacol Toxicol* 102(2):73-75

Huang J, Zhu T, Qu Y, Mu D. 2016. Prenatal, perinatal and neonatal risk factors for intellectual disability: a systemic review and meta-analysis. *PLoS One*. 11(4):e0153655

Kawamoto T, Nitta H, Murata K, Toda E, Tsukamoto N, Hasegawa M, et al. 2014. Rationale and study design of the Japan environment and children's study (JECS). BMC Public Health.14:25.

Oleko A, Betsou F, Sarter H, Gerdil C, Desbois I, Charles MA, et al. 2011. A Pilot Study of the ELFE Longitudinal Cohort: Feasibility and Preliminary Evaluation of Biological Collection. Biopreserv Biobank.9(3):223–7.

Perera FP, Rauh V, Whyatt RM, et al. 2006. Effect of prenatal exposure to airborne polycyclic aromatic hydrocarbons on neurodevelopment in the first 3 years of life among inner-city children. *Environ Health Perspect*. 114(8):1287–1292

Pilsner RJ, Hu H, Ettinger A, et al. 2009. Influence of prenatal lead exposure on genomic methylation of cord blood DNA. *Environ Health Perspect*. 117(9):1466–1471

Rauh V, Arunajadai S, Horton M, et al. 2011. Seven-year neurodevelopmental scores and prenatal exposure to chlorpyrifos, a common agricultural pesticide. *Environ Health Perspect*. 119(8):1196–1201

Shelton JF, Geraghty EM, Tancredi DJ, et al. 2014. Neurodevelopmental disorders and prenatal residential proximity to agricultural pesticides: the CHARGE study. *Environ Health Perspect.*122(10):1103–1109

Vandentorren S, Bois C, Pirus C, Sarter H, Salines G, Leridon H. 2009. Rationales, design and recruitment for the Elfe longitudinal study. BMC Pediatr.9:58.

I hope this is helpful and I am certain that you have other references to add to this list.

With best regards,

Ruth

Target journal: International Journal of Hygiene and Environmental Health

Biomonitoring data harmonisation among large-scale cohort studies and human biomonitoring projects: An exercise on lead

Authors (Tentative order and completeness)

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Number of figures and tables: X figure and Y tables

Keywords: Biomonitoring; birth cohort; lead; harmonisation; XXX; YYY

Chemical compounds studied in this article: Lead (PubChem CID: 5352425)

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30 **Highlights**

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Abstract

Background

Methods

Results

Conclusion

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1. Introduction

Foetal and neonatal exposure to chemical substances may lead to adverse health effects in later life [Grandjean et al., 2008~~Ref~~]. In the past decades, numerous studies including long-term prospective cohort studies have indicated linkages between chemical exposures in utero and in early childhood and developmental disorders, immune system dysfunction and hormone disruptions [~~Ref~~Barouki et al., 2012; Boucher et al., 2009; Casas et al., 2015; Clemente et al., 2016; Perera et al., 2006; Pilsner et al., 2009; Rauh et al., 2011; Shelton et al., 2014]. Birth cohort studies are one of the major tools to identify these associations between the environment and children's health and when possible confirm causalities. However, many problems yet exit to be solved: Inconsistent results have been found [Barbone et al., 2018~~Ref~~]; rare cases have been left out [Ref]; and XXX. Meta-analysis of multiple study results is a common way to address some of these issues [Huang et al., 2016]. The other choice is to conduct a single large-scale epidemiological study involving a hundred thousand or more participants. The Danish National Birth Cohort (DNBC) [Ref] and Norwegian Mother and Child Cohort Study (MoBa) [~~Ref~~Magnus et al., 2016] are the two front runners observing approximately 100,000 mothers and children. The United States started the National Children's Study (NCS) in 2009 [Branum et al., 2003~~Ref~~]. The NCS ~~was~~ planned to follow 100,000 children from before birth to age 21, ~~which~~ but the study was ultimately cancelled in December 2014. The NCS had been in a pilot (Vanguard) phase when terminated. Japan followed the movement by launching its version of a national birth cohort study called the Japan Environment and Children's Study (JECS) [Kawamoto et al., 2014~~Ref~~]. The recruitment for JECS started in January 2011 and concluded in March 2014 achieving a little over 103,000 participations. The United Kingdom Life study intended to recruit over 80,000 participants, but soon after its launch it was discontinued [Ref] in 2015. Elfe. Ko-CHENS. Generation X?

While these studies are considered to be 'big' enough to investigate the relationship between the environment and children's health and development, when it comes to rare diseases such as childhood cancers, type-1 diabetes, YYY and sudden infant death syndrome (SIDS), none of them have sufficient statistical power. When we try to look at the effect of multiple environment at the same time, e.g. the effect of lead, mercury, cadmium, persistent organic pollutants (POPs), pesticides

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and some other compounds of emerging concerns such like perfluorinated alkyl substances, phthalates and parabens, the number of 100,000 falls far short. This has driven these cohort studies to form some consortia in order to gather each study data and perform pooled analyses on initially rare cases. The examples are I4C [Brown et al. 2007~~Ref~~], Enrieco [Ref] and Bicca? [Ref].

To acquire the information about children's health and environmental exposures, the birth cohort studies employ a variety of instruments, including for heath and development, questionnaires (either in electronic or paper formats), in-person or phone interviews, physical examinations, and for environmental exposures, questionnaires, interviews, environmental monitoring, modelling and biomonitoring. For health measures, studies are encouraged to use standardised diagnosis, procedures and questionnaires. For exposure assessment, it is hard to standardise procedures among the studies. For instance, each study may very well employ different analytical methods for biomonitoring, which results in varying method performance characteristics including precision, accuracy and detection limits. Even if they use exactly the same methods, each laboratory performs in different qualities. ~~ECHIBCG [Ref]~~Fitzel et al., 2014].

Our group, the Environment and Child Health International Birth Cohort Group (ECHIBCG) described below [Fitzel et al., 2014], performed an exercise in harmonising lead exposure measurements by, first documenting each study's method procedures, ~~and~~ second by performing round-robin practices, and third, by identifying and analysing potential relevant factors influencing maternal lead levels across countries.

2. Materials and methods

2.1. Participating studies and organisations

In late 2011, the Japan Ministry of the Environment (JMOE) invited investigators associated with some large-scale 21st century birth cohort studies to discuss about how better design the assessment of disease outcomes, biomarkers and environmental exposures. Investigators from various large-scale cohort studies discussed about the benefit of data pooling among the studies and need of study harmonisation. The JMOE suggested that it would be useful to establish working groups to define a list of core elements for inclusion in the harmonisation. Such core elements could include disease

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outcome definitions, biomarkers and exposure measurements. A working group was therefore proposed to discuss and exchange information about ongoing and forthcoming large-scale birth cohort studies and national bio-/environmental monitoring projects. Experts from new large-scale studies of environmental influences on children's health and development that are currently being planned or conducted in France, Shanghai (China), the United States and Germany constituted the Environment and Child Health International Birth Cohort Group (ECHIBCG) in 2011 (Etzel et al., 2014).

Confidentiality.

The current ECHIBCG consists of:

- The Japan Environment and Children's Study (JECS), a cohort beginning in pregnancy and following children until 13 years of age [Kawamoto et al, 2014~~Ref~~].
- The Etude Longitudinale Française depuis l'Enfance (ELFE~~lfe~~) that is tracking 18,300 children from birth to adulthood throughout metropolitan France to examine the effect of the environment on the child's development, health and socialization [Oleko et al., 2011; Vandentorren et al., 2009~~Ref~~].
- The Shanghai Municipality Bureau of Health Shanghai Birth Cohort Study, a pilot study that will measure environmental exposures on 4,000 pre-pregnant women, during pregnancy and their children through age two [Ref].
- Germany with its deep experience in biomonitoring and environmental survey. The country is currently conducting the fifth German Environmental Survey (GerES). It includes children and youth from 3 to 17 years of age and focuses on chemical exposures [Ref]. Germany is in the planning stages for a cohort study on children's environmental health [Ref].
- The Danish National Birth Cohort (DNBC) started in [Ref].
- The Norwegian Mother and Child Cohort Study (MoBa) [Magnus et al., 2016~~Ref~~].
- How should we describe Ruth's participation?

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~~The US National Children's Study (NCS) was initially a member of the group and played a significant role. A various methods and procedures of the NCS were shared among the group which greatly benefitted each study. The NCS provided many in-kind contributions to the group including a teleconference facility and translation capacity. Unfortunately, the NCS was terminated and therefore no longer present in the group. The ECHIBCG acknowledges the NCS's contribution.~~

2.2. Study design, samples sizes and biomonitoring methods

Key characteristics of the studies represented in the ECHIBCG are described below and summarized in Table 1. Do we need short paragraphs that describe each cohort? JOACHIM: I suggest yes, as it will be the first publication and we can use it also for referring back to it in upcoming further manuscripts. Also some items in the table are not self-explanatory, and especially it would allow a more precise description of the German data which is in fact not a cohort. Perhaps one center can take the lead and draft a one paragraph description that the others can follow to harmonise the descriptions

From Ruth. I have inserted here the earlier descriptions that several studies provided to me – they will need to be reviewed for accuracy.

Japan Environment and Children's Study

The Japan Environment and Children's Study (JECS) started the recruitment of pregnant women in January 2011 and concluded in March 2014. The study enrolled more than 103,000 participants in Japan, and will follow them for 13 years. The study organization is led by the Ministry of the Environment, National Institute for Environmental Studies, among other stakeholders, including 15 Regional Centers (locations of the study nationwide). Funding for the study is provided by the Japanese parliament.

The study will investigate environmental exposure during the fetal, infant, and early childhood stages and how they adversely affect children's health. The main emphasis will be given to environmental chemicals such as persistent organic pollutants (POPs: dioxins, PCBs, organofluorine compounds, flame retardants, etc.), heavy metals (mercury, lead, arsenic, cadmium, etc), endocrine disruptors (bisphenol A, etc), agrichemicals, volatile organic compounds (benzene, etc). Genetics, socio-economics and lifestyle information will also be examined.

Main outcomes will include physical development (preterm birth, low birth weight, development after birth, etc), congenital anomalies (hypospadias, cryptochidism, cleft lip, cleft palate, spina bifida,

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digestive tract obstruction, ventricular septal defects, Down's Syndrome, etc), sexual differentiation abnormalities (sex ratio, genital development impairment, sexual differentiation of the brain, etc), psychoneuro-development disorders (autism, learning disorders, attention-deficit/hyperactivity disorder (ADHD), etc), immune system disorders (pediatric allergies, atopic dermatitis, asthma, etc), endocrine / metabolic abnormalities (lowered glucose tolerance, obesity, etc.).

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The Etude Longitudinale Française depuis l'Enfance

ELFE is to understand how the environment, from pre-birth to late adolescence, affects the child's development, health, socialization, and school career. The ultimate goal of ELFE is to produce knowledge that will improve the health and well-being of all children. The study is being led by a joint unit between the French National Institute of Demographic Studies (INED), the National Institute of Health and Medical Research (INSERM), and the Blood Agency (EFS). Initial funding for the recruitment and first follow-up sweeps study was provided by the Ministries of Health, Environment and Research through a "Large Infrastructure" Program; follow-up after 2 years is funded by the French national 'Investment for the future' program.

The recruitment occurred in 4 waves: 4 days in April, 6 days in June-July, 7 days in September-October, and 8 days in November-December. Eligible infants had to be born on an 'ELFE' day in randomly selected maternities, be more than 33 weeks gestation, a single or twin birth, and mother older than 18 years and able to sign consent. A pilot study was undertaken in 2007 to assess feasibility, acceptability, and pertinence. About 400 families were recruited in 4 different regions of France; 300 families are still participating. The full study, launched in the field at the end of March 2011, has recruited 18,312 infants and 18,024 mothers. Biological samples have been collected from 5,200 births. At the 2-month telephone survey, 91% of families participated. The participation rate was 81.7% at 1 year, and 79% at 2 years. Home visits are planned at 3, 5and a medical examination is planned around 8 years.

ELFE objectives focus on key issues that are 1) the consequences of the children health development and socialization of major societal changes such as changes in family structures, labor casualization, use of new technologies 2) the multifactorial determinants of the child school career 3) the early environmental, nutritional and psychosocial exposures in the context of the developmental origin of adult health and diseases theory 4) understanding social health inequalities.

Among environmental exposures, the ELFE project aims to identify pollutants currently causing concern (flame retardants, phthalates, bisphenol A, pesticides, heavy metals, indoor and outdoor air pollutants) that present a short- or long-term risk for vulnerable persons (pregnant women, unborn babies, young children) at concentrations currently observed in France. The study data will also

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provide information on ways of reducing this risk. Contaminants are measured at birth in maternal and cord blood as part of the perinatal part of the French biomonitoring plan (Vandentorren et al., 2009).

The Shanghai Birth Cohort Study

The aim of the Shanghai Birth Cohort is to study the effects of genetic, environmental and behavioral factors on women's reproductive health, pregnancy outcome, child growth and development, and risk of diseases. The study is being led by the Ministry of Education - Shanghai Key Laboratory of Children's Environmental Health, Shanghai Jiao Tong University School of Medicine, Shanghai, China. Funding for the study is provided by the Shanghai Municipality Bureau of Health.

The first phase of the study will recruit 4,000 women planning pregnancy or in early gestation. To be included in the study, women must be 20 years of age or older, planning to be pregnant and to received prenatal care and give birth in a participating hospital, registered residents of Shanghai municipality, have lived in Shanghai in the past 2 years, and not plan to move out of the catchment area in the next 2 years. Women who have tried to conceive spontaneously for more than 12 months will not be included in the preconception cohort. However, if they become pregnant by all means later, they can be enrolled at early gestation. Participants and their children will be followed up until at 1st, 2nd, 3rd trimesters, at birth, and at 42 days postpartum, 6 months, 1 year the children are 2 years of age, ideally longer, depending on funding. Recruitment for the cohort study will take place in the hospital, which will give maximum efficiency. Women who do not come for preconception care can still be recruited in early gestation. Enrolment began in April of 2013.

The Shanghai Birth Cohort study uses interviewer administered questionnaires. Women planning pregnancy will be asked to spend about 1 hour while in the hospital for preconception care or first prenatal care answering the interviewer's questions and biological sample collection. The latter includes venous blood, cord blood, urine, nails, breast milk, semen, placenta, buccal swab and hair. A subcohort of 1000 more cooperative volunteers will be involved in a more detailed study of nutrition and home environmental exposure. Their home will be visited by a research team and their household dust, drinking water and indoor air samples will be collected for measurement of environmental pollutants of interest.

Other brief cohort descriptions to be added here.

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The Norwegian Mother and Child Cohort Study (MoBa)

MoBa is a prospective population-based pregnancy cohort study conducted by the Norwegian Institute of Public Health (Magnus et al. 2016). Participants were recruited from all over Norway from 1999-2008, and 40.6 % of the invited women consented to participate. The cohort now includes some 114,500 children, 95,200 mothers and 75,200 fathers. MoBa includes information from The Medical Birth Registry of Norway, which comprises data on all births in Norway (Irgens 2000). The

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mothers were recruited in the first trimester and they filled in three questionnaires during pregnancy, including an extensive food frequency questionnaire. Additionally, child development is continuously followed through questionnaires at intervals since birth, and through linkage to national registries (e.g. the Norwegian Patient Registry on clinical diagnoses and the Norwegian Prescription Database for dispensed drugs). The current study is based on n=2984 pregnant women from the MoBa-ETox subsample (Figure 1) which is part of the first phase of the Norwegian Human Environmental Biomonitoring Program.

2.3. ECHIBCG round-robin test procedures

Sample shipment

The group undertook an inter-laboratory comparison (round-robin) project in 2014 for elemental analysis of blood samples. Participated laboratories are A, B and C from Japan, D from France, E from Germany and F from China. (Do we want to name the labs?) The group first examined each country's custom regulation for the transportation of frozen blood samples. Second water samples were sent to France and Germany on dry ice and with temperature loggers to evaluate the transportation process. The group used JECS in-house reference material (RM) for whole blood round-robin tests among France, Germany and Japan. Four vials of JECS RM (2 ml polypropylene cryo-vials with 2-D barcode on the bottom) were shipped to each designated laboratory or facility in France, Germany and Japan. The vials were placed in a secondary container (polypropylene) that was packed in a zip-lock plastic bag. The sample containers were then set in a Styrofoam box that contained a few kg of dry ice. A temperature logger was placed on top of the samples. Upon receipt, the participating laboratories visually observed the sample condition and filled out a shipment evaluation sheet. Each laboratory sent the completed evaluation sheet and the temperature logger back to JECS Programme Office where the information was examined and compiled. For China, a commercially available reference material, Seronorm™ Trace Element Whole Blood L-1 (REF 210105, Lot. 1003191, Sero AS, Billingstad, Norway), was used since it could not import human specimens. The Chinese and Japanese laboratories purchased the material from their own distributors and used as the shared samples.

Processing

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The RM were kept in its original vials and stored frozen at or below negative 20°C until use. Freezers were temperature controlled and monitored with limited temperature fluctuation. Before use, a frozen sample were allowed to thaw at room temperature. The samples were mixed by gently rocking or mildly swirling (not shaking) the vial to remix any water that may have separated on freezing. Because of possible evaporative losses, it was advised that the contents of a vial not be used if less than one-third of the original blood volume remained.

Analysis

Each laboratory analysed all 4 vials in at least 3 replicates for lead using its own methods. The laboratories were provided with an electronic reporting format, in which they reported the results of the analysis including concentrations, method summary description and method performance characteristics. The laboratory analytical procedures involved in this trial ~~we~~are shown in Table 2.

2.4 Blood lead measurements and covariate data acquisition

Lead levels were determined in mothers' whole blood during pregnancy in Japan and Norway, in the women's whole blood in Germany (~~women were not~~ non-pregnant women), and in cord blood in China and France. All measurements were above detection limits, although they varied across studies, being lowest in Norway with 0.08 μg l^{-1} and highest in France with 0.6 μg l^{-1}. Time periods from taking the blood samples also varied across studies; for Japan it was 2011-14, Norway (2002-2008), France 2011, China 2014-15, and Germany 2010-17. No calibrations were made for whole blood vs cord blood or for the time period, as it was not possible to quantify the possible impact due to lack of comparison data. All lead levels were harmonized to the unit of μg l^{-1}.

Possible explanatory factors of maternal lead levels as identified in a stepwise process (described in Methods section 2.5) were acquired from questionnaires developed by each centre and had to be harmonized across centres. Finally, selected explanatory factors at the time of sampling were maternal smoking (current, former (stopped at least [redacted] years before sampling), not active but passive smoking in household, and never smoking including no current passive smoking); maternal age (categorized into <25 years, 25-34 years, 35+ years); maternal body-mass-index (BMI)

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(categorized into <18.5, 18.5-25, and 25+ kg/m^2 (overweight or obese, as the latter group included too few subjects in most studies)), consumption of coffee, tea, tap water, or bottled water (all in categories less than once, 1-2 times, 3+ times per week); alcohol drinking (current when pregnancy was known, former (stopped before pregnancy or as soon as known), never), chocolate consumption (categorized into less than once, 1-2 times, 3+ times per week); and whether renovation works at home took place during pregnancy. In Germany, variables referring to pregnancy referred to the sampling time period, as sampled population ~~in that study~~ were non-pregnant women ~~were sampled~~. Education was kept in the final model for adjustment ~~but in~~ the original categories, usually ~~some~~ gradient from low to high in several steps, as studies came from ~~such~~ different parts of the world and ~~so that~~ the attempts to harmonize were not meaningful. Other harmonized variables ~~but~~ not kept in the final analytical model (see 2.5) were sex of offspring, pre-term or term pregnancy, or parity (first vs later born child) (all not relevant for Germany), as well as consumption of bread, dairy products, seafood, or vegetables, and year of construction of the house where the ~~mother~~ women lived. ~~Mainly in variables on consumptions sometimes~~ Slight compromises had to be made in variables related to foods consumption, as dietary questions were not identical. In China, Japan and Norway the item "tea" consists of only green tea while it is different types of tea in France and Germany. In Japan, coffee consumption was specified as only from beans and green tea as only from leafs. In France, units of coffee and tea consumption were measured in less than once, once, or 2+ times per week.

2.5 Statistical analysis

As all of the studies had~~ve~~ to follow their own countries/regions' data protection rules/legislations, most of the studies were not able to share the data with others. Thus, we employed de-centralised data analysis.

The f~~F~~irst step was a descriptive analyses, obtaining univariate statistics by study, ~~for instance~~ e.g. means, median and ~~other~~ percentiles. For visualisation, we created a boxplot-like figure ~~with however~~ where ~~plotting the boxes with using~~ the 10th and 90th percentiles were used as whiskers when plotting the boxes, the 1st (25th percentile) and 3rd quartile (75th percentile) as the box range, the median (50th percentile) as box separator, and the 99th percentile as external extra asterisk, rather than the common

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boxplot definition, to avoid distraction by outliers as we aimed at a visual comparison of majority of measured values across studies.

The s~~S~~econd step was to identify common factors influencing lead levels, with the identification of possibly relevant factors through two mechanisms. First, we did a literature search looking for factors being established in at least one publication as influencing blood lead levels in ~~women~~ and that ~~were~~ had been~~also~~ assessed in at least the majority of our studies. Second, studies analysed their own data and selected factors having influence on the lead level, irrespective of the magnitude. From this list, a first stage linear model was developed including all factors on the combined list. From this run, all variables ~~were removed~~ that did not lead to ~~an~~ at least 20% change in lead levels in at least one of the studies were removed. This ~~was the~~ final model was applied independently to each study to obtain the coefficients of the individual explanatory factors and their uncertainty, as well as the unadjusted and adjusted R^2 of the model, indicating the percentage~~%~~ variation in lead levels explained by the model (final selection of variables already shown in Methods section 2.4). The 20% change-criterion for choosing variables was preferred over the p-value due to the highly varying sample sizes across studies; while for Japan even tiny changes became formally statistically significant, this was only the case for major changes in ~~for instance~~ China, for instance. Finally, we applied to the data the coefficients for smoking, maternal age and BMI, which were the relevant explanatory factors with highest comparability across studies, ~~to the data~~ to compare predictions of how much lead levels ~~on average~~ increase on average with exposure to current smoking, high maternal age, and high BMI in the individual studies.

Instructions for analyses were developed at the International Agency for Research on Cancer (IARC) together with the study principal investigators, to make sure the approach was~~is~~ identical, ~~but~~ afterwards analyses ~~as mentioned above~~ were carried out de-centrally, as mentioned above. All studies had~~ve~~ national ethical clearance.

3. Results

3.1. Round-robin tests

Round-robin samples and transportation

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The US National Institute of Standard and Technology (NIST) standard reference material (SRM) 995c (toxic elements in caprine blood), which was certified for lead at four concentration levels: a base level and three progressively elevated levels, was initially considered suitable for use in the round-robin trial. However, it appeared that a health certificate was required in most countries to import the SRM 955c made of goat blood. Considering that NIST was not ready to issue the certificate, the use of the SRM 955c did not seem practical. The group decided to use a JECS in-house RM made of human blood officially acquired from the Japanese Red Cross. The shipment took from 3 days and went well with the temperature kept below negative 60°C on dry ice. China found that it could not import human materials easily. Sending samples on dry ice to China was also extremely difficult and expensive. Thus, we asked the Chinese laboratory to purchase the Seronorm™ Trace Element Whole Blood from a Chinese distributor as the Japanese laboratories did from a Japanese distributor.

Round-robin result

The results of the round-robin trials are illustrated in Figure 1. French and German laboratories reported the results in a μg l^{-1} unit and Japanese laboratories did in a ng g^{-1} unit. The Japanese data were converted into μg l^{-1} for comparison using a specific gravity of 1.05 [Ref]. French and German laboratories reported the mean concentrations of 8.71 and 8.27 μg l^{-1} with relative standard deviations (RSDs) of 2.9% and 2.5%, respectively. Three Japanese laboratories showed mean concentrations of 8.76, 8.83 and 8.75 μg l^{-1} with RSDs of 1.1%, 0.8% and 0.8%, respectively. Overall mean concentration was 8.66 μg l^{-1} (95% confidence interval: 8.59–8.72 μg l^{-1}) with 3.0% RSD.

China and Japan.

3.2. Current blood lead levels

Each study using each own method reported lead concentrations in cord blood or whole blood samples as described in Methods section 2.4. Numbers of available samples differed greatly by study, with 17,998 samples from Japan, 2,982 from Norway, 1,842 from Germany, 1,670 from France, and 423 from China. Distributions of lead levels by study are displayed in Figure 2. With the exception of

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China, median values were close to or lower than 10 µg l^{-1} and 90th percentiles close to or lower than 20 µg l^{-1}. None of the 99th percentiles exceeded 50 µg l^{-1}. Maximally measured levels were 202 µg l^{-1} in Norway, 107 µg l^{-1} in France, 103 µg l^{-1} in Germany, 80.5 µg l^{-1} in China, and 74.5 µg l^{-1} in Japan (not shown in Figure).

3.3. Determinants of blood lead levels

Each group analysed their own data to examine determinants of blood lead concentrations according to the same instructions as described in Methods section 2.5. Table ~~2~~3 shows the results of the final model with explanatory factors having an impact ~~with~~ of at least 20% change in average lead levels in at least one study, and subsequently applied to all studies. Items shown in Table ~~2~~3 include the number of subjects in each category, the coefficient of change and its standard error compared to the reference category, as well as ~~—at the bottom of the table—~~ the intercept of the model (reflecting the lead levels by country with all explanatory factors in their reference category; bottom of the table) and the R^2 values. In line with Figure 2, the intercept shown in Table ~~2~~3 confirms the lowest lead levels in Japan and France and the highest in China and in Germany. The R^2 was below 10% in each study, suggesting that, albeit being associated with the lead levels, the explanatory factors have little predictive power to estimate individual lead levels, and this was common across studies; the highest R^2 was seen in France. Current smoking increased lead levels in all studies in a similar magnitude (including the very low number of~~too few~~ subjects in China ~~however), of similar magnitude, only~~ except for Germany, where the increase was more pronounced ~~in Germany~~. A positive association was also seen in all studies with increasing maternal age, whereas for BMI most studies showed an increase in overweight and obese women, with the exception of Norway. Patterns ~~with~~ of coffee, tea or tap water consumption showed weaker relations, not always entirely consistent across studies, and even lesser so for alcohol, chocolate and renovation works at home (Table ~~2~~3).

Figure 3 shows the change in lead level by study of women who were never active and are no passive smokers, are aged <25 years, and are underweight compared to those who are current smokers, aged 35 years or older, and are overweight or obese. The combination of those three ~~characteristics~~ variables leads to an increase in lead levels in each of the five studies, most strongly in France by

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almost 80% and the weakest effect being in Norway with only 15%; for Japan, with the far largest sample, the difference was 36%.

4. Discussion

4.1. Comparability of each study data

Measurements are sufficiently comparable based on the round-robin results with overall RSD being 3.0%.

(incl. factors affecting comparability)

Comparability could be further enhanced by … (recommendations for future cohorts and other HBM activities)

4.2. Comparison of blood lead levels

The m~~M~~ajor aim of the analyses was looking at common factors influencing blood lead levels and some observed consistencies and some inconsistencies across the five studies from five different countries are indeed of interest. Consistent across all settings was that, although we used a very inclusive approach of investigating potential explanatory factors, the final model had still little predictive power with explaining less than 10% of variance. This suggests that general characteristics such as for example on dietary patterns (how many vegetables one eats on average) has less influence on blood lead levels than the food location or the processing method~~the very individual habits like where the recently eaten vegetables were grown and how they were processed~~. This is the likely reason why all dietary factors, including type of water consumption or beverages like coffee, tea or alcohol, did not emerge as strong explanatory factors, but this is an important finding as such, especially as it applies commonly to all countries. ~~So~~ The main modifiable factor to lower blood lead levels ~~is~~ appears to be ~~to~~ quitting smoking, again consistent across countries, and, to lesser extent, avoiding being ~~overweight~~overweighed and obes~~e~~ity. Other consistent factors are either not modifiable, like age, or not recommendable to attain for health reasons, e.g. ~~although~~ blood lead levels were lower in underweight persons~~, are not recommendable due to other harms~~. Coffee and tea consumption led to higher blood lead levels, of somewhat differing magnitude by country, and for us

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impossible to disentangle whether the underlying factor is the coffee ~~or~~, the ~~-~~tea or the water ~~with~~ in which it is prepared. A number of dietary factors was associated with blood lead levels in France, albeit not strongly so, but not confirmed in the other countries. Interestingly, the association was reversed for chocolate intake in several countries. Birth characteristics like gestational age, sex of the offspring or parity had no effect in any country.

Measured blood lead levels were lowest in Japan, followed by France and Norway, somewhat higher in Germany and highest in China. This applies however to our studies and is not necessarily representative for a cross-country comparison, due to different sampling strategies of study participants and study methodologies. First, the impact of whole blood vs cord blood and sampling in slightly different time periods, as well as some analytical uncertainty as shown ~~in~~ by the round robin test, cannot be quantified to calibrate the measured values; in addition, ~~-and~~ differences across most countries are not very large. Second, the sample from Japan is by far the largest and has therefore considerably less random noise, ~~perhaps~~ possibly being the most representative. Third, certainly direct comparison with Germany and China is not straightforward. In Germany, sampled women were not pregnant and ~~perhaps~~ different lifestyles, living conditions and behaviours makes them probably less comparable to the pregnant women of the other studies. In China, the study was only carried out in Shanghai as a metropolitan area, while the other studies included less urban environments. Nevertheless, all studies have in common that in general measured blood lead levels were low, with very few exceptions exceeding 50 µg/L.

4.3. Implication of the harmonisation exercise

We demonstrated the possibility of the harmonisation of chemical biomonitoring data by using a reference material. The data can be compared and pooled in reference to the measurement results of the reference material, even though each study employs its own analytical protocols and own laboratory and performs the analysis in different time and places. Our practice also showed the usefulness of a round-robin exercise to illustrate the performance of each study analysis. We knew that each study used laboratories having accreditations for the particular analysis or having participated in an external quality assurance programme such as the German External Quality

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Assessment Scheme (G-EQUAS). However, that was not sufficient to evaluate the comparability of the analysis data among the group. The round-robin results demonstrated the importance of the use of reference materials in each study in order to pool the data afterwards.

HERE COMES THE IMPLICATION OF JOINT STATS ANALYSIS.

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5. Conclusions

Acknowledgement

The US National Children's Study (NCS) was initially a member of the group and played a significant role. The ECHIBCG acknowledges the NCS for sharing various methods and procedures and ~~The NCS~~ providing~~ed~~ many in-kind contributions to the group including a teleconference facility and translation capacity.

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Table 1. Study design and key characteristics of the ECHIBCG members (Study design, samples sizes and biomonitoring methods)

	Japan Environment and Children's Study (JES)	Etude Longitudinale Française depuis l'Enfance (Elfe)	Shanghai Birth Cohort Study	Danish National Birth Cohort (DNBC)	Norwegian Mother and Child Cohort Study (MoBa)	German Environmental Specimen Bank (ESB)
Design	Prospective birth cohort	Prospective birth cohort	Prospective birth cohort		Prospective birth cohort	Annually repeated cross-sectional, self-selection sampling (volunteers)
Size	103,099 mothers 100,108 children 51,909 fathers	18 040 mothers 18 329 newborns 287 twin pairs	4606 mothers 3692 livebirths		95,200 mothers 114,500 children 75,200 fathers	approx. 120 per year (60 female, 60 male)
Sample size for the lead analysis	17998	1670	423		2982	1842
Planned? follow up	13 years of age	20 years of age	At least 10 years of age		Rest of life	No follow up of participants

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Last completed follow-up		7 years			
Location	Japan	Mainland France	Shanghai municipality	Norway	Munster, Greifswald, Halle/Saale, and Ulm
Completed evaluation cycle	Pregnancy, First trimester, second–third trimester Birth 1 month 6 months every 6 months till 12 years	Birth 2 months 1 year 2 years 3.5 years 4-5 years (school survey) 5.5 years 6-7 years (school survey)	Pregnancy: 1st, 2nd, 3rd trimester, birth, 6 weeks, 6 months, 1, 2, 4, 7, 10 years.	Pregnancy: GW 17, 22, 30. Birth, 6mo, 18mo, 3, 5, 7, 8, 14 years.	Singular sampling
Completed?	Main cohort:	Sub cohort 1500-	Maternal blood,	Maternal blood and	Whole blood,

Commented [Mc2]: It would be better as there are alwayw uncertainties for the timing of the planned evaluations

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Biomonitoring	Maternal blood (first trimester, second–third trimester, at birth) Maternal urine (first trimester and second–third trimester) Maternal hair and breast milk (1 m) Cord blood Child hair and dried blood spot (1 m) Paternal blood (ad libitum) Child urine (8 y) Child blood and	3000) Maternal blood (birth) Maternal urine (birth) Maternal colostrum (birth) Maternal hair (birth) Cord blood Meconium Child urine (3.5 years) Child stool (birth, 12-18 months, 3.5 years) Child hair (3.5	maternal urine, maternal hair, cord blood, placenta, cord tissue, child hair, dried blood spot, father's buccal swab, child urine and blood (2 y and 4 y)	urine week 17 in pregnancy. Cord blood.	blood plasma, and 24h-urine

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	urine (12y) Sub-cohort (5,000): Child blood (2 y) Child blood and urine (4, 6, 8, 10 and 12 y)	years)			
Date and type of sampling for lead	Maternal blood (mid–late trimester) 2011–2014	Cord blood	Cord blood 2014 - 2015	Maternal blood, week 17 of pregnancy	Whole Blood Women (aged 20-29), from 2010-2016
Funding	Ministry of the Environment	Ministries of health, environment, research, culture, National insitute for youth and education,	Shanghai Bureau of Health	The Norwegian Ministry of Health and the Ministry of Education and Research, NIH/NIEHS	German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

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		Familial allowance national fund, National research agency (Investment for the future call)			
Website	www.env.go.jp/en/chemi/hs/jecs/	www.elfe-france.fr	www.shyousheng.net	https://www.fhi.no/studier/moba/	www.umweltprobenbank.de/en/

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Table 2. Summary of the analytical procedures employed in participating laboratories.

	France	Germany	China	Japan
Sample preparation	Samples (300 µl) were transferred into a 13-ml polypropylene tube and mixed with 2700 µl dilution solution. Dilution solution was made by adding 10 ml 25% NH_4OH, 250 mg EDTA dipotassium salt and 250 µl Triton X-100 into a volumetric flask and filled up to 500 ml with double distilled water.			Samples (200 µl) were diluted (1:19) with the dilution solution and vortex mixed. Dilution solution consisted of 2% v/v butan-1-ol, 0.1% TMAH, 0.5 g l^{-1} POE and 0.5 g l^{-1} H_4EDTA
Instrumental analysis	ICP-MS (Agilent Technologies 7500) with ASX 500 auto-sampler			ICP-MS (Agilent 7700 ICP-MS) with auto-sampler

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Calibration and calculation	External calibration was used. The limit of quantitation was 0.15 µg l^{-1}.	External calibration was used. The limit of quantitation was 0.13 ng g^{-1}.

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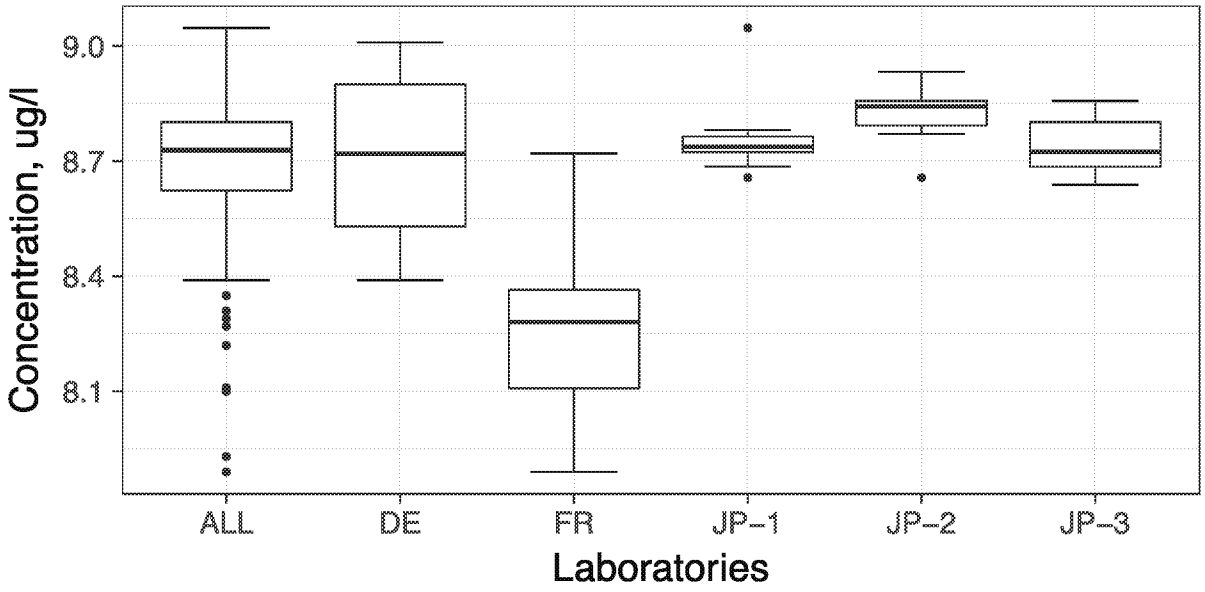

Figure 1. Lead round-robin test results.

Figure 2. Plot of lead level distributions by study visualized in boxplot-like shapes showing the 10th, 25th, 50th, 75th, 90th and 99th percentile.

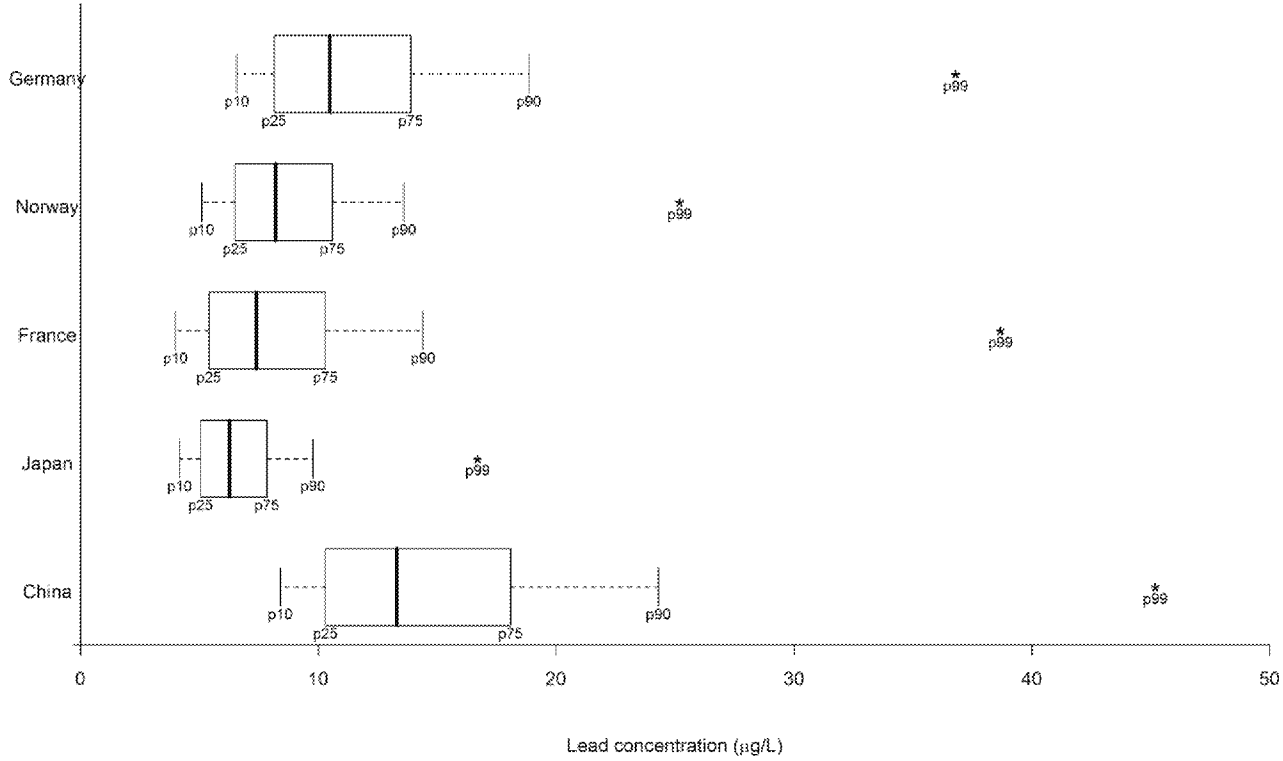

Table 23. Analyses of factors influencing lead concentration in blood by study, showing the numbers in categories, the regression coefficient and its standard error, and the intercept and unadjusted and adjusted R^2 at the bottom of the table

		Shanghai Birth Cohort Study			Japan Environment and Children's Study (JECS)			Etude Longitudi- nale Française depuis l'Enfance (Elfe)			Norwegian Mother and Child Cohort Study (MoBa)			German Environmental Specimen Bank (ESB)		
Variable		N	β	S.E.	N	β	S.E.	N	β	S.E.	N	β	S.E.	N	β	S.E.
Smoking	Never	335	1.00	-	7032	1.00	-	701	1.00	-	1552	1.00	-	1081	1.00	-
	Passive	74	1.43	0.88	2894	0.17	0.07	20	0.08	1.87	100	0.35	0.46	332	0.84	0.30
	Former	12	3.98	2.60	6729	0.34	0.05	399	-0.09	0.42	1157	0.20	0.19	200	1.65	0.36
	Current	2	NA	NA	884	1.27	0.11	380	1.13	0.49	173	1.19	0.39	213	3.33	0.35
Maternal age[&]	<25 years	25	1.00	-	1403	1.00	-	255	1.00	-	241	1.00	-	1224	1.00	-
	25-34 years	352	0.69	1.67	9149	0.21	0.08	1144	0.81	0.56	2257	-0.00	0.32	618	0.66	0.24
	35+ years	46	0.58	2.10	4000	0.60	0.09	261	1.98	0.68	484	0.53	0.38	0	NA	NA
BMI	<18.5 kg/m^2 (underweight)	56	1.00	-	2573	1.00	-	123	1.00	-	94	1.00	-	112	1.00	-
	≥18.5 and 25 kg/m^2 (healthy)	320	1.68	1.20	11579	0.07	0.06	1032	0.80	0.69	1913	-0.22	0.47	1494	0.43	0.56
	≥25 kg/m^2 (overweight and obese)	47	1.10	1.75	1691	0.36	0.09	494	1.72	0.73	918	-0.46	0.49	228	0.48	0.61
Coffee consumption[*]	Less than 1 time per week	0	1.00	-	13116	1.00	-	790	1.00	-	1489	1.00	-	653	1.00	-
	1-2 times per week[$]	0	NA	NA	1309	0.27	0.08	225	0.72	0.64	410	0.60	0.26	85	1.00	0.54
	More than 3 times per week[$$]	0	NA	NA	1287	0.20	0.08	482	1.52	0.41	1083	0.91	0.20	1101	0.27	0.25
Tea consumption[**]	Less than 1 time per week	358	1.00	-	8822	1.00	-	937	1.00	-	2091	1.00	-	501	1.00	-
	1-2 times per week[$]	0	NA	NA	2335	0.07	0.07	233	-0.07	0.60	380	0.04	0.26	160	-0.14	0.39

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	More than 3 times per week[$$]	65	0.32	1.16	4686	0.31	0.05	205	1.95	0.52	511	1.07	0.23	1181	0.21	0.24
Tap water consumption[#]	Less than 1 time per week	101	1.00	-	10380	1.00	-	640	1.00	-	87	1.00	-	37	1.00	-
	1-2 times per week[$]	0	NA	NA	1390	0.10	0.08	80	0.56	0.83	30	-0.20	0.96	12	0.69	1.60
	More than 3 times per week[$$]	322	0.79	1.06	4073	0.25	0.05	781	0.68	0.44	2829	-0.48	0.50	1788	0.39	0.78
Bottle water consumption	Less than 1 time per week	165	1.00	-	7379	1.00	-	344	1.00	-	1800	1.00	-	NA	1.00	-
	1-2 times per week[$]	0	NA	NA	1834	-0.13	0.08	152	0.76	0.66	377	-0.20	0.25	NA	NA	NA
	More than 3 times per week[$$]	258	2.28	1.58	6630	-0.21	0.05	999	-0.89	0.48	640	-0.26	0.21	NA	NA	NA
Alcohol (when pregnancy was known)	Never	347	1.00	-	8018	1.00	-	1269	1.00	-	278	1.00	-	NA	1.00	-
	Former	43	-1.04	1.38	7320	0.15	0.05	105	0.16	0.70	2599	0.57	0.30	NA	NA	NA
	Current	2	NA	NA	505	0.81	0.13	283	-0.13	0.46	79	1.91	0.61	NA	NA	NA
Chocolate consumption[##]	Less than 1 time per week	0	1.00	-	2773	1.00	-	212	1.00	-	880	1.00	-	196	1.00	-
	1-2 times per week	0	NA	NA	4797	-0.12	0.05	174	0.39	0.71	1244	-0.19	0.20	173	0.20	0.43
	More than 3 times per week	0	NA	NA	8358	-0.23	0.05	1087	-0.70	0.52	794	-0.25	0.22	1472	-0.52	0.32
Works at home	No renovation of residential home[^]	356	1.00	-	17044	1.00	-	887	1.00	-	NA	1.00	-	NA	1.00	-

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Renovation of residential home[++]	16	-3.22	2.20	564	0.28	0.06	616	0.33	0.35	NA	NA	NA	NA	NA	NA

	Value	Value	Value	Value	Value
Intercept (α)	12.43	6.11	6.23	8.57	11.11
R^2	0.05	0.03	0.09	0.03	0.04
R^2 (adjusted)	0.00	0.03	0.08	0.03	0.04

[&]age (Germany)
[*]from leaf (Japan)
[**]green tea (China, Japan and Norway)
[#]all types of water (Germany)
[##]sweets including chocolate(Germany)
[$]weekly (France)
[$$]daily (France and China, except for coffee)
[+]after becoming pregnant (Japan)
[++]after becoming pregnant (Japan)

ED_002399_00018829-00032

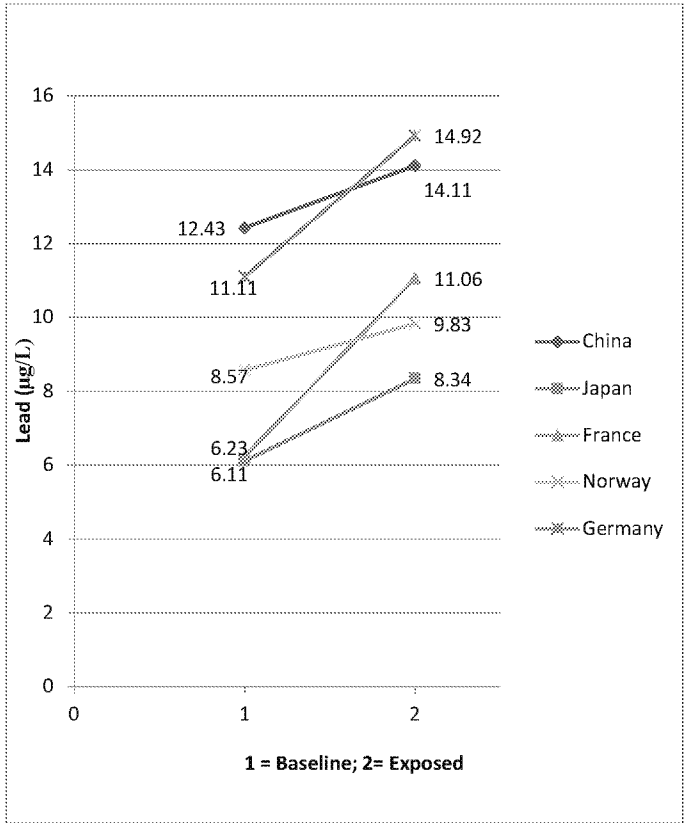

Figure 3. Change in blood lead levels by study with current smoking, age 35+ years, and being overweight or obese, in comparison to women who never smoked and have no passive exposure, are aged <25 years, and are underweight

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Message

From: Louie, Nica [Louie.Nica@epa.gov]
Sent: 9/4/2018 9:27:48 PM
To: AO-OCHP-Everyone [AOOCHPEveryone@epa.gov]
Subject: ORD research plans - Request for comment by September 11, 2018
Attachments: A-E FY19-22 StRAP final draft.docx; CSS FY19-22 StRAP final draft.docx; HSRP FY19-22 StRAP final draft.docx; SHC FY19-22 StRAP final draft.docx; SSWR FY19-22 StRAP final draft.docx; childrens health input for StRAP development.pdf

Hi everyone –
EPA's Office of Research and Development (ORD) is looking for OCHP input on the research plans for five of their six National Research Programs (attached). As you know, our goal is to ensure that children's environmental health is well represented in these plans.

If you can make the time to provide comments by September 11th, 2017, please let me know or stop by and we can chat. Specifically, any input on language that could (or should) be incorporated into these action plans would be greatly appreciated.

To keep the request brief, additional details that may be helpful have been included below.
Thank you!
- nica
==========

Background

- To refocus ORD's research and scientific analyses, each of ORD's six national research programs are revising their Strategic Research Action Plans (StRAPs) to cover the fiscal years 2019 – 2022. We are still awaiting the HHRA research plan.
- OCHP provided recommendations for ORD consideration as they prepared these plans (July 2018 memo attached for your reference).
- While children's health is cross-cutting, the bulk of ORD's children's health research is funded under SHC, CSS and some under HHRA. **If you have limited time, you may want to focus on the SHC and CSS plans**. The NIEHS/EPA Children's Centers program is funded under SHC.
- ORD has requested responses to a few charge questions which have been copied below and if you would like to provide comments on those, you are also welcome to do so.
  Charge questions
  To facilitate your review, we have developed proposed charge questions on which we would like you to focus:
  - Does the ORD Strategic Research Action Plan (StRAP) highlight the environmental challenges that you have identified as most important to your Program/Region? If not, please elaborate.
  - Which of the identified Program, Region, State, and/or Tribal needs and research outputs are most important to your Program/Region? Please identify those needs that are most immediate.
  - Please provide any further comments on the StRAP.
  - With the objective of providing the most useful research products, do you have recommendations on how you would like us to continue close ORD-Program/Regional coordination as the StRAPs are implemented into research products?
- Acronyms/ORD research programs:
  1. Air and Energy (A-E)
  2. Chemical Safety for Sustainability (CSS)
  3. Homeland Security Research Program (HSRP)
  4. Human Health Risk Assessment (HHRA)
  5. Safe and Sustainable Water Resources (SSWR)
  6. Sustainable and Healthy Communities (SHC)

Nica Louie
Program Officer
EPA/NIEHS Children's Environmental Health and Disease Prevention Research Centers
National Center for Environmental Research
U.S. Environmental Protection Agency

On Detail at
Regulatory Support and Science Policy Division
U.S. EPA Office of Children's Health Protection
1300 Pennsylvania Ave., NW,
Washington, D.C. 20004
202-564-7633

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

July 2, 2018

OFFICE OF
CHILDREN'S HEALTH PROTECTION

MEMORANDUM

SUBJECT: Children's Environmental Health Research Needs: input for drafting revised Strategic Research Action Plans (StRAPs)

FROM: Brenda Foos, Director, Regulatory Support and Science Policy, Office of Children's Health Protection (OCHP) Brenda Foos

THROUGH: Ruth Etzel, OCHP Director Ruth Etzel

TO: Bruce Rodan, Associate Director for Science, Office of Research and Development (ORD)
Tina Bahadori, ORD Human Health Risk Assessment National Research Program Director
Jeff Frithsen, ORD Chemical Safety for Sustainability National Research Program Director
Greg Sayles, ORD Homeland Security National Research Program Director
Mike Slimak, ORD Sustainable and Health Communities National Research Program Director
Susanne van Drunick, ORD Safe and Sustainable Water National Research Program Director
Alan Vette, ORD Acting Air and Energy National Research Program Director

In past research planning efforts, OCHP has engaged with ORD through a variety of meetings and workgroups, and currently OCHP is aware the StRAPs are under revision with drafts to be produced in the very near future. However, due to staffing changes we are currently unable to participate in research planning at the same level that we have in the past. In order to share our input with all of you, we are sending for your consideration this letter with both overarching and specific requests for children's environmental health (CEH) in the current process of developing StRAP updates. We want to provide this input to you all right now, for immediate use in the preparation of the draft revised StRAPs.

Children's health is a key part of EPA's efforts, and is explicitly identified in the Agency's CEH policy, Executive Order 13045, and several statutory mandates.[1] CEH is a cross-cutting topic that we believe likely has interest in all six of the national research programs, and as such we offer the following overarching requests for CEH as you move forward with drafting StRAPs:

- Consider lifestages wherever feasible, in particular pregnancy and early postnatal lifestages.
    a. In animal and human studies proposed within ORD research programs, the study design should include developmental lifestages when possible, even if the research question is not limited to lifestages.

[1] EPA's Policy on Evaluating Risks to Children
Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks
Statutes: Food Quality Protection Act, Safe Drinking Water Act Amendments, and the amended Toxic Substances Control Act

b. Across many areas of human health related research, the issue of lifestage can be explicitly addressed: What lifestages are considered in the research? How do the resulting data describe the lifestages and outcomes?

- Include research supportive of EPA action on current CEH priorities, specifically prevention of multipathway lead exposure and chemical safety under the amended Toxic Substances Control Act. These priority areas have many complex questions for children's health that may be answered with additional research, including exposures from a variety of sources and chemical-specific health assessments that included robust information to address developmental/childhood effects, as well as later life effects due to early life exposure.

In addition to these overarching requests, we have specific requests for key CEH research. While we believe there are many important topics needing CEH research, we have identified the following areas that we regard as high priority for our program:

- Continue the EPA/NIEHS Children's Environmental Health and Disease Prevention Research Centers. Over the past two decades this research centers program has produced extensive, interdisciplinary research to advance our understanding of CEH in many areas of EPA's work. It is our request to continue this winning program.
- Conduct empirical research to produce additional new data that will improve the available dataset and inform children's age-specific soil and dust ingestion rates. The current scientific literature on this topic has limitations, yet the exposure factors based on the current dataset are used widely in human health risk assessment and often drive EPA's actions. Moreover, soil and dust data are key in assessing childhood lead ingestion, which supports the Administrator's top priority of reducing childhood lead exposure.
- Include childhood lead research that is consistent with the Agency's lead initiative and the soon to be final "Federal Strategy to Reduce Childhood Lead Exposures and Associated Health Impacts."
- Take the lead to the development of children's health related assessment tools that aid the implementation of the amended Toxic Substances Control Act.[2]

We look forward to seeing the application of this children's health input in the draft revised StRAPs. In particular, we believe the CEH PACT members will be useful in reviewing the CEH content of the revised draft StRAPs, and we request specific updates from ORD regarding the resulting research for CEH. We also request ORD establish an approach for tracking and reporting current CEH research across the six national research program areas in a way that will help guide the communication of key CEH findings, the application of this research in our program as well as others, and the future directions for CEH research.

If you have any questions regarding this letter, please do not hesitate to contact me at 202-564-2707 or foos.brenda@epa.gov. Thank you for your children's health efforts!

Cc: Michael Firestone, Acting OCHP Deputy Director

---

[2] TSCA Section 2602 Definitions: The term "potentially exposed or susceptible subpopulation" means a group of individuals within the general population identified by the Administrator who, due to either greater susceptibility or greater exposure may be at greater risk than the general population of adverse health effects from exposure to a chemical substance or mixture, such as **infants, children, pregnant women**, workers or the elderly.

Message

From: Firestone, Michael [Firestone.Michael@epa.gov]
Sent: 8/30/2018 2:12:50 PM
To: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]; Hughes, Hayley [hughes.hayley@epa.gov]; Grantham, Nancy [Grantham.Nancy@epa.gov]
CC: Etzel, Ruth [Etzel.Ruth@epa.gov]; Hackel, Angela [Hackel.Angela@epa.gov]
Subject: RE: Lead Strategy Comments discussions w/ Helena
Attachments: FLS Comment Matrix HH MS MF OCHP 08-30-18.xlsx; 08-30-18 Status of Federal Lead Strategy.pptx; 8-30-2018 Draft FLS.docx; 8-23-18 Summary version of the Draft Federal Lead Strategy.docx

All

For this afternoon's meeting, please find very slightly revised versions of:

Hayley's spreadsheet with OCHP additions

Draft Strategy (both long & short versions)

Draft briefing slides

Michael P. Firestone, Ph.D., Acting Deputy Director
Office of Children's Health Protection (MC 1107T)
U.S. Environmental Protection Agency
Office: 202-564-2199
Cell: Ex. 6

-----Original Appointment-----
From: Wooden-Aguilar, Helena
Sent: Wednesday, August 29, 2018 7:17 PM
To: Wooden-Aguilar, Helena; Firestone, Michael; Hughes, Hayley; Grantham, Nancy
Subject: Lead Strategy Comments discussions w/ Helena
When: Thursday, August 30, 2018 2:30 PM-3:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: WJC-N., Rm., 3304A

Message

From: Schroeder, Kathleen [Schroeder.Kathleen@epa.gov]
Sent: 8/28/2018 1:00:44 PM
To: AO-OCHP-Everyone [AOOCHPEveryone@epa.gov]
Subject: RE: Question about lead testing in schools [EXTERNAL]

AAP listserv string on lead testing re: lead in water in schools.

Kathy

Kathleen Schroeder, MD, MSI
Senior Environmental Employment Program
SEE Enrollee
US EPA
Office of Children's Health Protection

schroeder.kathleen@epa.gov
202-566-2279

From: AAP Env Health ECHO [mailto:AAPENVHEALTHECHO@LISTSERV.AAP.ORG] **On Behalf Of** Claire Barnett
Sent: Monday, August 27, 2018 5:57 PM
To: AAPENVHEALTHECHO@LISTSERV.AAP.ORG
Subject: Re: Question about lead testing in schools [EXTERNAL]

We call for primordial prevention.

PUT CHILDREN FIRST
Eliminate lead before, not after, children's exposures need to be investigated. No lead for kids

See National Collaborative workshop Report:

http://www.healthyschools.org/eliminating_lead_in_schools_and_childcare.pdf

CB

Claire Barnett
Healthy Schools Network
(M) 202-543-7555

On Aug 27, 2018, at 4:08 PM, Laura Capps <lcapps@VEIC.ORG> wrote:

> I'll chime in and say that even very low BLLs have a substantial impact on our children and communities. A recent report by The Health Impact Project (Pew and RWJF) completed by NCHH goes into details, and has an entire section on drinking water with a specific call-out for schools.
>
> A couple of screen shot below – keep in mind that Figure 3 was modeled information.
>
> <image002.jpg>
> <image004.png>

Laura Capps
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Efficiency Vermont
128 Lakeside Ave, Suite 401
Burlington, VT 05401
Direct: (802) 540-7841
lcapps@efficiencyvermont.com
www.efficiencyvermont.com
Connect with us on Twitter and Facebook

From: AAP Env Health ECHO [mailto:AAPENVHEALTHECHO@LISTSERV.AAP.ORG] **On Behalf Of** Buchanan, Susan
Sent: Monday, August 27, 2018 3:31 PM
To: AAPENVHEALTHECHO@LISTSERV.AAP.ORG
Subject: Re: Question about lead testing in schools [EXTERNAL]

Thanks for that reminder, Clare. We really aren't sure how high BLLs can go if lead in the water is super high. Does anyone else want to weigh in?

susan

From: AAP Env Health ECHO [mailto:AAPENVHEALTHECHO@LISTSERV.AAP.ORG] **On Behalf Of** Claire Barnett
Sent: Monday, August 27, 2018 2:02 PM
To: AAPENVHEALTHECHO@LISTSERV.AAP.ORG
Subject: Re: Question about lead testing in schools [EXTERNAL]

I want to caution listers against assuming there is very little lead in school water. News clips and tests at the tap have shown lead levels with a wide variation, from a somewhat "normal" of 30-50ppb or lower, to taps testing at 1,000 -> 20,000 ppb.

Pls also recognize that some high risk/low income children are at school for breakfast, snack, lunch, and afterschool meals, as well as weekend programs.

Public health agencies have not routinely assessed lead at school as a possible source of lead. So children documented to have lead exposures associated with educational settings are few and far between.

NB—if you don't look, you won't find.

Currently, for those interested, the Charlottesville-Mecklenburg District—one of the largest in the US, has refused to tell parents the result of tests at the tap. See https://www.google.com/search?rlz=1C1AWUB_enUS748US749&ei=y0mEW-v0BYSs_QaJ3qKQBA&q=charlottesville+mecklenburg+schools+and+lead+at+tap&oq=charlottesville+mecklenburg+schools+and+lead+at+tap&gs_l=psy-ab.12...0.0.3.1976.0.0.0.0.0.0.0.0..0.0....0...1..64.psy-ab..0.0.0....0._KmDHfvoDaw

Claire Barnett
Healthy Schools Network

From: AAP Env Health ECHO <AAPENVHEALTHECHO@LISTSERV.AAP.ORG> **On Behalf Of** Buchanan, Susan

Sent: Monday, August 27, 2018 2:23 PM
To: AAPENVHEALTHECHO@LISTSERV.AAP.ORG
Subject: Re: Question about lead testing in schools [EXTERNAL]

The lead-in-water issue is sooooo tough because intermittent ingestion from an elevated fountain is unlikely to raise the BLLS much, like Alan says below. But when the media gets ahold of elevated water results parents want their children tested, understandably.

While the BLLs are unlikely to be high maybe we should encourage testing in anyone who wants it and then slowly people will realize that the BLLs aren't going too high and this issue will not cause so much panic.

susan

Susan Buchanan, MD, MPH
Occupational and Environmental Medicine
Univ of Illinois at Chicago
835 S. Wolcott, Suite E-144, MC 684
Chicago, Illinois 60612
312-996-0806
Fax 312-413-8485

From: AAP Env Health ECHO [mailto:AAPENVHEALTHECHO@LISTSERV.AAP.ORG] **On Behalf Of** Woolf, Alan
Sent: Monday, August 27, 2018 1:05 PM
To: AAPENVHEALTHECHO@LISTSERV.AAP.ORG
Subject: Re: Question about lead testing in schools [EXTERNAL]

Hi Carolina,

We should discuss this interesting topic during one of our Fall ECHO sessions, which will be focused on different aspects of Childhood lead exposure.

In the case of school drinking fountains. There are strict protocols likely put out by the TN DPH about how technically such tests should be done in order to give school and health officials confidence in the accuracy of the results.

I've addressed such concerns of parents in town hall meetings whose children went to an Affected school. Our first advice to parents is talk to their child's HCP about their concerns.

In the absence of other environmental hazards...My advice to HCP has usually been that, if the Pb concentration is reasonably low (e.g. 11 ppb) then the risk of an appreciable BLL elevation in a school-aged child is very low, even if they drink alot of it. However if a parent insists, the BLL is inexpensive and the result will give piece of mind...

Hope this helps. Thanks for being a part of the AAP's PEH ECHO. Talk with you again soon.

Best wishes,
Alan

Sent from my iPhone

On Aug 27, 2018, at 10:45 AM, Carolina Clark <Carolina.Clark@TN.GOV> wrote:

Hi Everyone,

I was part of the AAP Environmental Health ECHO last spring. I'm a medical consultant for the Tennessee Childhood Lead Poisoning Prevention Program. A state law was passed in the most recent legislative session requiring TN public schools to test for lead in the water, effective January 2019. Our childhood lead program will be notified about the schools with abnormal results.

I've researched other states with similar laws to see if there were any recommendations on testing the children at affected schools, but I haven't been able to find any information. I know that most of these children would be older than the children we typically test in clinic, and there would be no way to know if an individual child was exposed. However, if I was seeing a child in clinic, and the parent told me he or she goes to a school where elevated lead levels were found in the water, I would probably recommend testing.

I was just curious if this group has any input. Thank you for the help!

Carolina

Carolina Clark, MD, MPH
Child Health Medical Consultant
Tennessee Department of Health

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http://listserv.aap.org/scripts/wa.exe?SUBED1=AAPENVHEALTHECHO&A=1

Message

From: Firestone, Michael [Firestone.Michael@epa.gov]
Sent: 8/27/2018 4:39:59 PM
To: Foos, Brenda [Foos.Brenda@epa.gov]
CC: Etzel, Ruth [Etzel.Ruth@epa.gov]
Subject: FW: SHC Strategic Research Action Plans (StRAP) for IntraAgency Review
Attachments: 2018 SHC StRAP Summary 08272018.pdf

Brenda

Can you and/or Nica take a look to see if we should prepare a response from OCHP?

Thanks.

Michael P. Firestone, Ph.D., Acting Deputy Director
Office of Children's Health Protection (MC 1107T)
U.S. Environmental Protection Agency
Office: 202-564-2199
Cell: Ex. 6

From: Geller, Andrew
Sent: Monday, August 27, 2018 12:06 PM
To: Dalbey, Matthew <Dalbey.Matthew@epa.gov>; Tejada, Matthew <Tejada.Matthew@epa.gov>; Etzel, Ruth <Etzel.Ruth@epa.gov>; Lee, Charles <Lee.Charles@epa.gov>; Thomas, John V. <Thomas.John@epa.gov>; Firestone, Michael <Firestone.Michael@epa.gov>; Cieniawski, Scott <cieniawski.scott@epa.gov>; Pelka, Amy E. <Pelka.Amy@epa.gov>
Cc: Slimak, Michael <Slimak.Michael@epa.gov>; Mazur, Sarah <Mazur.Sarah@epa.gov>; Chu, Karen <Chu.Karen@epa.gov>; McCullough, Melissa <Mccullough.Melissa@epa.gov>
Subject: RE: SHC Strategic Research Action Plans (StRAP) for IntraAgency Review

I've attached here a summary version of the SHC StRAP that we think might be helpful, especially for Executive Review of SHC's StRAP. (with attachment!)

Thank you,
Andrew

Andrew M Geller, PhD
Deputy National Program Director
Sustainable and Healthy Communities Research Program
US Environmental Protection Agency
MD E105-01
109 TW Alexander Drive
Research Triangle Park, NC 27711

office: 919.541.4208
cell: Ex. 6

From: Geller, Andrew
Sent: Friday, August 24, 2018 3:52 PM
To: Dalbey, Matthew <Dalbey.Matthew@epa.gov>; Tejada, Matthew <Tejada.Matthew@epa.gov>; Etzel, Ruth <Etzel.Ruth@epa.gov>; Lee, Charles <Lee.Charles@epa.gov>; Thomas, John V. <Thomas.John@epa.gov>; Firestone,

Michael <Firestone.Michael@epa.gov>; Cieniawski, Scott <cieniawski.scott@epa.gov>; Pelka, Amy E. <Pelka.Amy@epa.gov>
Cc: Slimak, Michael <Slimak.Michael@epa.gov>; Mazur, Sarah <Mazur.Sarah@epa.gov>; Chu, Karen <Chu.Karen@epa.gov>; McCullough, Melissa <Mccullough.Melissa@epa.gov>
Subject: SHC Strategic Research Action Plans (StRAP) for IntraAgency Review

ORD has sent its draft Strategic Research Action Plans out to EPA Program and Regional Offices for review. As you can see below, Bruce Rodan of ORD sent these to OLEM upper management.

OCR, OEJ, OCHP, and GLNPO have also been fully engaged with SHC in the development of its updated plan. Mike Slimak and I invite you to review the SHC StRAP. Bruce includes charge questions below; I have attached some additional questions for you to consider as well.

We invite you to share or delegate this review, including, as you deem appropriate, e.g., representatives of the Regional Sustainability Directors, Children's Health cordinators, or others. We do, however, ask you to restrict sharing the draft StRAP to individuals inside the EPA.

Our deadline for reviews by September 21, 2018.

If you share or delegate this review, we ask that you collate the reviews that you receive and then return them to us. It would also be helpful if you either cc us as you distribute the StRAP for review or simply share with us a list of who you have asked for review.

I hope to be able to send a brief, 8 page executive version of this StRAP early next week to help expedite review.

Many thanks for all you have already done to help us develop this StRAP,

Andrew Geller
Deputy National Program Director
Sustainable and Healthy Communities Research Program
ORD / EPA

From: Rodan, Bruce
Sent: Wednesday, August 22, 2018 6:22 PM

To: Breen, Barry <Breen.Barry@epa.gov>; Simon, Nigel <Simon.Nigel@epa.gov>
Cc: Slimak, Michael <Slimak.Michael@epa.gov>; Kryak, DavidD <Kryak.Davidd@epa.gov>; Fleming, Megan <Fleming.Megan@epa.gov>; Orme-Zavaleta, Jennifer <Orme-Zavaleta.Jennifer@epa.gov>; Robbins, Chris <Robbins.Chris@epa.gov>
Subject: ORD Strategic Research Action Plans (StRAP) for IntraAgency Review

Barry, Nigel,

Hi. Please find attached the draft Strategic Research Action Plans (StRAPs) for five of six of ORD's National Research Programs. As you are aware, over the last several months ORD's National Program Directors (NPDs) have worked diligently with your senior managers and staff to identify your priority areas of research for FY19 through FY22. With this note, ORD is requesting intraAgency review by you and your staff, focused on the Sustainable and Healthy Communities StRAP most relevant to your Office. We have included the other media-specific StRAPs and would be open to your comments on these, too. The Human Health and Risk Assessment (HHRA) StRAP is still under development and will be circulated when the draft is prepared. In order to meet peer review and implementation timetables, we are looking to a 30-day review period, with receipt of comments by Friday September 21.

To facilitate your review, we have developed proposed charge questions on which we would like you to focus:

1. Does the ORD Strategic Research Action Plan (StRAP) highlight the environmental challenges that you have identified as most important to your Program/Region? If not, please elaborate.
2. Which of the identified OLEM needs and research outputs that are of highest importance? Please identify those needs that are most immediate.
3. Please provide any further comments on the StRAP.
4. With the objective of providing the most useful research products, do you have recommendations on how you would like us to continue close ORD-Program/Regional coordination as the StRAPs are implemented into research products?

We are hoping for a single consolidated file of your Program's comments uploaded to a SharePoint library. To that end, please provide the name of a contact person who will upload comments (provide name to David Kryak (Kryak.Davidd@epa.gov) so we can give them the link and edit rights).
For questions on general or procedural matters, please feel free to contact me or David Kryak. For content-specific research issues, please contact the relevant National Program Director: A-E – Alan Vette; CSS – Jeff Frithsen; HSRP – Greg Sayles; SHC – Mike Slimak; and SSWR – Suzanne vanDrunick.
We look forward to meeting with you mid-September after you have had the opportunity to read the draft StRAP(s).

Thanks for your continued engagement in this research planning.

Bruce Rodan
Associate Director for Science
EPA Office of Research and Development

Message

From: Arielle Duhaime-Ross [arielle.duhaimeross@vice.com]
Sent: 9/26/2018 1:44:05 PM
To: retzel@ Ex. 6
CC: Etzel, Ruth [Etzel.Ruth@epa.gov]
Subject: Inquiry from HBO's VICE News Tonight - On-camera interview request

Hello Dr. Etzel,

I'm the climate and environment correspondent for VICE News Tonight, a Emmy award-winning nightly news TV show. I'm writing because I read the recent NYT piece that outlined how you were put on administrative leave, and I would love to speak with you on camera about that, and your experience at the EPA overall. Are you available for an interview for our TV show?

For reference, here's a piece we aired earlier this year with former EPA employees, including Mustafa Ali and Betsy Southerland. My hope is that this will give you an idea of the type of work that we do.

I'd be happy to discuss the possibility of an on-camera interview with you on the phone. My desk number is below. You can also text or call me on my cell at 917-603-1357.

I'm looking forward to hearing from you. Thank you,

ARIELLE DUHAIME-ROSS
Correspondent, VICE News Tonight
arielle.dr@vice.com | Desk: 917-893-5991
Watch my reporting on Youtube
@ADRs

VICE MEDIA LLC
49 South 2nd Street
Brooklyn, NY 11249

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Thank you.

Message

From: Berger, Martha [Berger.Martha@epa.gov]
Sent: 9/26/2018 12:11:12 PM
To: AO-OCHP-Everyone [AOOCHPEveryone@epa.gov]
Subject: Fwd: Dr. Ruth Etzel, OCHP Director

Martha

Martha Berger
Office of Children's Health Protection
US Environmental Protection Agency
202/230-4784

Begin forwarded message:

> **From:** Rebecca Bratspies <bratspies@mail.law.cuny.edu>
> **Date:** September 26, 2018 at 8:10:32 AM EDT
> **To:** "Morrissey, Barbara (DOH)" <Barbara.Morrissey@DOH.WA.GOV>
> **Cc:** Caroline Cox <caroline@ceh.org>, Deanna Scher <deanna.scher@state.mn.us>, Ellen Braff-Guajardo <ebraff-guajardo@sierrahealth.org>, "Forman, Joel" <joel.forman@mssm.edu>, "Huerta-Montanez, Gredia" <Ex. 6>, "James R. Roberts" <robertsj@musc.edu>, Jose Cordero <jcordero@uga.edu>, Julie Froelicher <Froelicher.jm@pg.com>, Lori Byron <Ex. 6> "Lowry, Jennifer" <jlowry@cmh.edu>, Maeve Howett <mhowett@umass.edu>, Mark Miller <Ex. 6>, Maureen Little <mlittle@health.nyc.gov>, Olga Naidenko <olga@ewg.org>, "Ornella, Greg" <gregory.a.ornella@sherwin.com>, Pinar Kodaman <pinar.kodaman@yale.edu>, Rubin Patterson <rubin.patterson@howard.edu>, Steve Owens Ex. 6 Tom Neltner <tneltner@edf.org>, "Hackel, Angela" <Hackel.Angela@epa.gov>, "Berger, Martha (Berger.Martha@epa.gov)" <Berger.Martha@epa.gov>, "Foos, Brenda (Foos.Brenda@epa.gov)" <Foos.Brenda@epa.gov>
> **Subject: Re: Dr. Ruth Etzel, OCHP Director**
>
> This is terrible news. The country and its children are poorer and more vulnerable today than they were with Ruth in charge. Please keep us posted of any developments
>
> Rebecca Bratspies
> Professor of Law
> Director, CUNY Center for
> Urban Environmental Reform
>
> On Sep 25, 2018, at 7:52 PM, Morrissey, Barbara (DOH) <Barbara.Morrissey@DOH.WA.GOV> wrote:
>
>> Dear CHPAC,
>>
>> I just learned that Dr. Ruth Etzel, OCHP director, was removed from her official duties at EPA this afternoon and had to turn in her badge, keys, and cell phone. She was told it was not a disciplinary action and was placed on administrative leave. I have not spoken to Ruth directly or staff in the OCHP office nor do I know whether there are other actions underway to reduce or eliminate the Office of Children's Health Protection at EPA.

Ruth has been a strong national leader and voice for children's environmental health for her entire career. The book she edits for AAP on Pediatric Environmental Health has been the "go-to" guide on children's environmental health for physicians, public health, and policy-makers for the past 2 decades. As the OCHP director, she has been tapping her great expertise and passion to ensure that children are protected in the agency's environmental regulations and properly included in the agency's research and outreach programs. She has been a critical leader in development of the national lead strategy. The OCHP office also helps develop and track indicators of children's environmental exposures and is critical in supporting the NIEHS/EPA Children's Environmental Health and Disease Prevention Research Centers and the PEHSUs.

If you receive calls from the media specifically for a CHPAC perspective, please forward them to me. I hope to be able to speak out strongly in defense of Ruth and the OCHP office as the CHPAC chair. I hope you all have opportunities to express your strong support for this small but mighty office at EPA. They have accomplished much in the last 20 years but have important work ahead. If you have talking points you would like me to consider when representing the CHPAC, please forward them to me.

I foresee that this development may affect the planned CHPAC meeting in October. Please be patient while we wait for the office to digest the news and make decisions.

Barbara Morrissey, Toxicologist
Office of Environmental Public Health Sciences
Washington State Department of Health
barbara.morrissey@doh.wa.gov
360-236-3368 | www.doh.wa.gov

<image002.png><image004.png><image006.png><image008.png><image010.png>

After work I can be reached at Ex. 6

Message

From: stevenmmarcusmd@Ex. 6 stevenmmarcusmd@Ex. 6
Sent: 9/25/2018 11:18:04 PM
To: Lowry, Jennifer [jlowry@cmh.edu]; Adam Spanier [aspanier@peds.umaryland.edu]; Alan Woolf [alan.woolf@childrens.harvard.edu]; Aparna Bole [aparna.bole@UHhospitals.org]; Ari Bernstein [Aaron.Bernstein@childrens.harvard.edu]; Carl Baum [carl.baum@yale.edu]; Diane Hindman [diane.hindman@gmail.com]; Lori Byron [lori.byron@Ex. 6]; Paul Spire [pspire@aap.org]; Phil Landrigan [phil.landrigan@bc.edu]; Samantha Ahdoot [atkinssam@Ex. 6]; Susan Pacheco [Susan.E.Pacheco@uth.tmc.edu]; John.Balbus@nih.gov; Mary Ellen Mortensen (CDC) [zeo4@cdc.gov]; Mary Ward [wardm@mail.nih.gov]; Nate DeNicola (ACOG) [ndenicola@Ex. 6]; Etzel, Ruth [Etzel.Ruth@epa.gov]; Villafranco, Natalie [villafra@bcm.edu]
CC: 'Bernardi, Cassandra' [CBernardi@aap.org]; Jerry Paulson [jerry@envirohealthdoctor.com]; Paul Wax [paul.wax@me.com]; 'Carrie Dickenson' [carrie.dickenson@acmt.net]
Subject: Re: Office of Children's Health Protection

Wow, what on earth happened? I am at an off site EPA meeting tomorrow. Not sure if I can corner anyone for information.

Steven

Sent from my T-Mobile 4G LTE device

------ Original message------
From: Lowry, Jennifer
Date: Tue, Sep 25, 2018 18:48
To: Adam Spanier;Alan Woolf;Aparna Bole;Ari Bernstein;Carl Baum;Diane Hindman;Lori Byron;Paul Spire;Phil Landrigan;Samantha Ahdoot;Steve Marcus;Susan Pacheco;John Balbus (NIEHS);Mary Ellen Mortensen (CDC);Mary Ward;Nate DeNicola (ACOG);Ruth Etzel (EPA);Villafranco, Natalie;
Cc: 'Bernardi, Cassandra';Jerry Paulson;Paul Wax;'Carrie Dickenson';
Subject: Office of Children's Health Protection

Hello,

By now you may have heard the terrible news that Ruth Etzel has been placed on administrative leave from the EPA. AAP staff are gathering additional details of what this means for the Office of Children's Health Protection and developing a plan of action. We will keep you posted on next steps that we, with your help, will be taking. However, please know that you can and should MAKE NOISE on your own to make sure that everyone knows that pediatricians and families need the programs in our government dedicated to the health of children.

I will let you know more when we have additional information.

Thank you,

Jennifer

Jennifer A. Lowry, MD | Pediatrician, Toxicologist and Pharmacologist

Director / Division of Clinical Pharmacology, Toxicology and Therapeutic Innovations

Director/ Mid-America Pediatric Environmental Health Specialty Unit

Children's Mercy Kansas City

Professor of Pediatrics

UMKC School of Medicine

P: (816) 234-3059 | F: (816) 302-9943

E: jlowry@cmh.edu | W: childrensmercy.org

2401 Gillham Road | Kansas City, MO 64108

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Message

From: Firestone, Michael [Firestone.Michael@epa.gov]
Sent: 9/25/2018 6:00:35 PM
To: Etzel, Ruth [Etzel.Ruth@epa.gov]
Subject: Latest versions of strategy and related materials
Attachments: 8-30-18 Summary version of the Draft Federal Lead Strategy.docx; 8-31-2018 Draft FLS.docx; 08-31-18 Status of Federal Lead Strategy.pptx; FLS Comment Matrix OCHP update 09-04-18.xlsx; 08-21-18 Response to LRM Comments Master Sheet.xlsx; 08-22-18 Status of Federal Lead Strategy EPA HUD HHS.pptx

Latest files

FYI – The attachments include:

Longer version of the Federal Lead Strategy (FLS) (283KB)

Shorter "summary" version of FLS (222KB)

Latest and most complete PP slide presentation (EPA-centric) (08-31-18 / 784 KB)

Older Lead Subcommittee version of the PP slides (08-22-18 / 752 KB)

Our edited version of Hayley's Response-To-Comments spreadsheet (09-04-18 / 116KB)

The OCHP RTC spreadsheet (08-21-18 / 50KB)

Michael P. Firestone, Ph.D., Acting Deputy Director
Office of Children's Health Protection (MC 1107T)
U.S. Environmental Protection Agency
Office: 202-564-2199
Cell: Ex. 6

Message

From: Firestone, Michael [Firestone.Michael@epa.gov]
Sent: 9/4/2018 7:55:30 PM
To: AO-OCHP-Everyone [AOOCHPEveryone@epa.gov]
Subject: FW: The Chalkboard: Children's Environmental Health Research Update

FYI

An ORD tool to increase internal EPA-wide dissemination of information to its partners.

Michael P. Firestone, Ph.D., Acting Deputy Director
Office of Children's Health Protection (MC 1107T)
U.S. Environmental Protection Agency
Office: 202-564-2199
Cell: Ex. 6

From: U.S. Environmental Protection Agency [mailto:usaepa@service.govdelivery.com]
Sent: Tuesday, September 04, 2018 1:27 PM
To: Firestone, Michael <Firestone.Michael@epa.gov>
Subject: The Chalkboard: Children's Environmental Health Research Update

Children's Environmental Health Research Partner Alliance Coordination Team (CEH PACT)

The Chalkboard:

Children's Environmental Health Research Update

A place to learn about the Office of Research and Development's Children's Environmental Health Research

About The Chalkboard - What Do You Think?

We are trying something new! We created The Chalkboard to help keep you informed and up-to-date on the latest Office of Research and Development children's environmental health related research, upcoming Children's Environmental Health Research Partner Alliance Coordination Team presentations, and events of interest. Let us know what you think by sending us your comments via this webform!

Recent Children's Environmental Health Research Publications

Office of Research and Development (ORD):

- Suspect Screening Analysis of Chemicals in Consumer Products
- Application of the Human Well-Being Index to Sensitive Population Divisions: A Children's Well-Being Index Development
- Developmental Thyroid Hormone Insufficiency Induces Cortical Brain Malformation and Learning Impairments: A Cross-Fostering Study
- Mixed "Antiandrogenic" Chemicals at Low Individual Doses Produce Reproductive Tract Malformations in the Male Rat

EPA/NIEHS Children's Environmental Health & Disease Prevention Research Centers:

- Children's residential exposure to organophosphate ester flame retardants and plasticizers: Investigating exposure pathways in the TESIE study
- Meta-Analysis of Maternal and Fetal Transcriptomic Data Elucidates the Role of Adaptive and Innate Immunity in Preterm Birth

---

Upcoming CEH PACT Presentations

Join us on the first Wednesday of every month at 11am EDT
Adobe Connect webinar

September 2018:

1. (National Exposure Research Laboratory) Dimitri Panagopoulos - Children's Soil and Dust Ingestion
2. (Region 3) Prentiss Ward - Mid-Atlantic Center for Children's Health and the Environment (MACCHE) Updates and Activities
3. ORD Strategic Research Action Plan (StRAP) Review - Open Discussion

---

Upcoming Conferences

NIEHS/EPA Children's Environmental Health Centers Meeting - October 22-23, 2018

Location: NIEHS, Rodbell Auditorium - Durham, NC

- *Meeting agenda is pending; more information will be made available under "Funding and Events" here: http://bit.ly/cehc2018*

FutureTox IV: Predictive Toxicology for Healthy Children - November 14-16, 2018

Location: The Westin Crystal City, VA

- *Abstract Submission is now open (closes September 26th).*

About the Children's Environmental Health Research Partner Alliance Coordination Team

The ORD led Children's Environmental Health Research Partner Alliance Coordination Team serves to: facilitate cross-ORD implementation of CEH research, enhance communication about CEH research among EPA researchers, partners and stakeholders, and serve as a resource to EPA leadership on CEH-related research.

Visit our CEH Research Intranet site.

If you have any questions about the research update, please contact Jill Franzosa at franzosa.jill@epa.gov or Jennifer Cashdollar at cashdollar.jennifer@epa.gov

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Message

From: Firestone, Michael [Firestone.Michael@epa.gov]
Sent: 9/4/2018 7:42:13 PM
To: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
CC: Hughes, Hayley [hughes.hayley@epa.gov]; Etzel, Ruth [Etzel.Ruth@epa.gov]; Hackel, Angela [Hackel.Angela@epa.gov]; Shah, Manthan [shah.manthan@epa.gov]
Subject: RE: Complete set of agency review comments
Attachments: FLS Comment Matrix OCHP update 09-04-18.xlsx; 08-31-18 Status of Federal Lead Strategy.pptx

Helena,

Please see the attached revised spreadsheet updated in response to your request last week.

The blue-shaded rows represent OCHP responses to the parts of the matrix that were highlighted in yellow.

The tan-shaded rows represent comments from agencies not originally included by Haley. (Thanks to Manthan for adding these comments and responses that we had included in our spreadsheet.)

The green-shaded rows at the end of the spreadsheet represent changes included in the August 31 version of the Strategy since Hayley based her spreadsheet on the mid-July version of the draft Strategy that OCHP subsequently updated.

I also attached draft briefing slides with a new slide # 11 re: which agencies provided comments or reviewed but did not submit comments.

Thanks.

Michael P. Firestone, Ph.D., Acting Deputy Director
Office of Children's Health Protection (MC 1107T)
U.S. Environmental Protection Agency
Office: 202-564-2199
Cell: Ex. 6

From: Wooden-Aguilar, Helena
Sent: Thursday, August 30, 2018 8:13 PM
To: Firestone, Michael <Firestone.Michael@epa.gov>
Cc: Hughes, Hayley <hughes.hayley@epa.gov>; Etzel, Ruth <Etzel.Ruth@epa.gov>; Hackel, Angela <Hackel.Angela@epa.gov>; Shah, Manthan <shah.manthan@epa.gov>
Subject: Re: Complete set of agency review comments

Thank you for providing this list and for today's discussion. Please ensure that all comments and proposed edits/language is captured in the comment matrix I shared earlier in the week. Please submit a revised version by Tuesday COB.

I will circle back with folks regarding a pre-brief on Tuesday.

Helena

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)

Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

On Aug 30, 2018, at 4:15 PM, Firestone, Michael <Firestone.Michael@epa.gov> wrote:

Hayley

Here is a list of agencies who prepared the attached comments sent to us through OMB:

CEA
DOL
OMB (OIRA)
DOL
DOJ
EPA: OW, OLEM, OCSPP, ORD, OP, OCIR
OMB Environment Branch (Disclaimer language here)
OMB Health Division
HHS
HUD
OMB Housing Branch

"No comments" came from these agencies:
OSTP
Education
DOT
DHS

Michael P. Firestone, Ph.D., Acting Deputy Director
Office of Children's Health Protection (MC 1107T)
U.S. Environmental Protection Agency
Office: 202-564-2199
Cell: Ex. 6

From: Rosenfield, Eric J. EOP/OMB [mailto:Eric_J_Rosenfield@omb.eop.gov]
Sent: Wednesday, June 06, 2018 10:08 AM
To: Firestone, Michael <Firestone.Michael@epa.gov>
Cc: warren.friedman@hud.gov
Subject: RE: Complete set of agency review comments

Sure. Hate to send them as a bunch of attachments, but unfortunately do not have the time this morning to put them into a single document and I wanted to get it out as soon as possible.

But if you're finding this too uneasy to work with, I can compile comments later in the afternoon. Just let me know.

- Eric

From: Firestone, Michael <Firestone.Michael@epa.gov>
Sent: Wednesday, June 6, 2018 7:01 AM

To: Rosenfield, Eric J. EOP/OMB <Eric_J_Rosenfield@omb.eop.gov>
Cc: warren.friedman@hud.gov
Subject: Complete set of agency review comments

Eric,

Could you please send a complete set of all comments OMB received through the LRM process to Warren?

Thanks

Michael P. Firestone, Ph.D., Acting Deputy Director
Office of Children's Health Protection (MC 1107T)
U.S. Environmental Protection Agency
Office: 202-564-2199
Cell Ex. 6 .

<PTF Federal Lead Strategy Draft LRM Review Sheet_CEA.DOCX>

<PTF Lead Strategy - OMB Comments 5.14.18_.docx>

<DOL edit - PTF Draft Federal Lead Strategy LRM.PDF>

<LPS-#263790-v1-LPS-#263755-v1-PTF_Federal_Lead_Strategy_Draft_LRM_Review....docx>

<Federal Lead Strategy_OW Comments.docx>

<PTF Federal Lead Strategy Draft LRM Review Sheet OLEM.DOCX>

<PTF Federal Lead Strategy Draft LRM Review Sheet OCSPP 05.16.18.docx>

<PTF Federal Lead Strategy Draft LRM Review Sheet ORD.DOCX>

<PTF Federal Lead Strategy Draft LRM Review Sheet OP.DOCX>

<PTF Federal Lead Strategy Draft LRM Review Sheet OCIR.DOCX>

<LRM Comments from OMB Environment Branch.docx>

<PTF Federal Lead Strategy Draft LRM Review Sheet.docx>

<Final All HHS Comments 5.18.18 (2).docx>

<PTF Federal Lead Strategy HUD Comments.docx>

<PTF Federal Lead Strategy Draft LRM Review Sheet_Housing Branch.docx>

Message

From: Basden, Phyllis [Basden.PhyllisC@epa.gov]
Sent: 10/10/2018 2:25:56 PM
To: Dzubow, Rebecca [Dzubow.Rebecca@epa.gov]; AO-OCHP-Everyone [AOOCHPEveryone@epa.gov]
Subject: RE: Senators Demand Full Transparency on EPA's Plans for Children's Health Office

Thanks Rebecca ☺

From: Dzubow, Rebecca
Sent: Monday, October 08, 2018 4:56 PM
To: AO-OCHP-Everyone <AOOCHPEveryone@epa.gov>
Subject: Senators Demand Full Transparency on EPA's Plans for Children's Health Office

OCTOBER 05, 2018

Senators Demand Full Transparency on EPA's Plans for Children's Health Office

After director of children's health office was abruptly put on leave, Senate Appropriators Udall, Reed, Merkley, Durbin, Murray send letter demanding answers about future of EPA's mission of protecting children's health

WASHINGTON - U.S. Senators Tom Udall (D-N.M.), Jack Reed (D-R.I.), Jeff Merkley (D-Ore.), Dick Durbin (D-Ill.), and Patty Murray (D-Wash.)wrote to Environmental Protection Agency (EPA) Acting Administrator Andrew Wheeler expressing their strong concern over the future of the EPA's Office of Children's Health Protection (OCHP) and the EPA's mission to safeguard the health of America's youth in light of recent reports. The letter follows EPA's unexplained placement of the OCHP Director, Dr. Ruth Etzel, on administrative leave and widespread stakeholder concerns about the future of the office and its mission to ensure children's health is a priority in EPA decisions.

Udall is ranking member of the Senate Appropriations subcommittee overseeing EPA's budget and Reed, Merkley, Durbin and Murray are all members of the Senate Appropriations Committee.

"We recognize the important role that EPA's Office of Children's Health Protection plays as one of the only offices that addresses the impact of EPA regulations and policies on the health of America's infants, children, and young adults," **the senators wrote to Wheeler**. "Infants and children are uniquely vulnerable to environmental contaminants and face disproportionate exposure to environmental factors that negatively affect health."

"We are concerned about the future of this office and ensuring that all EPA actions and programs continue to address the unique vulnerabilities of children, " **the senators continued.** "We expect that any proposed changes to the OCHP would not be initiated or implemented without the required approval from the Appropriations Committee."

In the letter, the senators sought answers to six important questions about the future of the office, along with an explanation of the personnel action taken against Dr. Etzel, and personal assurance from Wheeler that all EPA policies, actions, and programs will continue to protect the unique vulnerabilities of children. They seek direct responses about the EPA's long-term plans for the Office of Children's Health Protection (OCHP) and funding and resource allocations by October 18, 2018.

The full text of the letter is available below and here.

Dear Acting Administrator Wheeler:

As strong supporters of prioritizing children's health, we are concerned by recent reports about the Environmental Protection Agency's plans for the Office of Children's Health Protection, which is critical to protecting the health of America's infants, children, and young adults from environmental risks. We write to express our strong support of the EPA's Office of Children's Health Protection, and remain concerned regarding the protection of children's health by the EPA. Many stakeholders are concerned about the future of this office and EPA's mission regarding children's health, after EPA's recent decision that the Director of EPA's Office of Children's Health Protection has been put on administrative leave. We also are alarmed about the negative impacts that this abrupt move could have on protecting the health of America's children and request additional information about the future of EPA's Office of Children's Health Protection (OCHP).

We recognize the important role that EPA's Office of Children's Health Protection plays as one of the only offices that addresses the impact of EPA regulations and policies on the health of America's infants, children, and young adults. Infants and children are uniquely vulnerable to environmental contaminants and face disproportionate exposure to environmental factors that negatively affect health. The OCHP, an office established over 20 years ago, is an incredibly important office dedicated to protecting America's children from environmental health risks. We are concerned about the future of this office and ensuring that all EPA actions and programs continue to address the unique vulnerabilities of children.

As a reminder, the Explanatory Statement for the Consolidated Appropriations Act, 2018 (P.L. 115-141) continues longstanding General Guidelines for Reprogramming that require agencies funded by the Department of the Interior, Environment and Related Agencies

subcommittee to submit reorganization proposals for Committee review prior to implementation, including reorganizations of significant national importance and organizations that include any closures, transfers of functions, and consolidations. We expect that any proposed changes to the OCHP would not be initiated or implemented without the required approval from the Appropriations Committee.

In order to address these concerns, we seek responses to the following questions about EPA's decisions to continue to prioritize protecting children's health.

1.What are EPA's long-term plans for the Office of Children's Health Protection?

2.Have there been discussions about reorganizing the Office of Children's Health Protection? If so, why?

3.Are there any plans to reorganize the Office of Children's Health Protection? If so, what are those plans?

4.Are there plans to reduce funding or shift resources related to the staff, authorities and work of the Office of Children's Health Protection?

5.How do you address proposed rules and regulations that are in conflict with concerns raised by the Office of Children's Health Protection?

6.What is the plan for permanently filling the role of Director at EPA's Office of Children's Health Protection?

In addition, we request a full and complete explanation of the facts and purposes behind the personnel action taken against Dr. Etzel, the Director of OCHP, in order to assure Congress and the public that the leadership of this office is being handled appropriately, and according to the laws and agency procedures governing career civil service protections.

We urge the EPA to continue the work of the Office of Children's Health Protection to ensure that EPA's regulations and policies adequately protect the public health of America's infants, children, and young adults. In addition, we request that EPA answer these questions for Congress and the public as soon as possible, and no later than October 18, 2018.

Sincerely

https://www.tomudall.senate.gov/news/press-releases/senators-demand-full-transparency-on-epas-plans-for-childrens-health-office

~~~~~~

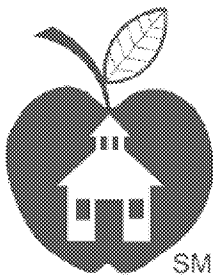
Rebecca C. Dzubow, MPH, MEM
Health Scientist
U.S. EPA Office of Children's Health Protection | Regulatory Support and Science Policy Division
1200 Pennsylvania Avenue, NW (1107T) | Washington, DC 20460
~~~~~~

(202) 564-0967

Message

From: no-reply@vrmailer3.com [no-reply@vrmailer3.com]
on behalf of info@healthyschools.org [info@healthyschools.org]
Sent: 10/8/2018 5:53:18 PM
To: Etzel, Ruth [Etzel.Ruth@epa.gov]
Subject: NewsSlice: Bad Move for EPA

View Online



NewsSlice

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October 5, 2018

A Bad Move That Could End Up Exposing Kids to Chemicals

OPINION - Without explaining why, the E.P.A. has sidelined its top children's health advocate.Last week, the leadership of the Environmental Protection Agency took aim at its own Office of Children's Health Protection by placing its director, Dr. Ruth Etzel, a distinguished pediatrician and epidemiologist, on "administrative leave." At first glance, the action might look like mere bureaucratic shuffling, though the agency, while saying she was not facing disciplinary action, offered no explanation for the move. (New York Times)

HS Network comment: EPA's Office of Children's Health Protection (OCHP) is the only such office among all federal agencies. It's Director co-chairs a federal inter-agency group on risks to children's health. The tiny office is not regulatory; in fact, in addition to outreach and advising EPA offices on how proposed regulations may impact children, it supports research and training on children's environmental health, all with about half the resources that the office had a few years ago. Sidelining its well-qualified Director - without explanation - sends the powerful message that this Administration is not interested in children. We urge EPA to ensure this federally unique office has a highly qualified director and that it becomes an even more robust presence for children.

ERRATA: We wish to call out a tiny error in the otherwise terrific OpED, above. Through its regional staff, EPA's kids' office often assisted schools and school communities with a variety of questions on school environments. Some of its grants went to state agencies to help states spur work on school environments. EPA's Indoor Environments Division and other expert program

offices worked with teachers, administrators, nurses and boards on IAQ and related issues such as IPM and Molds with grants, webinars, and technical assistance.

Leaky Roofs, Lead in the Water, Fire Risk: Baltimore Schools Face Nearly $3 Billion Maintenance Backlog

MARYLAND - Federal Hill Preparatory Principal Sara Long says she's grateful that when her school's 43-year-old roof leaks, the damage is mostly in the stairwells and hallways. If there's heavy rain and wind, tiles fall down. Big puddles form. Bits of the auditorium ceiling crumble to the floor. Her concern, she says, is the day when "suddenly it's happening in a classroom." As the lack of air conditioning in many Baltimore public schools garnered recent media attention and finger-pointing from the governor and others, the school system's other maintenance needs — which affect teachers and students year-round — generate less outrage. (Baltimore Sun)

More Eiland Middle School Students Become Sick, Investigation Continues

MISSOURI - Four students and a teacher leave Eiland Middle School on Thursday morning, becoming the latest victims of an unknown sickness at the school. Louisville Municipal School District Superintendent Randy Grierson says Atmos Energy has confirmed there is no gas leak and no evidence of carbon monoxide inside the building. 10-20 students have fallen ill at the school this week, at least two of the kids were taken to the University of Mississippi Medical Center in Jackson. Grierson says those students did have some pre-existing conditions. (WCBI)

Greencastle School Set to Re-open Monday After Mold Issue

INDIANA - A Greencastle school is almost safe for students after a mold issue forced the building to close for more than a month. In a letter to parents, the superintendent said Tzouanakis Intermediate School will re-open on Monday. The letter said the air in all classrooms has been tested and ruled safe. The air quality will continue to be monitored in the building. (rtv6 ABC)

Utah Wildfires Increase Challenges for Local School Sport Scene

UTAH - A pair of wildfires in Utah County that forced hundreds of families to evacuate their homes and created poor air quality has thrown a major wrench in the local high school sport season. Salem Hills chemistry teacher, athletic director and girls soccer coach Lee Gillie saw the challenges on multiple levels. Not only did he see his students and players facing extremely poor air quality and not knowing where the fire would end up, he personally had to evacuate from his home in Elk Ridge. (Daily Herald)

These Richland County Schools Have Sewage in Their Yards. What's Being Done About it?

SOUTH CAROLINA - The faint smell of human waste wafted near the Gadsden Elementary School playground early Friday morning, dampened slightly by the last night's rain. A chain-link fence wraps around a pond maybe 20 or 30 yards from where children take their recess. That's the pond the school's sewage flushes into, where fecal matter sits below the water. Chemicals are added to the water to break down the waste and help kill the odor. At Hopkins Middle School, 7 miles away, an identical pond sits beside the school's tennis courts. Hopkins Elementary School has a poop pond too. (The State)

Mental Health Education Now Required In New York Schools

NEW YORK - New York is the first state to require mental health education in all grades.

kids raising their hands in a classroom This fall, New York schools became the first in the U.S. to teach mandatory mental health education to students of all ages. “All schools” across New York state are now required to teach mental health literacy in health class in elementary school, middle school, and high school. (The Fix)

Ethan Reich, 6, is one of dozens of students who got tested for lead in June 2018 as part of the Freehold Borough Schools' lead screening initiative.
(Photo: Courtesy of Rocco Tomazic)

This NJ School District Plans to Test All of its Students for Lead

NEW JERSEY - Freehold Borough's school district plans to screen all of its students for lead exposure this year, expanding a program the district and the local health officers started with children up to age 6. Superintendent Rocco Tomazic said Monday night that the K-8 school district and the Freehold Township Health Department plan to expand the program after a local coalition called Neighborhood Connections to Health was offered funding from the Nicholson Foundation, a Newark-based nonprofit. Health officials say there is no "safe" level of lead. Prolonged exposure can cause long-lasting physical and mental damage to a child. (app.com)

Detroit Students Strike for Safe Water on Count Day

MICHIGAN - Two dozen students gathered in a Midtown common room instead of attending classes Wednesday — Michigan's fall Count Day — to demand safe drinking water throughout the Detroit Public Schools Community District. The students gathered at Cass Corridor Commons for classes on the impact of lead and copper poisoning, how to test water at home, natural remedies and a history of student activism. The #DoWeCount strike demanded city-wide water testing, support for wraparound services for those with poisoning and the attention of officials to act now. (The Detroit News)

San Joaquin County Finds Harmful Levels of Dangerous Chemical in Middle School's

Water

CALIFORNIA - The Lodi Unified School District is now considering ways to deliver clean and safe water to Henderson Middle School after a cancer-causing chemical was found in the drinking water. A test in February by the San Joaquin County Environmental Health Department found harmful levels of 1,2,3-trichloropropane. But a subsequent test in May found dangerous levels in well water used on campus. (FOX 40)

School Investigating After Hazel Park Students Complain About Moldy Food

MICHIGAN - Hazel Park High School students are frustrated after some shared photos of mold in the food at the school. "People need to start looking at expiration dates. People need to start checking the food itself. You can clearly tell there's mold on here," Hazel Park senior Sabrina Johnson said. Hazel Park superintendent Dr. Amy Kruppe is also disgusted by the photos of moldy food. (Click On Detroit)

De Blasio Calls Moldy Food Found In NYC Schools 'Unacceptable'

NEW YORK CITY - Mayor Bill de Blasio calls a disgusting discovery uncovered by CBS2 in New York City school cafeterias "unacceptable." Earlier this week, CBS2 exposed moldy bread that turned up in city schools because of a contract change that cut bread deliveries from daily to twice a week. CBS2 Political Reporter Marcia Kramer asked the mayor about the bad bread, and reports that the city is paying more than it should. "Our children need the best available food, and certainly not moldy bread," de Blasio said on Wednesday. "Everything related to school food is now being reassessed." (CBS 2)

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Have an upcoming event to include? Let us know, info@healthyschools.org

Archived Webinars / Presentations

Collaborative for High Performance Schools (CHPS), "From Research to Action: Evidence-Based Design for Healthy School Buildings", May 3, 2018, (register free to watch)

Lead in Drinking Water with Dr. Jerome Paulson

Towards Healthy Schools: Reducing Risks to Children with Claire Barnett

Rights of Children with Disabilities in Public Charter Schools: U.S Department of Education Office of Special Education and Rehabilitative Services Webinar

U.S. Environmental Protection Agency's Indoor Air Quality Master Class Webinar Series
Healthy Schools Network note- view the webinars and earn certificates

Upcoming Events

What was Old is New Again: A Home Visit Model Using Integrated Health Navigation for Children with Asthma
PEHSU Webinar, Wednesday, October 10, 2018, 1:00pm EDT
We invite you to attend the PEHSU Program Grand Rounds Webinar. Everyone is invited to participate in this live webinar and phone-based event. This in-depth and interactive series provides a platform for learning and discussion about issues that focus on current and emerging aspects of pediatric and reproductive environmental health.

Children's Environmental Health Day 2018
Thursday, October 11th
The Children's Environmental Health Network established CEH Day in 2016 as a day of raising awareness about children's environmental health issues, a day of taking action to stand up for children, and a day of community and connection. As a means to foster the children's environmental health movement and a strong network of advocates, CEHN has spearheaded the establishment of Children's Environmental Health Day (CEH Day), we invite you to join us in the Movement to Take Action for Children!

Flint, MI. The City of Flint and HS Network are cohosting a workshop on October 11th in Flint on HealthyChildren/HealthySchools, focused on lead and other toxics common in schools.

The International Lead Poisoning Prevention Week of Action
October 21-27 2018
With particular focus on eliminating lead paint in all countries by 2020. Lead poisoning is preventable, yet according to the Institute for Health Metrics and Evaluation estimates for 2016, lead exposure accounted for 540 000 deaths and 13.9 million years lost to disability and death due to the long-term health effects, with the highest burden being in developing regions. Of particular concern is the role lead exposure plays in the development of intellectual disability in children. Even though this problem is widely recognized, with many countries already having taken action, exposure to lead, particularly during childhood, remains a key concern of healthcare providers and public health officials worldwide.

APHA's 2018 Annual Meeting and Expo

San Diego Convention Center, 111 W Harbor Dr. San Diego, CA 92101
November 10 - 14
Theme: "Creating the Healthiest Nation: Health Equity Now"
APHA's Annual Meeting and Expo is the largest annual gathering of public health professionals. More than 12,000 people attend, and thousands of new abstracts are presented each year, making APHA 2018 the most influential meeting in public health.

Prepare for the meeting by learning specific information for presenters and attendees. *See the program at a glance*. HS Network, with CDC, EPA, and the Learning Disabilities Association and the Children's Environmental Health Network, will present a panel on Eliminating Lead in Schools and Child Care on Monday afternoon, Nov. 12, at 3 PM. For a short list of presentations of interest to healthy schools advocates, contact Healthy Schools Network.

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Appointment

From: Gessner, Lauren [gessner.lauren@epa.gov]
Sent: 10/3/2018 1:52:01 PM
To: Cascio, Wayne [Cascio.Wayne@epa.gov]; Firestone, Michael [Firestone.Michael@epa.gov]; Knudsen, Thomas [Knudsen.Thomas@epa.gov]; Louie, Nica [Louie.Nica@epa.gov]; Sacks, Jason [Sacks.Jason@epa.gov]; Rogers, John M. [Rogers.John@epa.gov]; Klieforth, Barbara [Klieforth.Barbara@epa.gov]; Raffaele, Kathleen [raffaele.kathleen@epa.gov]; Axelrad, Daniel [Axelrad.Daniel@epa.gov]; Ohanian, Edward [Ohanian.Edward@epa.gov]; Ramasamy, Santhini [Ramasamy.Santhini@epa.gov]; Ward, Prentiss [Ward.Prentiss@epa.gov]; Whitlock, Siobhan [Whitlock.Siobhan@epa.gov]; Keteles, Kristen [Keteles.Kristen@epa.gov]; Fenton, Kathleen [Fenton.Kathleen@epa.gov]; Menghrajani, jacquelyn [Menghrajani.Jacquelyn@epa.gov]; Aguilar, Marcus [Aguilar.Marcus@epa.gov]; Stewart, Gretchen [Stewart.Gretchen@epa.gov]; Bartels, Kimberly [Bartels.Kim@epa.gov]; Dye, Janice [Dye.Janice@epa.gov]; Miller, Colette [Miller.Colette@epa.gov]; Suero, Maryann [suero.maryann@epa.gov]; Bahadori, Tina [Bahadori.Tina@epa.gov]; Hubal, Elaine [Hubal.Elaine@epa.gov]; Geller, Andrew [Geller.Andrew@epa.gov]; Guiseppi-Elie, Annette [Guiseppi-Elie.Annette@epa.gov]; Gwinn, Maureen [gwinn.maureen@epa.gov]; Hahn, Intaek [hahn.intaek@epa.gov]; Hines, Ronald [Hines.Ronald@epa.gov]; Gibbons, Dayna [Gibbons.Dayna@epa.gov]; Foster, Stiven [Foster.Stiven@epa.gov]; Hines, Erin [Hines.Erin@epa.gov]; Gavett, Stephen [Gavett.Stephen@epa.gov]; Fry, Meridith [Fry.Meridith@epa.gov]; Dimas, Melissa [Dimas.Melissa@epa.gov]; Kodavanti, Urmila [Kodavanti.Urmila@epa.gov]; Tulve, Nicolle [Tulve.Nicolle@epa.gov]; Kenyon, Elaina [Kenyon.Elaina@epa.gov]; Cashdollar, Jennifer [Cashdollar.Jennifer@epa.gov]; Franzosa, Jill [Franzosa.Jill@epa.gov]; Cowden, John [Cowden.John@epa.gov]; Frithsen, Jeff [Frithsen.Jeff@epa.gov]; Hackel, Angela [Hackel.Angela@epa.gov]; Miller-Dykeman, Ashley [miller-dykeman.ashley@epa.gov]; Nachman, Rebecca [nachman.rebecca@epa.gov]; Coopwood, Theodore [Coopwood.Theodore@epa.gov]; Blair, Susanna [Blair.Susanna@epa.gov]; Fiedorczyk, Bryan [Fiedorczyk.Bryan@epa.gov]; Nagle, Kathleen [Nagle.Kathleen@epa.gov]; Schappelle, Seema [Schappelle.Seema@epa.gov]; Selzer, Paula [Selzer.Paula@epa.gov]
CC: Mazur, Sarah [Mazur.Sarah@epa.gov]; Belle, Kara [Belle.Kara@epa.gov]; Euling, Susan [Euling.Susan@epa.gov]; Figueroa, Zaida [Figueroa.Zaida@epa.gov]; Dzubow, Rebecca [Dzubow.Rebecca@epa.gov]; Schroeder, Kathleen [Schroeder.Kathleen@epa.gov]; Foos, Brenda [Foos.Brenda@epa.gov]; Yaquian-Luna, Jose [yaquian-luna.josea@epa.gov]; Carleton, Jim [Carleton.Jim@epa.gov]; Miller, Gregory [Miller.Gregory@epa.gov]; Berger, Martha [Berger.Martha@epa.gov]; Albano, Emily [Albano.Emily@epa.gov]; Kargbo, Marcia [Kargbo.Marcia@epa.gov]; Morgan, Marsha [morgan.marsha@epa.gov]; Tietge, Joe [Tietge.Joe@epa.gov]; Loughran, Michael [Loughran.Michael@epa.gov]; Nolt-Helms, Cynthia [Nolt-Helms.Cynthia@epa.gov]; AO-OCHP-Everyone [AOOCHPEveryone@epa.gov]

Subject: CEH PACT Meeting
Attachments: CHPACT 9-18 .pdf; CEH-PACT100318Final.pptx; OCHP PACT StRAP comments_Louie.pptx
Location: RTP - Room D349. Dial in number: Ex. 6 Access Code: Ex. 6
Ex. 6

Start: 10/3/2018 3:00:00 PM
End: 10/3/2018 4:00:00 PM
Show Time As: Tentative

Recurrence: Monthly
the first Wednesday of every 1 month(s) from 11:00 AM to 12:00 PM

Hello everyone,

For those in RTP, this month's meeting will be in D349

The Children's Environmental Health Partner Alliance Coordination Team meeting standard agenda will be:

1. **Roll Call – 5 min**

2. **ORD Science Update – 10 mins**
   - Elaina Kenyon (NHEERL) – Assessing the Impact of Scaling Factor Variability on Measures of Internal Dose in Pediatric Populations: A Case Study Using Bromodichloromethane (BDCM)

What is the children's environmental health issue that our research is addressing?

- Children, particularly neonates and infants, have known differences in enzyme protein expression and maturation that contribute to high variability in timing and extent of drug/chemical biotransformation enzyme expression and activity. A physiologically-based pharmacokinetic model provides a method to integrate enzyme ontogeny and physiological changes in early life to assess differences in pharmacokinetics across lifestages.

What did we learn?

- Higher enzyme expression variability (e.g., CYP2E1) during early childhood is reflected in greater variability in predicted PK outcomes in younger age groups, particularly for the oral exposure route during the neonatal period. Our findings demonstrate the importance of age-dependent scaling factor variation used for *in vitro* to *in vivo* extrapolation of biotransformation rates and makes a strong case for systematic inclusion of this consideration in risk analysis for pediatric populations whenever the necessary data are available.

When will we know more?

- Our manuscript has been accepted for publication in Toxicological Sciences and will be available on line within the next few months and in print about 3-4 months thereafter.

Provide citations to papers.

- Kenyon, E.M., Lipscomb, J.C., Pegram, R.A., George, B.J. and Hines, R.N. 2018. The Impact of Scaling Factor Variability on Risk Relevant Toxicokinetic Outcomes in Children: a case study using bromodichloromethane (BDCM). *Toxicological Sciences, in press.*

3. **Regional Science Update – 10 mins**
   - Prentiss Ward (R3) – Mid-Atlantic Center for Children's Health and the Environment (MACCHE) Activities and Updates

4. **Program Office Update – 10 mins**
   - Nica Louie (OCHP) – OCHP Comments on ORD StRAPs

5. **Administrative Updates – 5-10 min**
   - Open Floor for Regional Partner Comments on ORD StRAPs
   - Children's Health Month Announcements

i. **It's Children's Health Month!**

Throughout the country, the Agency hosts and participates in a number of activities and events to raise awareness about children's environmental health.

View this Children's Health Month Poster to see how many children's health-related tips you can follow in 31 days.

Check out this online booklet that highlights EPA's initiatives to protect children's health.

ii. **National Lead Poisoning Prevention Week - October 21-27, 2018**

Each year, National Lead Poisoning Prevention Week is a call to bring together individuals, organizations, industry, and state and local governments to help increase lead awareness to reduce childhood exposure to lead.

View steps you can take to reduce lead in drinking water.

- Upcoming Conferences

i. **3rd Annual Meeting - International Society for Developmental Origins of Health and Disease (DOHaD Society) - October 1-2, 2018**
Location
Location: Chapel Hill, NC - The Rizzo Center (Conference Hotel and Meeting Room site)
More information

ii. **Children's Health Protection Advisory Committee (CHPAC) – October 11-12, 2018**

Location: Holiday Inn Washington - Capitol 550 C Street, SW Washington, DC 20024
More information

iii. **NIEHS/EPA Children's Environmental Health Centers Meeting – October 22-23, 2018**
Location: NIEHS, Rodbell Auditorium – Durham, NC
Meeting agenda is pending, more information will be under "Funding and Events" here

iv. **Future Tox IV: Predictive Toxicology for Healthy Children – November 14-16, 2018**
Location: The Westin Crystal City, VA
More information

This information and more, such as new research, announcements, and resources are included in our new update, called The Chalkboard. *Let us know if you'd like to be added to the distribution list.*

2018			
January	**NHEERL –** Stephanie Deflorio-Barker *(Child environmental exposures to water and sand at the beach)*	**NCCT** – Tom Knudsen *(Predicting Developmental Toxicity with an Exposure-Based Biomarker in Embryonic Stem Cells)*	Lauren Gessner – *(Update to CEH Intranet Page)*

February	**NERL** - Jim Starr *(The role of chemicals and non-chemical modifiers in determining the bioaccessibility of sorbed organics)*	**NHEERL –** John M. Rogers *(Report out from the Federal Information Exchange on PFAS)*	
March	**NHEERL –** Tamara Tal *(Host-Associated Microbiota Modifies Chemical Toxicity)*	**NCCT –** Tom Knudsen *(Information about upcoming CEH conferences)*	
April	**NCEA –** Erin Hines *(Environmental Chemicals in Human Milk)*		
May	**NERL –** Nilla Barros *(Evaluating Stressors and Their Influences on Ecological Conditions and American Indian/Alaska Native Children's Health and Well-being)*	**Region 4 –** Siobhan Whitlock *(Region 4 Science Update: Environmental Exposures: Shaping the prenatal microbiome and infant health outcomes)*	**OCHP –** Michael Firestone *(Update on the Federal Lead Draft Strategy)*
June	**NCER/NCCT/NHEERL –** Klieforth/Knudsen/Hunter (*Organotypic Cell Models Center Progress Update*)	**Region 8 –** Kim Bartels and April Nowak *(Report out on National Green Schools Conference)*	
July		**Region 9 and 6 –** Jackie Menghrajani and Paula Selzer *(CEH border related issues and progress update from border region CEH grantees)*	**Region 6 –** Sala Senkayi *(Visualizing Interactions Between Datasets using Apps - Environmental Health Data (EHD) App*)
August	**StRAP Updates from NPDs –** Andrew Geller, Joe Tietge, Samantha Jones		
September	**NERL –** Dimitri Panagopoulos (*Soil and dust ingestion*)	ORD Strategic Research Action Plan (StRAP) Review - Open Discussion	Feedback on The Chalkboard
October	**NHEERL –** Elaina Kenyon (*Assessing the Impact of Scaling Factor Variability on Measures of Internal Dose in Pediatric Populations: A Case Study Using Bromodichloromethane (BDCM)*)	**Region 3** – Prentiss Ward *(MACCHE activities/updates)*	**OCHP** - Nica Louie *(OCHP comments on ORD StRAPs)*
November	**NHEERL –** Jenna Hartley *(EnviroAtlas Educational Materials) - Tentative*	**Region 5** – Maryann Suero	
December		**Region 7** – Emily Albano	

Check out our Intranet site for more CEH related information including past presentations, new research, upcoming conferences, and more!

Assessing the Impact of Scaling Factor Variability on Measures of Internal Dose in Pediatric Populations: A Case Study Using Bromodichloromethane (BDCM)

Elaina M. Kenyon, Ph.D.
ORD/NHEERL/ISTD/PB
10/3/18

Approach is applicable to multiple chemicals

What's it all about?

- Incorporation of *in vitro* derived biotransformation rates in pharmacokinetic modeling (IVIVE)
- Variability in IVIVE scaling factors (e.g., liver volume, microsomal protein (MPPGL), enzyme expression) gives rise to variability in *in vivo* biotransformation rates
- Scaling factors can vary uniquely across lifestages
- PBPK modeling provides a useful framework to integrate lifestage-specific physiology and biochemistry with realistic exposure scenarios to investigate influence of variability on measures of internal dose and biomarkers of exposure
- BDCM, a disinfection byproduct, as a case study chemical
  - Exposure across lifestages is nearly universal
  - Multi-route exposure of concern
  - Multiple measures of internal dose and exposure biomarkers

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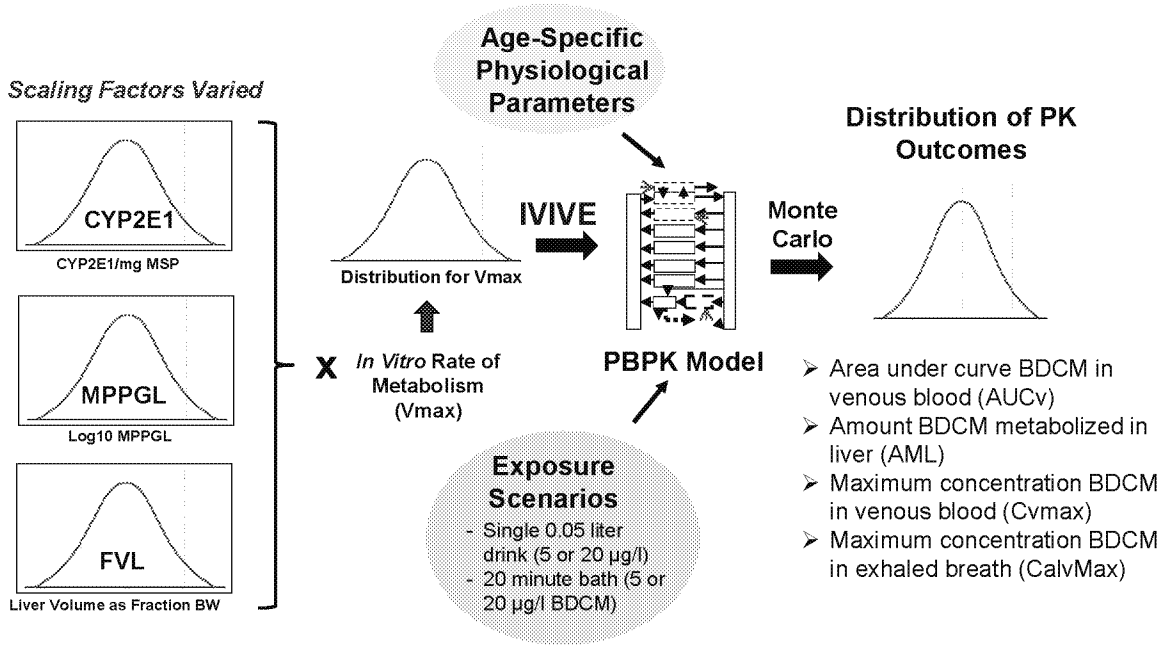
Methodology Overview



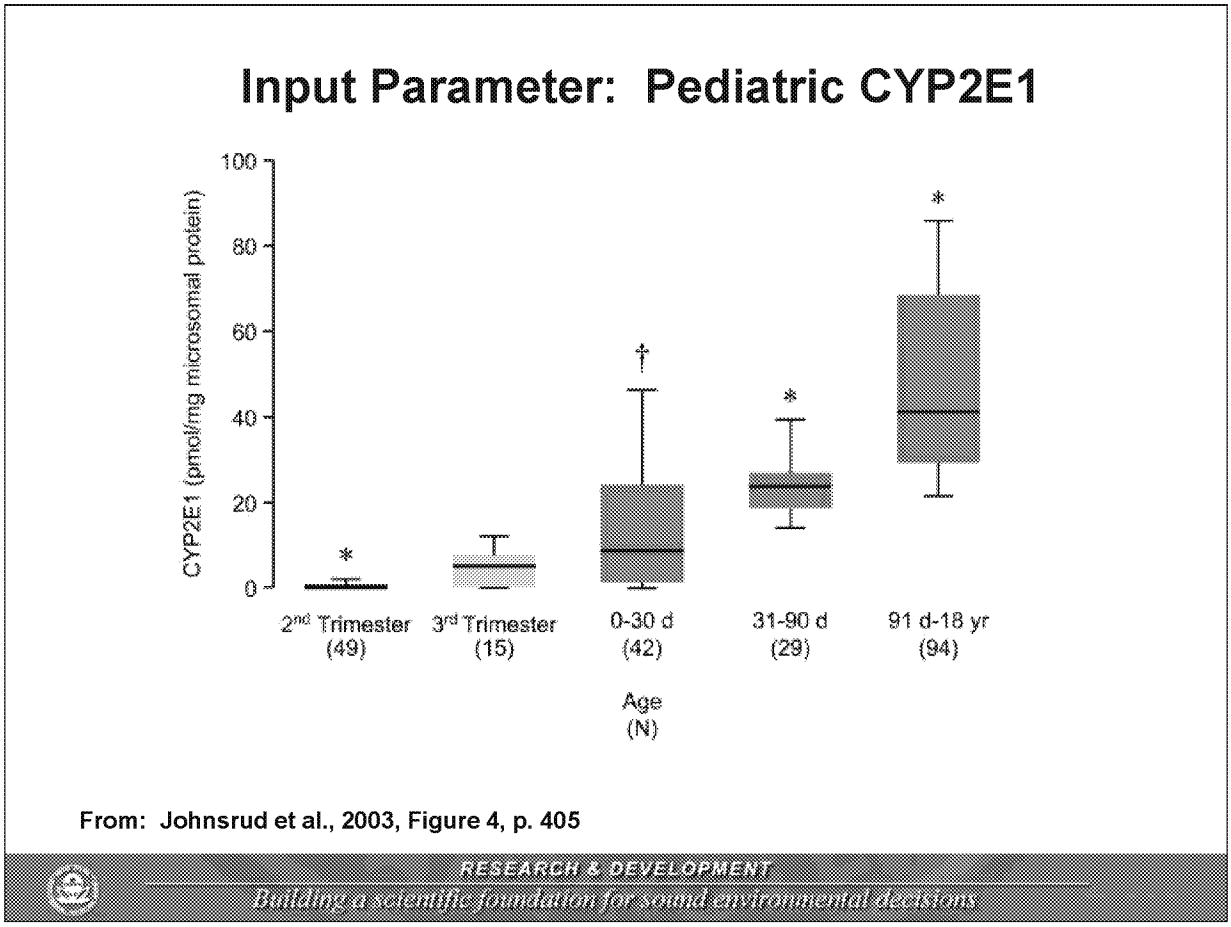
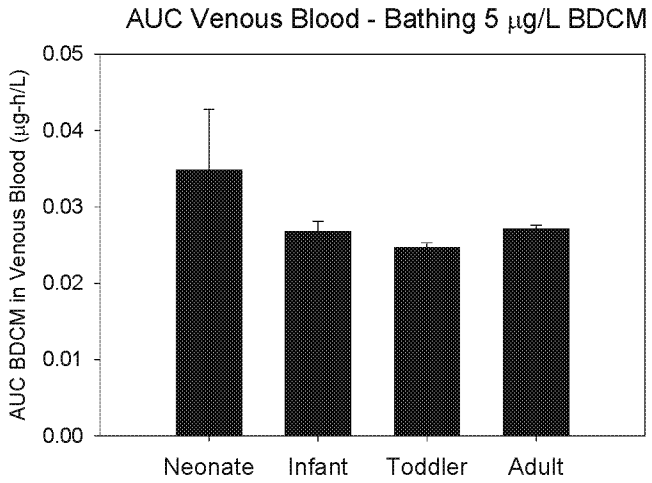


Fig. 4. Summary of CYP2E1 developmental expression pattern. After normalization by log transformation, CYP2E1 specific content as a function of age was grouped to minimize differences within while maximizing differences between age brackets. The resulting data are shown as a box and whisker plot in which the horizontal bar represents median CYP2E1 specific content, boxes the upper and lower quartiles, and vertical bars the 5th to 95th percentiles. The numbers of samples for each age group are shown in parentheses. The asterisk indicates a significant difference in CYP2E1 specific content relative to all other groups (P 0.01), while the dagger indicates a significant difference in CYP2E1 specific content relative to all other age groups except the third trimester (P 0.01, ANOVA with Dunnett's T3 post hoc test).

Area Under Curve BDCM in Venous Blood

20 min Bath

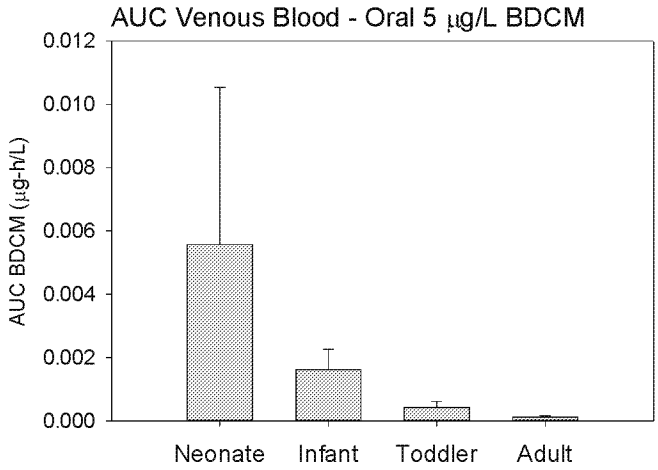


CV %: 23 4.9 2.6 1.9

Water Concentration: 5 µg/liter BDCM

Area Under Curve BDCM in Venous Blood

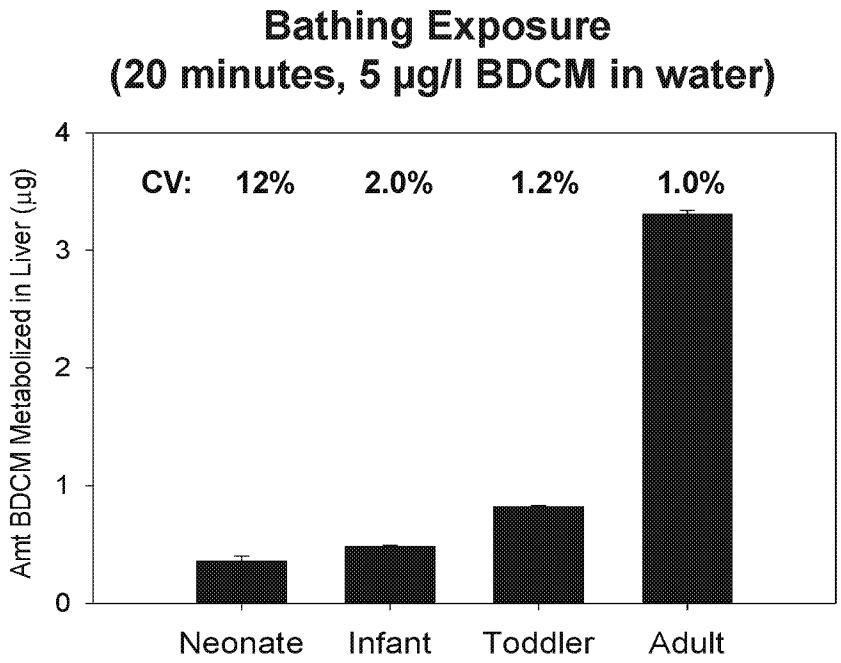
Single 0.05 liter Drink



CV %:	89	41	46	32

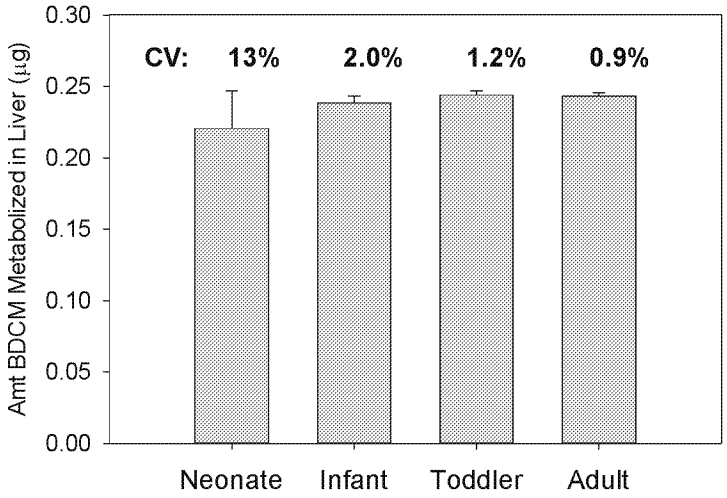
Water Concentration: 5 µg/liter BDCM

Amount BDCM Metabolized in Liver



Amount BDCM Metabolized in Liver

Oral Exposure
(single 0.05 L drink, 5 µg/l BDCM in water)



Cmax Exhaled Breath BDCM ($\mu g/m^3$)

Bathing Exposure
(20 minutes, 5 µg/l BDCM in water)

Age Group	Mean	SD	% CV	Lower 5th	Upper 95th	Fold Difference
Neonate	5.12	1.35	26.47	3.74	7.80	2.08
Infant	3.64	0.14	3.80	3.48	3.90	1.12
Toddler	3.33	0.06	1.68	3.26	3.44	1.05
Adult	2.89	0.03	0.92	2.85	2.94	1.03

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Cmax Exhaled Breath BDCM ($\mu g/m^3$)

Oral Exposure
(single 0.05 L drink, 5 µg/l BDCM in water)

Age Group	Mean	SD	% CV	Lower 5th	Upper 95th	Fold Difference
Neonate	1.42	1.13	79.2	0.151	3.451	22.83
Infant	0.32	0.12	38.7	0.167	0.547	3.28
Toddler	0.08	0.03	42.9	0.035	0.139	4.03
Adult	0.01	0.01	41.1	0.006	0.024	3.73

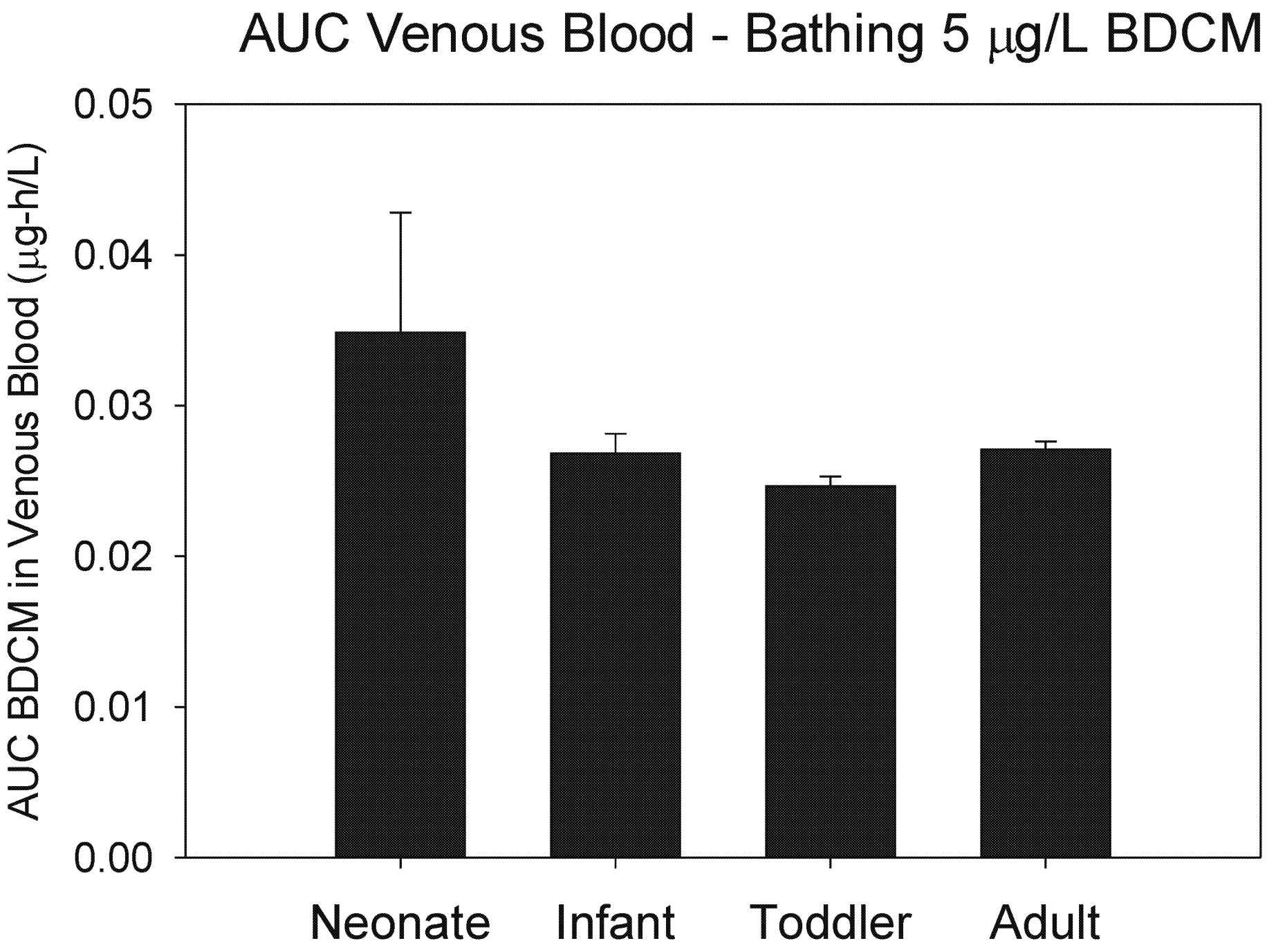
Summary

- “Hypervariability” in the development of CYP2E1 in the neonatal period is reflected in greater variability in pharmacokinetic outcomes for neonates relative to other age groups, irrespective of exposure route.
- Quantitative consideration of variation in metabolizing enzyme expression in pediatric populations using a PBPK model framework can provide a physiologically realistic assessment of pharmacokinetic outcomes for more informative risk analysis.
- Variation in enzyme ontogeny is a generalized phenomenon that merits formal consideration in risk analysis.

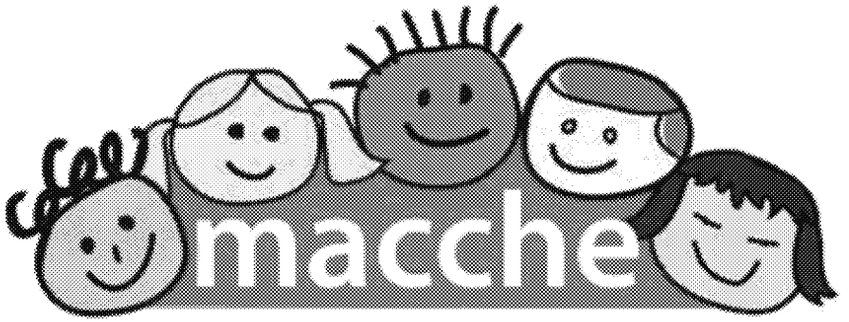
Acknowledgments & Collaborations

- Research Team
  - Ronald N. Hines, ORD/NHEERL
  - John C. Lipscomb, ORD/NHSRC
  - Rex A. Pegram, ORD/NHEERL
  - BJ George, ORD/NHEERL
- Chris Eklund, ORD/NHEERL
- Jane Ellen Simmons, Task Lead SSWR 6.01D
- SSWR 2.2.D Team & OW Colleagues

QUESTIONS?


AUC Venous Blood - Bathing 5 μg/L BDCM
AUC BDCM in Venous Blood (μg-h/L)
0.05
0.04
0.03
0.02
0.01
0.00
Neonate
Infant
Toddler
Adult

REGION 3 PEHSU UPDATE



Mid-Atlantic Center for
Children's Health & the Environment

Prentiss Ward

Regional Children's Health Coordinator

215-814-2813

- Laura Anderko, Director*
- Emma Pennea, Center Manager
- Jerry Paulson, Pediatrician Consultant*
- Lois Wessel, Nurse Consultant
- Katie Huffling, Reproductive Health Consultant
- Maryann Amirshahi, Toxicologist Consultant
- Stephanie Chalupka, Visiting Scientist
- Kelly Jones, Post-doc begins August 2018 (funded thru NSF-Climate and health)

HOW MACCHE GOT INVOLVED

- PFAS in Groundwater in Bucks and Montgomery Counties in PA
- The water supplies affected by PFAs in this area are located near current or former Department of Defense facilities that have/had air training and firefighting activities.
  - The Former Naval Air Warfare Center is located in Warminster, PA
  - The Willow Grove Naval Air Station is near Horsham and Warrington, PA
- Public water supplies:
  - Warminster Municipal Authority, Bucks County PA (serves ~40,000 people)
  - Horsham Water and Sewer Authority, Montgomery County PA (serves ~23,000 people)
  - Warrington Water Authority, Bucks County PA (serves ~7,200 people)
- Private water wells near these locations in both Bucks and Montgomery counties, PA

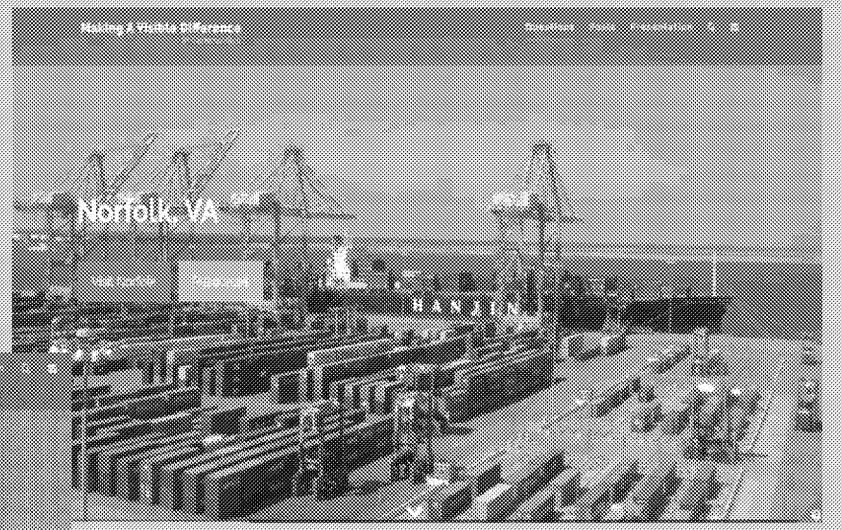
<u>Important:</u> Public wells with PFCs exceedances have been shut down and residents with private well water exceedances are receiving bottled water for drinking and cooking and being hooked up to public water.

EDUCATING HEALTHCARE PROFESSIONALS & BEYOND

- What are PFAS
- Where PFAS commonly found
- Potential exposure pathways
- Current regulatory levels
- Potential health effects
- When is biomonitoring for PFAS exposure helpful?
- Reducing exposures to PFAS
- Water Filters
- Risk communication

IMPACTING THE REGION

- ~12 In-person trainings, webinar and town hall meeting
- 600+ Healthcare, public health and environmental professionals reached



- Recent communities:
  - Norfolk, VA
  - Newport News, VA
  - North Hills, PA

- https://m.youtube.com/watch?feature=youtu.be&v=i000ulVaPNM

Resources

An Overview of Perfluoroalkyl and Polyfluoroalkyl Substances and Interim Guidance for Clinicians Responding to Patient Exposure Concerns

Interim Guidance

Revised on 5/07/2018

Introduction

The purpose of this fact sheet is to provide interim guidance to aid physicians and other clinicians with patient consultations on perfluoroalkyl and polyfluoroalkyl substances (PFAS). It highlights what PFAS are, which chemicals fall into this category of substances, identifies health effects associated with exposure to various PFAS, and suggests answers to specific patient questions about potential PFAS exposure.

Background

What are PFAS?

PFAS, sometimes known as PFCs, are synthet

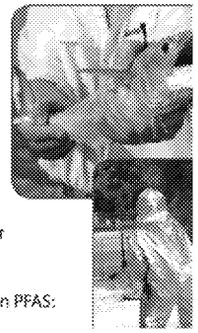
Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)

Frequently Asked Questions

What are PFAS?

Perfluoroalkyl and polyfluoroalkyl substances (PFAS) are a large group of man-made chemicals that have been used in industry and consumer products worldwide since the 1950s.

- PFAS do not occur naturally, but are widespread in the environment.
- PFAS are found in people, wildlife and fish all over the world.
- Some PFAS can stay in people's bodies a long time.
- Some PFAS do not break down easily in the environment.



How can I be exposed to PFAS?

PFAS contamination may be in drinking water, food, indoor dust, some consumer products, and workplaces. Most non worker exposures occur through drinking contaminated water or eating food that contains PFAS.

Although some types of PFAS are no longer used, some products may still contain PFAS:

macche

Mid-Atlantic Center for Children's Health & the Environment

Factsheet on Perfluoralkyl Substances (PFAS) for Health Professionals*

What are PFAS?

PFAS stands for perfluorolkyl substances and are also commonly called perfluorochemicals (PFCs). The thousands of compounds classified within this branch of substances are resistant to stains, heat, oil, grease, and water, and also act as lubricants. PFAS are widely used to make everyday consumer products. For example, PFASmay be used to keep food from sticking to cookware, to make sofas and carpets resistant to stains, to make clothes and mattresses more waterproof, and

RESOURCES

- Perfluoralkyl Substances (PFAS) Fact Sheet for Health Professionals
https://georgetown.app.box.com/s/aplftwkvrikol107aylshnnqzhjuctcn

- PFAS presentation (2016)
https://georgetown.app.box.com/s/8pk1q3kjhk6gg5xzp0sh4348ae06nnee

- Perfluorinated Chemicals (PFCs) Fact Sheet for Warminster Willow Grove
https://georgetown.app.box.com/s/eekartm9xg20m6qaihzuntp1v342drxz

- Blog/online community for PFC residents
http://www.enviro.center/pfcs/pfcs-your-questions/

- Updated Fact Sheet (national PEHSU tool)

- Webinar in 2019

CEH Focus Group Results

COMMUNITY	CEH ISSUES	NEEDS	SUGGESTIONS
Dover, DE	-Asthma – students and teachers wearing perfumes that are triggers to asthmatics -Lead remediation – lack of funds to remediate homes -Food deserts -E-cigarettes being used a lot by youth	-parent, teacher/student education on perfume and other IA triggers -Spanish speaking services limited -Access to fresh fruits & vegetables	Use social media to reach community
Newport News, VA	-Asthma -Trauma (lack of food, divorce, threat of death, etc), -Mold/lead remediation (rentals/multi-family housing and frustrated that lead poisoning prompts a response and programs aren't proactive)	-Align with local hospitals to provide low-cost inhalers. Most guardians can only afford 1 so they typically keep at home and kids miss more school due to asthma. -Doctors not looking at individual triggers to create evidence based asthma plans for guardians	Community outreach with following: - prenatal/maternal/infant care, -extended family, -churches/faith organizations

CEH Focus Group Results Continued

COMMUNITY	CEH ISSUES	NEEDS	SUGGESTIONS
Norfolk, VA	-Built environment – lack of sidewalks, housing islands, lack of services in outskirts of city, little public transportation, lack of bike lines -Poor housing inventory for renters (low-income housing and military housing built in the 1950s and not much updating) Flooding – sea level rise is happening and groups working on emergency preparedness	-Spanish speaking services limited, -Consistent help/sustainable programs -Training for home visitors on environmental health issues to incorporate into the current maternal/post-pregnancy programs -Opioid resources	Community outreach with following: -prenatal/maternal/infant care, -extended family, -churches/faith organizations
Reading, PA	Lead – housing and parental occupational exposure Childcare facilities – radon Opioids Crime	Funding for remediation of older housing stock, occupational exposure education	Presentations at city-wide conference Provide CEH training to home health educators

CEH Focus Group Result Continued

COMMUNITY	CEH ISSUES	NEEDS	SUGGESTIONS
Huntingdon, WV	Lead - increase pediatrician education on need for testing, Substance abuse - meth contamination in homes and, opioids - more babies being born with neonatal abstinence syndrome Asthma - rates have increased significantly in the past 3 years from 7.9 to 11.9% of population, have #2 smoking rate in the US, ETS exposure in kids Air pollution - railroad and ship traffic Childcare centers - have a large number of childcare facilities in old buildings	Funds for lead remediation, lead education on occupational and hobby exposures Funds for meth remediation Interested in expanding eco-friendly childcare certification	

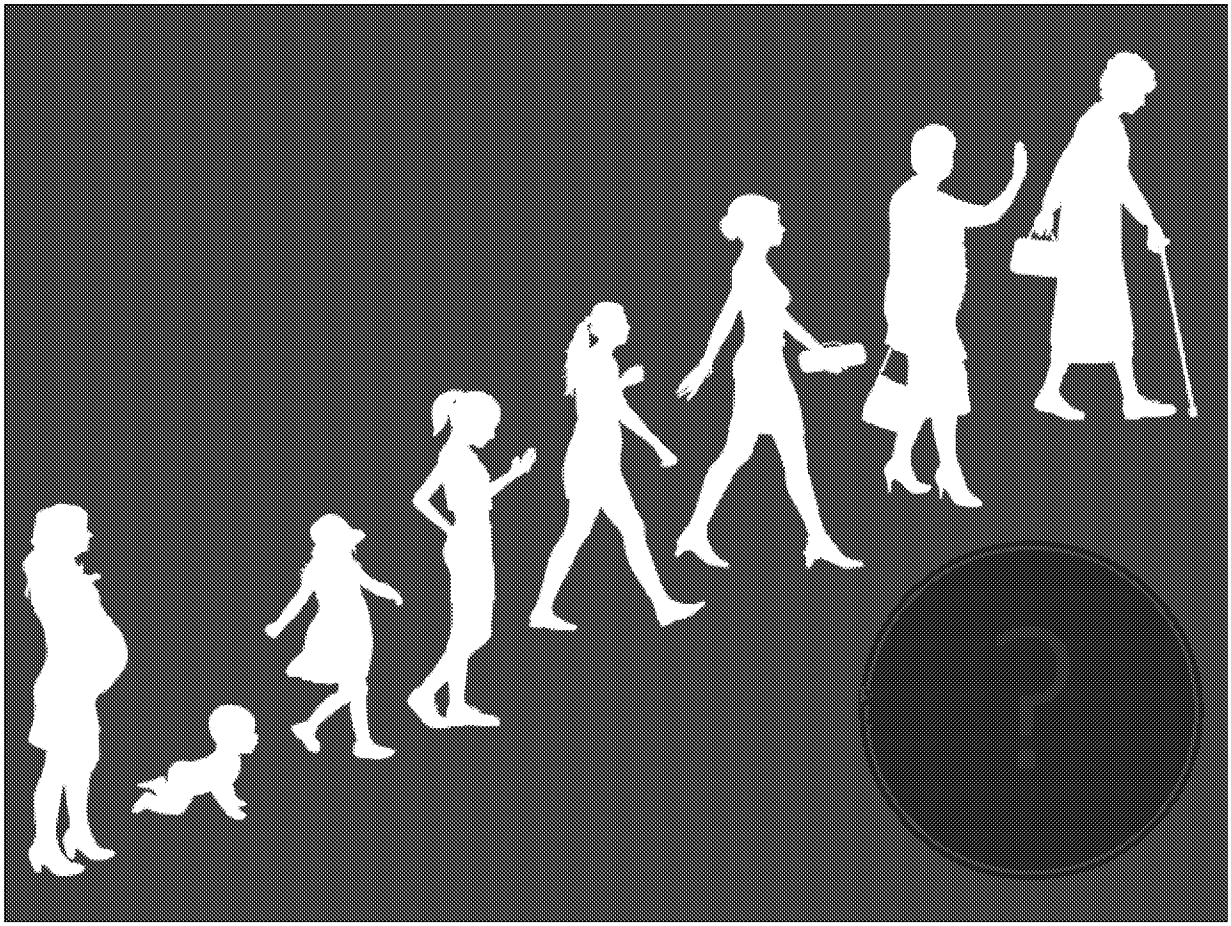
NEW REGIONAL PROJECTS

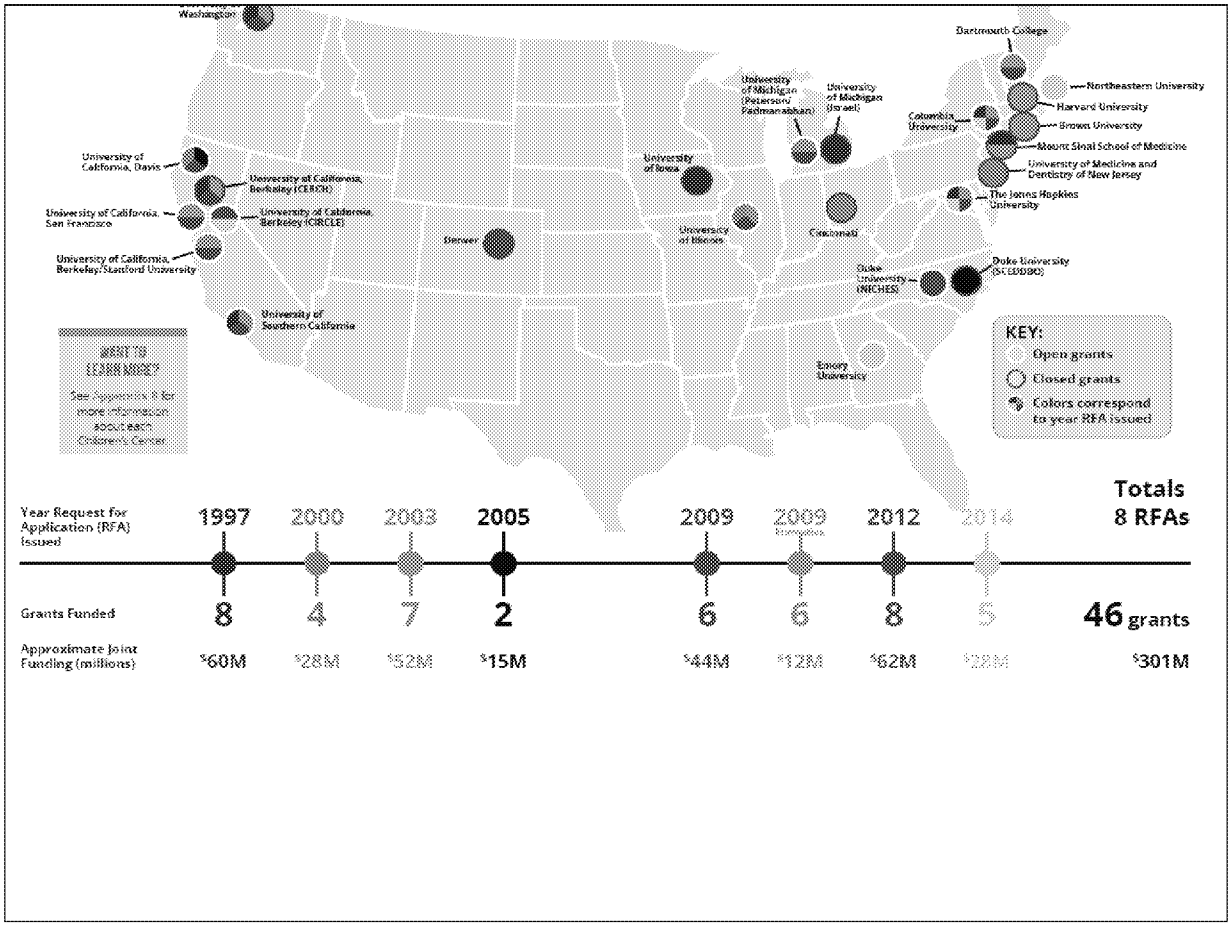
- Lead in Soil PSA
- Home Health Educator Training
- Air Quality Flags/schools

OCHP Comments on ORD Strategic Research Action Plans

Nica Louie
US Environmental Protection Agency
Office of Children's Health Protection

October 3, 2018




Washington
Dartmouth College
Northeastern University
Harvard University
Brown University
Mount Sinai School of Medicine
University of Medicine and Dentistry of New Jersey
The Johns Hopkins University
Columbia University
University of Michigan (Peterson/ Pachmanabhan)
University of Michigan (Israel)
University of California, Davis
University of California, Berkeley (CERCH)
University of California, San Francisco
University of California, Berkeley (CIRCLE)
University of California, Berkeley/Stanford University
University of Southern California
Denver
University of Iowa
University of Illinois
Cincinnati
Duke University (NICHES)
Duke University (SCEDDIRC)
Emory University
KEY:
Open grants
Closed grants
Colors correspond to year RFA issued
Year Request for Application (RFA) Issued
1997
2000
2003
2005
2009
2009
2012
2014
Totals 8 RFAs
Grants Funded
8
4
7
2
6
6
8
5
46 grants
Approximate Joint Funding (millions)
$60M
$28M
$52M
$15M
$44M
$12M
$62M
$22M
$301M

Message

From: Carolina Espina Garcia [EspinaC@iarc.fr]
Sent: 10/2/2018 8:59:10 AM
To: Murawski, Aline [Aline.Murawski@uba.de]
CC: Marie Aline Charles [marie-aline.charles@inserm.fr]; 中山祥嗣 [fabre@nies.go.jp]; Wolz, Birgit (Birgit.Wolz@bmub.bund.de) [Birgit.Wolz@bmub.bund.de]; Kolossa Dr., Marike [marike.kolossa@uba.de]; Conrad, Andre [andre.conrad@uba.de]; Magnus, Per Minor [PerMinor.Magnus@fhi.no]; Helle Margrete Meltzer (HelleMargrete.Meltzer@fhi.no) [HelleMargrete.Meltzer@fhi.no]; Caspersen, Ida Henriette [Ida.Henriette.Caspersen@fhi.no]; Sjurdur Frodi Olsen (SFO@ssi.dk) [SFO@ssi.dk]; Etzel, Ruth [Etzel.Ruth@epa.gov]; junjimzhang@sina.com; 'Jim Zhang (h7739@hotmail.com)' [h7739@hotmail.com]; HIDENORI_YAMAMOTO@env.go.jp; Michihiro KAMIJIMA [kamijima@med.nagoya-cu.ac.jp]; MIHO_KONNO@env.go.jp; JUNYA_YAFUNE@env.go.jp; eco-chil-sc@ml.mri.co.jp; shimizu-a@janus.co.jp; arataki@janus.co.jp; Joachim Schuz [SchuzJ@iarc.fr]; Akram Ghantous [GhantousA@iarc.fr]
Subject: RE: Next ECHIBCG teleconference - Wednesday 12th September at 1 p.m. CET
Attachments: ECHIBCG-lead-version2_CoMu_Michi.docx; ECHIBCG-lead-version2_CoMu_Michi.docx; TC 2018 10 02 Agenda.doc

Importance: High

Dear all,

Thank you for your comments.
I have added Michi's comments to the version reviewed by Aline and André; **please use this attached version to add further comments**.

I have added an item to the agenda for today's meeting; please find it attached as well.

Best,
Carolina
-----Original Message-----
From: Murawski, Aline [mailto:Aline.Murawski@uba.de]
Sent: Tuesday, October 2, 2018 10:42 AM
To: Carolina Espina Garcia
Cc: Marie Aline Charles; 中山祥嗣; Wolz, Birgit (Birgit.Wolz@bmub.bund.de); Kolossa Dr., Marike; Conrad, Andre; Magnus, Per Minor; Helle Margrete Meltzer (HelleMargrete.Meltzer@fhi.no); Caspersen, Ida Henriette; Sjurdur Frodi Olsen (SFO@ssi.dk); Ruth < Etzel (Etzel.Ruth@epa.gov); junjimzhang@sina.com; HIDENORI_YAMAMOTO@env.go.jp; Michihiro KAMIJIMA; MIHO_KONNO@env.go.jp; JUNYA_YAFUNE@env.go.jp; eco-chil-sc@ml.mri.co.jp; shimizu-a@janus.co.jp; arataki@janus.co.jp; Joachim Schuz; Akram Ghantous
Subject: AW: Next ECHIBCG teleconference - Wednesday 12th September at 1 p.m. CET

Dear all,

as Michi mentioned already - thanks for the second draft of the manuscript, it has improved a lot and reads very well now! Find attached the manuscript with some annotations and additions from André and me.

Additionally we did a literature review on Pb and body mass index/obesity. Attached is a short text on our findings which might complement the discussion section of the manuscript.

See/hear you later and kind regards,
André and Aline

-----Ursprüngliche Nachricht-----

Von: Michihiro KAMIJIMA [mailto:kamijima@med.nagoya-cu.ac.jp]
Gesendet: Dienstag, 2. Oktober 2018 10:29
An: Carolina Espina Garcia <EspinaC@iarc.fr>
Cc: Marie Aline Charles <marie-aline.charles@inserm.fr>; 中山祥嗣 <fabre@nies.go.jp>; Wolz, Birgit (Birgit.Wolz@bmub.bund.de) <Birgit.Wolz@bmub.bund.de>; Kolossa Dr., Marike <marike.kolossa@uba.de>; Conrad, Andre <andre.conrad@uba.de>; Murawski, Aline <Aline.Murawski@uba.de>; Magnus, Per Minor <PerMinor.Magnus@fhi.no>; Helle Margrete Meltzer (HelleMargrete.Meltzer@fhi.no) <HelleMargrete.Meltzer@fhi.no>; Caspersen, Ida Henriette <Ida.Henriette.Caspersen@fhi.no>; Sjurdur Frodi Olsen (SFO@ssi.dk) <SFO@ssi.dk>; Ruth < Etzel (Etzel.Ruth@epa.gov) <Etzel.Ruth@epa.gov>; junjimzhang@sina.com; HIDENORI_YAMAMOTO@env.go.jp; MIHO_KONNO@env.go.jp; JUNYA_YAFUNE@env.go.jp; eco-chil-sc@ml.mri.co.jp; shimizu-a@janus.co.jp; arataki@janus.co.jp; Joachim Schuz <SchuzJ@iarc.fr>; Akram Ghantous <GhantousA@iarc.fr>
Betreff: Re: Next ECHIBCG teleconference - Wednesday 12th September at 1 p.m. CET
Wichtigkeit: Hoch

Dear all,

This 2nd version of the manuscript reads very well as Carolina mentioned.
Thank you for the efforts made to be in time, especially Carolina, Joachim and Shoji.

I would like to add just minor comments for the possible discussion.

1. Title
1) We may put our working group name in the title.
2) The main scientific significance of this article is a comparison of blood lead levels across countries and the factors contributing to the concentrations.
More straightforward title might be possible, though the source of the blood
(population) is different between the countries.

2. The discussion in lines 300-313 is related to study limitation. A part of this discussion may be described under the subheading 'Study (strength and) limitation'
before "5. Conclusion" to improve the clarity.

Regarding the coming face-to-face meeting in November, I will not be able to attend it. This time Shoji and Dr. Chisato Mori (he attended a meeting in Baltimore in 2011) from Japan.

Best,
Michi

Michihiro KAMIJIMA, MD, PhD
Professor

Dept. of Occupational and Environmental Health Nagoya City University Graduate School of Medical Sciences

1 Kawasumi, Mizuho-cho, Mizuho-ku
Nagoya 467-8601
Japan

> 2018/09/28 22:26、Carolina Espina Garcia <EspinaC@iarc.fr>のメール:
>
> Dear all,
>

> Please find attached the tentative agenda for next Tuesday's teleconference, the draft minutes with some comments and the second version of the lead article for your revision (please note that there is "Supplementary information" at the end of the paper). We will discuss this new draft on Tuesday.
> Thank you Shoji and Joachim for preparing this second version so fast; it reads very well.
>
> Best regards,
>
> Carolina
>
> From: Carolina Espina Garcia
> Sent: Friday, September 28, 2018 11:02 AM
> To: 'Marie Aline Charles'; 'Shoji Nakayama'; 'Michihiro KAMIJIMA'; 'Wolz, Birgit (Birgit.Wolz@bmub.bund.de)'; 'Kolossa-Gehring, Marike (marike.kolossa@uba.de)'; 'Conrad, Andre'; 'Murawski, Aline'; 'Magnus, Per Minor'; 'Helle Margrete Meltzer (HelleMargrete.Meltzer@fhi.no)'; 'Caspersen, Ida Henriette'; 'Sjurdur Frodi Olsen (SFO@ssi.dk)'; 'Ruth
< Etzel (Etzel.Ruth@epa.gov)'; 'junjimzhang@sina.com'
> Cc: 'HIDENORI_YAMAMOTO@env.go.jp'; 'MIHO_KONNO@env.go.jp';
> 'JUNYA_YAFUNE@env.go.jp'; 'eco-chil-sc@ml.mri.co.jp';
> 'shimizu-a@janus.co.jp'; 'arataki@janus.co.jp'; Joachim Schuz; Akram
> Ghantous
> Subject: RE: Next ECHIBCG teleconference - Wednesday 12th September at
> 1 p.m. CET
> Importance: High
>
>
> Dear all,
>
> Please find below the link and telephone numbers to connect to our teleconference next Tuesday 2nd October September at 1 p.m. (Lyon, France time/ 8 p.m. Tokyo, Japan / 7 a.m. Washington DC, USA / 7 p.m. Shanghai, China).
>
> A second email will follow with more information.
>
> Best regards,
>
> Carolina
>
>
> ———————————————————————————————
>
> Please join my meeting from your computer, tablet or smartphone.
> https://global.gotomeeting.com/join/110143685
>
> You can also dial in using your phone.
> France: Ex. 6
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> Access Code: Ex. 6
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Ex. 6

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> First GoToMeeting? Let's do a quick system check:
> https://link.gotomeeting.com/system-check
>
> _____
>
> <TC 2018 10 02 Agenda.doc><ECHIBCG - TC 2018 09 12 DRAFT
> Minutes_UBA.DOCX>

Ex. 6

Target journal: International Journal of Hygiene and Environmental Health

Benefits of cooperation between large-scale cohort studies and human biomonitoring projects in environmental health research: An exercise in blood lead analysis

Commented [CEG1]: Michi:
1) We may put our working group name in the title.
2) The main scientific significance of this article is a comparison of blood lead levels across countries and the factors contributing to the concentrations.
More straightforward title might be possible, though the source of the blood
(population) is different between the countries.

Authors (Tentative order and completeness)

Shoji F. Nakayama[1], Carolina Espina[2], Michihiro Kamijima, Per Magnus, Marine-Aline Charles, Jun Jim Zhang, Birgit Wolz, André Conrad[3], Aline, Murawski[3], Miyuki Iwai-Shimada, C Zaros, Ida Caspersen, Marike Kolossa-Gehring[3], Helle Margarete Meltzer, Sjurdur Olsen, Ruth Etzel, Joachim Schüz[2]

Commented [JS2]: Shoji & Joachim: For discussion

Affiliation

[1] Japan Environment and Children's Study Programme Office, National Institute for Environmental Studies, Tsukuba, Japan

[2] International Agency for Research on Cancer (IARC), Section of Environment and Radiation, Lyon, France

[3] Federal Environment Agency, Department for Environmental Hygiene, Berlin, Germany

Others…

Corresponding Author (Tentative):

Shoji F. Nakayama, MD, PhD

Japan Environment and Children's Study Programme Office, National Institute for Environmental Studies

16-2 Onogawa, Tsukuba, Ibaraki 305-8506, Japan

Telephone: +81 (29) 850-2786

E-mail: fabre@nies.go.jp

Number of figures and tables: X figure and Y tables

ED_002399_00019204-00001

Keywords: Biomonitoring; birth cohort; lead; harmonisation; XXX; YYY

Chemical compounds studied in this article: Lead (PubChem CID: 5352425)

Highlights

-

ED_002399_00019204-00002

Abstract

Background

Methods

Results

Conclusion

ED_002399_00019204-00003

1. Introduction

Foetal and neonatal exposure to chemical substances may lead to adverse health effects in later life such as developmental disorders, immune system dysfunction and hormone disruptions (Barouki et al., 2012; Grandjean et al., 2008). Birth cohort studies are one of the major tools to identify these associations between the environment and children's health and when possible confirm causalities. In the past decades, many birth cohort studies have been conducted to investigate the impact of a variety of chemical substances (Barbone et al., 2018; Botton et al., 2016; Boucher et al., 2009; Casas et al., 2015; Clemente et al., 2016; Huang et al., 2016; Iszatt et al., 2015; Perera et al., 2006; Pilsner et al., 2009; Rauh et al., 2011; Shelton et al., 2014). However, those individual studies are inconclusive and insufficient to prove causal relationship between the exposure and health outcomes mainly due to a lack of statistical power. To overcome this dilemma, large scale birth cohort studies were initiated in the late 1990's in Norway and Denmark (Magnus et al., 2016; Olsen et al., 2001). The United States, Japan, France, UK and South Korea followed, however, the US and UK studies were terminated early (Branum et al., 2003; Dereumeaux et al., 2017; Kawamoto et al., 2014; Kishi et al., 2011; Lee et al., 2017; Vandentorren et al., 2009). These studies involve each 20,000–100,000 participants and thus are considered large enough to investigate the relationship between the environment and common outcomes in children's health and development. However, when it comes to rare diseases such as childhood cancers, type-1 diabetes, congenital anomalies or sudden infant death syndrome (SIDS), none of those studies has sufficient statistical power by itself. The number of 100,000 may also fall short when looking at the effect of multiple environmental factors at the same time, e.g. a collective effect of lead, mercury, cadmium, persistent organic pollutants (POPs), pesticides and some other compounds of emerging concerns such like perfluorinated alkyl substances, phthalates and parabens on children's neuro/psychiatric development.

Commented [SFN3]: Need rather review paper here for more comprehensive listing

Commented [SFN4]: Need to pick chemicals suspected for neurodevelopmental effects

One way of increasing statistical power is to perform a meta-analysis of multiple study results (Huang et al., 2016). Acquiring information on links between children's health and environmental exposures by meta-analysis of data from different birth cohort studies poses a number of challenges: Studies on environmental health employ a variety of instruments, including for health and development,

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questionnaires, in-person or phone interviews, physical examinations, clinical tests and for environmental exposures, ~~questionnaires~~ interviews, environmental monitoring or sampling modelling and biomonitoring. Especially for exposure assessment, it is often harder to compare data across the studies, due to non-standardized procedures used in each study. For instance, each study may very well employ different sampling and analytical methods for biomonitoring. Even if they use exactly the same methods, each laboratory performs in different analytical qualities. To overcome such problems in meta-analysis, birth cohort consortia have been formed to aim pooled analysis or mega-analysis instead of meta-analysis. Examples are the International Childhood Cancer Cohort Consortium (I4C) (Brown et al., 2007), Environmental Health Risks in European Birth Cohorts (ENRIECO) (Gehring et al., 2013) and Birth Cohort Consortium of Asia (BiCCA) (Kishi et al., 2017). In order to pool each study's data, a key is data or method harmonisation that should involve pre-standardisation of study procedures such as questionnaires, physical/developmental examinations, clinical tests and laboratory analyses or post-normalisation of existing data.

Our group, the Environment and Child Health International Birth Cohort Group (ECHIBCG) (Etzel et al., 2014), has been exercising the harmonisation of study methods and aims at harmonizing data including infant health outcomes, biomarkers, environmental measurements, socioeconomic and migration status. Recently, we have focused on chemical exposure measurements by identifying priority chemicals; comparing about each study's questionnaire and laboratory methodologies; and conducting inter-laboratory procedural tests. In order to make data comparable, retrospective harmonisation is as important as prospective harmonisation since in most cases data are already collected. Here we report our joint exercise in ad hoc data harmonisation taking lead (Pb) as an example contaminant. Based on a comparison of each study's method procedures, results of a round-robin practices, and findings of a joint data ~~on~~ analysis on~~of~~ potentially relevant factors influencing maternal internal exposures across countries, we present our lessons learned with respect to co-operation of birth cohort studies on environmental health research.

2. Materials and methods

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2.1. Participating studies and organisations

Commented [CA5]: Please add, that ECHIBCG is jointly coordinated by Japan and Germany.

In late 2011, the Japan Ministry of the Environment (JMOE) invited investigators associated with some large-scale 21st century birth cohort studies to discuss about how to better design the assessment of disease outcomes, biomarkers and environmental exposures. Investigators from various large-scale cohort studies discussed about the benefit of data pooling among the studies and need of study harmonisation (Ishitsuka et al., 2017). The JMOE suggested that it would be useful to establish working groups to define a list of core elements for inclusion in the harmonisation. Such core elements could include disease outcome definitions, biomarkers and exposure measurements. A working group was therefore proposed to discuss and exchange information about ongoing and forthcoming large-scale birth cohort studies and national bio-/environmental monitoring projects. Experts from new large-scale studies of environmental influences on children's health and development that are currently being planned or conducted in France, Germany, Japan, Shanghai (China) and the United States constituted the Environment and Child Health International Birth Cohort Group (ECHIBCG) in 2011 (Etzel et al., 2014). Later, Denmark and Norway joined and the International Agency for Cancer Research (IARC) became the secretariat of the group. The current ECHIBCG consists of the Danish Birth Cohort Study (DNBC) (Olsen et al., 2001), the Etude Longitudinale Française depuis l'Enfance (Elfe) (Dereumeaux et al., 2017; Vandentorren et al., 2009), the German Environment Ministry and German Environment Agency, the Japan Environment and Children's Study (JECS) (Kawamoto et al., 2014), the Norwegian Mother and Child Study (MoBa) (Magnus et al., 2016), the Shanghai Birth Cohort Study (SBC) (Zhou et al., 2017) and the United States Environmental Protection Agency (the information of the member studies is summarised in the Supplementary Information and Table S1). Elfe, the Environmental Specimen Bank (ESB) from Germany (Kolossa-Gehring et al., 2012), JECS, SBC and MoBa provided data for this exercise.

2.2. Round-robin test procedures

Commented [SFN6]: I wonder if we could gather results from G-EQUAS participation. That could give us whole laboratory participation even including Norway and Shanghai.

The group undertook an inter-laboratory comparison (round-robin) project in 2014 for blood Pb analysis. Participatinged laboratories were three from Japan, one each from France and Germany. The group first examined each country's custom regulation for the transportation of frozen blood samples.

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Second water samples were sent to France and Germany on dry ice and with temperature loggers to evaluate the transportation process. The group used ~~an~~ JECS in-house reference material (JECS RM, details described in the Supplementary Information) for whole blood round-robin tests among France, Germany and Japan. Four vials of the JECS RM (2-ml polypropylene cryo-vials with 2-D barcode on the bottom) were shipped to each designated laboratory or facility in France, Germany and Japan. The vials were placed in a secondary container (polypropylene) that was packed in a plastic bag. The sample containers were then set in a Styrofoam box that contained a few kg of dry ice. A temperature logger was placed on top of the samples. Upon receipt, the participating laboratories visually observed the sample condition and filled out a shipment evaluation sheet. Each laboratory sent the completed evaluation sheet and the temperature logger back to JECS Programme Office where the information was examined and compiled.

The JECS RM were kept in its original vials and stored frozen at or below negative 20°C until use. Freezers were temperature controlled and monitored with limited temperature fluctuation. Before use, a frozen sample was allowed to thaw at room temperature. The sample was mixed by gently rocking or mildly swirling (not shaking) the vial to remix any water that may have separated on freezing. Each laboratory analysed all 4 vials in at least 3 replicates for lead using its own methods. The laboratories were provided with an electronic reporting format, in which they reported the results of the analysis including concentrations, method summary description and method performance characteristics. The laboratory analytical procedures involved in this trial are shown in Table 1.

2.3. Blood lead measurements and covariate data acquisition

Lead levels were determined in mothers' whole blood during pregnancy in Japan and Norway, ~~in the women's~~ in whole blood in Germany (~~female ESB participants,~~ non-pregnant women), and in cord blood in China and France. All measurements were above detection limits. Detection limits varied across studies, with the lowest limit in Norway with 0.08 μg l^{-1} and the highest limit in France with 0.6 μg l^{-1}. The timing of the blood collection also varied across studies; for Japan it was 2011–14, Norway 2002–08, France 2011, China 2014–15, and Germany 2010–~~17~~16. No calibrations were made

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for whole blood vs cord blood or for the time period, as it was not possible to quantify the possible impact due to lack of comparison data. All Pb levels were harmonized to the unit of $\mu g\ l^{-1}$.

Possible explanatory factors of maternal lead levels as identified in a stepwise process (described in the following section) were acquired from questionnaires developed by each study and had to be harmonized across studies. Selected explanatory factors at the time of sampling were maternal smoking [current, former (stopped at least X years before sampling), not active but passive smoking in household, and never smoking including no current passive smoking]; maternal age (categorized into < 25 years, 25–34 years, 35+ years); maternal body-mass-index (BMI) [categorized into < 18.5, 18.5–25, and 25+ kg/m^2 (overweight or obese, as the latter group included too few subjects in most studies)]; consumption of coffee, tea, tap water, or bottled water (all in categories less than once, 1–2 times, 3+ times per week); alcohol drinking [current when pregnancy was known, former (stopped before pregnancy or as soon as known), never]; chocolate consumption (categorized into less than once, 1–2 times, 3+ times per week) and whether renovation works at home took place during pregnancy. In Germany, variables referring to pregnancy referred to the sampling time period, as sampled population were non-pregnant women. Education was kept in the final model for adjustment in the original categories, usually from low to high in several steps, as studies came from different parts of the world and the attempts to harmonise were not meaningful. Other harmonised variables not kept in the final analytical model were sex of offspring, pre-term or term pregnancy, or parity (first vs later born child) (all not relevant for Germany), as well as consumption of bread, dairy products, seafood, or vegetables, and year of construction of the house where the women lived. Slight compromises had to be made in variables related to foods consumption, as dietary questions were not identical. In China, Japan and Norway the item "tea" consisted of only green tea while it was different types of tea in France and Germany. In Japan, coffee consumption was specified as only from beans and green tea as only from leaves. In France, units of coffee and tea consumption were measured in less than once, once, or 2+ times per week.

Commented [JS7]: All studies: please provide the respective figure.

Commented [CA8R7]: In German ESB, no such definition has been used. Just self-reported "former smoker".

2.4. Statistical analysis

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As all of the studies had to follow their own countries/regions' data protection rules/legislations, most of the studies were not able to share the data with others. Thus, we employed de-centralised data analysis.

The first step was a descriptive analysis, obtaining univariate statistics by study, e.g. mean, median and percentiles. For visualisation, we created a boxplot-like figure where the 10th and 90th percentiles were used as whiskers, the 1st (25th percentile) and 3rd quartile (75th percentile) as the box range, the median (50th percentile) as box separator, and the 99th percentile as external extra asterisk, rather than the common boxplot definition, to avoid distraction by outliers as we aimed at a visual comparison of majority of measured values across studies.

The second step was to identify common factors influencing blood Pb levels, with the identification of possibly relevant factors through two mechanisms. First, we did a literature search looking for factors being established in at least one publication as influencing blood Pb levels and that had been assessed in at least the majority of our studies. Second, studies analysed their own data and selected factors having influence on the Pb level, irrespective of the magnitude. From this list, a first stage linear model was developed including all factors on the combined list. From this run, all variables that did not lead to at least 20% change in Pb levels in at least one of the studies were removed. This final model was applied independently to each study to obtain the coefficients of the individual explanatory factors and their uncertainty, as well as the unadjusted and adjusted R^2 of the model, indicating the percentage variation in Pb levels explained by the model (final selection of variables described in the previous section). The 20% change-criterion for choosing variables was preferred over the p-value due to the highly varying sample sizes across studies; while for Japan even tiny changes became formally statistically significant, this was only the case for major changes in China, for instance. Finally, we applied to the data the coefficients for smoking, maternal age and BMI, which were the relevant explanatory factors with highest comparability across studies, to compare predictions of how much Pb levels increase on average with exposure to current smoking, high maternal age, and high BMI in the individual studies.

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Instructions for analyses were developed at the IARC together with the study principal investigators, to make sure the approach was identical; afterwards analyses were carried out de-centrally, as mentioned above. All studies had national ethical clearance.

3. Results

3.1. Inter-laboratory comparison

All laboratory used the inductivity coupled plasma mass spectrometry (ICP-MS) method with slightly different sample pre-treatment procedures. The result of the round-robin trial is illustrated in Figure 1. French and German laboratories reported the mean Pb concentrations of 8.71 and 8.27 μg l^{-1} with relative standard deviations (RSDs) of 2.9% and 2.5%, respectively. Three Japanese laboratories showed mean concentrations of 8.76, 8.83 and 8.75 μg l^{-1} with RSDs of 1.1%, 0.8% and 0.8%, respectively. Overall mean concentration was 8.66 μg l^{-1} (95% confidence interval: 8.59–8.72 μg l^{-1}) with 3.0% RSD.

Commented [SFN9]: Need info from Germany

Commented [CA10R9]: We asked Thomas Göen to fill in Table 1.

3.2. Current blood lead levels

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Each study using each own method reported Pb concentrations in cord blood or whole blood samples. Numbers of available samples differed greatly by study, with 17,998 samples from Japan, 2,982 from Norway, 1,842 from Germany, 1,670 from France, and 423 from China. Distributions of Pb levels by study are displayed in Figure 2. With the exception of China, median values were close to or lower than 10 μg l^{-1} and 90th percentiles close to or lower than 20 μg l^{-1}. None of the 99th percentiles exceeded 50 μg l^{-1}. Maximally measured levels were 202 μg l^{-1} in Norway, 107 μg l^{-1} in France, 103 μg l^{-1} in Germany, 80.5 μg l^{-1} in China, and 74.5 μg l^{-1} in Japan.

3.3. Determinants of blood Pb levels

Each group analysed their own data to examine determinants of blood Pb concentrations according to the same instructions as described in the previous section. Table 2 shows the results of the final model with explanatory factors having an impact of at least 20% change in average Pb levels in at least one

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study, and subsequently applied to all studies. Items shown in Table 2 include the number of subjects in each category, the coefficient of change and its standard error compared to the reference category, as well as the intercept of the model (reflecting the Pb levels by country with all explanatory factors in their reference category; bottom of the table) and the R^2 values. In line with Figure 2, the intercept shown in Table 2 confirms the lowest Pb levels in Japan and France and the highest in China and in Germany. The R^2 was below 0.1 in each study; the highest R^2 was seen in France. Current smoking increased Pb levels in all studies in a similar magnitude (including the very low number of subjects in China), except for Germany, where the increase was more pronounced. A positive association was also seen in all studies with increasing maternal age, whereas for BMI most studies showed an increase in overweight and obese women, with the exception of Norway. Patterns of coffee, tea or tap water consumption showed weaker relations, not always entirely consistent across studies, and even lesser so for alcohol, chocolate and renovation works at home (Table 2).

Figure 3 shows the change in Pb level by study of women who were never active and are no passive smokers, are aged <25 years, and are underweight compared to those who are current smokers, aged 35 years or older, and are overweight or obese. The combination of those three variables leads to an increase in Pb levels in each of the five studies, most strongly in France by almost 80% and the weakest effect being in Norway with only 15%; for Japan, with the far largest sample, the difference was 36%.

4. Discussion

4.1. Round-robin trial

The United States National Institute of Standard and Technology (NIST) standard reference material (SRM) 995c (toxic elements in caprine blood), which was certified for Pb at four concentration levels: a base level and three progressively elevated levels, was initially considered suitable for use in the round-robin trial. However, it appeared that a health certificate was required in most countries to import the SRM 955c made of goat blood. Considering that NIST was not ready to issue the certificate, the use of the SRM 955c did not seem practical. The group decided to use a JECS in-house

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265 RM made of human blood officially acquired from the Japanese Red Cross. The shipment took from 3
266 days and went well with the temperature kept below negative 60°C on dry ice. China found that it
267 could not import human materials easily. Sending samples on dry ice to China was also extremely
268 difficult and expensive. There are existing mechanisms of international laboratory accreditation such
269 as German Environmental Quality Assurance Scheme (G-EQUAS) and Canadian ….
270
271 Since Pb is a legacy contaminant, all the laboratories performed very well on the blood Pb analysis.
272 Repeatability of the measurements were satisfactory with RSD of replicate analyses being < 3% for
273 all the participated laboratories. With this precision, a common statistical practice resulted in
274 detecting statistically significant differences ($p < 0.05$) among individual laboratories' results.
275 However, such small differences are irrelevant for the anticipated data use. After pooling data from all
276 the laboratories, overall RSD was still 3.0%.
277
278 4.2. Comparison of blood Pb levels
279 The major aim of this part of the study was looking at common factors influencing blood Pb levels,
280 and some observed consistencies and some inconsistencies across the five studies from five different
281 countries are indeed of interest. The R^2 was below 10% in each study, suggesting that, albeit being
282 associated with the Pb levels, the explanatory factors have little predictive power to estimate
283 individual Pb levels. This was common across studies, although we used a very inclusive approach of
284 investigating potential explanatory factors. This suggests that general characteristics have less
285 influence on Pb blood levels than individual factors. For example on dietary-related factors, general
286 dietary patterns (e.g., how many vegetables one eats on average) has less influence on blood Pb levels
287 than the food location or the processing method of the vegetables the individual person consumes.
288 This is the likely reason why all dietary factors, including type of water consumption or beverages
289 like coffee, tea or alcohol, did not emerge as strong explanatory factors. It is an important finding
290 however, as this observation applies commonly to all countries. The main modifiable factor to lower
291 blood Pb levels appears to be quitting smoking, again consistent across countries and, to lesser extent,
292 avoiding overweight and obesity. Other consistent factors are either not modifiable, like age, or not

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recommendable to attain for health reasons, e.g. blood Pb levels were lower in underweight persons. Coffee and tea consumption led to higher blood Pb levels, of somewhat differing magnitude by country, and for us impossible to disentangle whether the underlying factor is the coffee, the tea or the water in which it is prepared. A number of dietary factors was associated with blood Pb levels in France, albeit not strongly so, but not confirmed in the other countries. Interestingly, the association was reversed for chocolate intake in several countries. Birth characteristics like gestational age, sex of the offspring or parity had no effect in any country.

Measured blood Pb levels were lowest in Japan, followed by France and Norway, somewhat higher in Germany and highest in China. This applies however to our studies and is not necessarily representative for a cross-country comparison, due to different sampling strategies of study participants and study methodologies. First, the impact of whole blood vs cord blood and sampling in slightly different time periods, as well as some analytical uncertainty as shown by the round-robin test, cannot be quantified to calibrate the measured values; in addition, differences across most countries are not very large. Second, the sample from Japan is by far the largest and has therefore considerably less random noise, possibly being the most representative. Third, certainly direct comparison with Germany and China is not straightforward. In Germany, sampled women were not pregnant and different lifestyles, living conditions and behaviours make them probably less comparable to the pregnant women of the other studies. In China, the study was only carried out in Shanghai as a metropolitan area, while the other studies included less urban environments. Nevertheless, all studies have in common that in general measured blood Pb levels were low, with very few exceptions exceeding 50 µg l^{-1}.

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4.3. Implication of the harmonisation exercise

We demonstrated the possibility of the harmonisation of chemical biomonitoring data by using a reference material. The data can be compared and pooled in reference to the measurement results of the reference material, even though each study employs its own analytical protocols and own laboratory and performs the analysis in different time and places. Our practice also showed the

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usefulness of a round-robin exercise to illustrate the performance of each study analysis. We knew that each study used laboratories having accreditations for the particular analysis or having participated in an external quality assurance programme such as the German External Quality Assessment Scheme (G-EQUAS). However, that was not sufficient to evaluate the comparability of the analysis data among the group. The round-robin results demonstrated the importance of the use of reference materials in each study in order to pool the data afterwards.

Commented [SFN14]: G-EQUAS results may be better to put in this manuscript.

Also the data harmonisation in ECHIBCG confirms experiences from other epidemiological consortia, namely that some precision in items needs to be sacrificed for the creation of joint variables. This applies to some extent already to variables having exactly the same meaning in each study, e.g. maternal age, when assessed categorically and those categories differ across countries. It ~~is~~ becomes an even bigger challenge for variables seemingly the same but reflecting slightly different habits in different countries; e.g. fish and seafood consumption across diverse countries such as France, Norway, Germany, China and Japan does not necessarily mean exactly the same type of fish or seafood. The likely effect of collapsing categories, broadening definitions or lumping precise definition into broader groups, is a potential dilution of associations, if they exist; in our case, the association between Pb blood levels and their possible explanatory factors. Evidently, this is inherent in the design, namely the conduct of independent national studies and their multinational pooling, and the overall gain in statistical power as well as the opportunity to identify study-specific associations outweighs the limitations from compromises made at harmonisation stage.

5. Conclusions

Commented [CEG15]: Michi:
To improve the clarity

Commented [CEG16]: Except Germany, right?

Commented [CA17R16]: Yes. Suggestion: "... of five HBM studies to investigate..."

In this first project of the ECHIBCG, a newly established consortium of five prospective cohort studies to investigate environmental risk factors in rare disease in children, we compared blood Pb levels across those five countries and evaluated potential explanatory factors of increased levels. First purpose was to demonstrate that the laboratory analytical methods were sufficiently similar to allow direct comparison of data, as well as demonstrating that it is possible to harmonize the epidemiological data for joint analysis. From this perspective, the exercise was successful and encourages further joint projects. Second purpose comparing Pb levels did not reveal many strong

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explanatory factors, which however was consistent across countries. With the exception of smoking leading to higher Pb levels, other factors appear to be more modestly related or differ by country. Our data suggests Pb levels are more influenced by individual-level factors than by population-level characteristics.

Acknowledgement

The US National Children's Study (NCS) was initially a member of the group and played a significant role. The ECHIBCG acknowledges the NCS for sharing various methods and procedures and providing many in-kind contributions to the group including a teleconference facility and translation capacity. The Norwegian Mother and Child Cohort Study are supported by the Norwegian Ministry of Health and Care Services and the Ministry of Education and Research, NIH/NIEHS (contract no N01-ES-75558), NIH/NINDS (grant no.1 UO1 NS 047537-01 and grant no.2 UO1 NS 047537-06A1). We are grateful to all the participating families in Norway who take part in this ongoing cohort study.

…

The ECHIBCG scientific secretariat at the International Agency for Research on Cancer (IARC) is supported by funding from the Ministry of Environment, Japan, and from the Ministry of Environment, Nature Preservation and Nuclear Safety, Germany.

Commented [SFN18]: Do we need this? If so, we should provide funding sources for all the studies.

Commented [CA19R18]: We could move this to one of the tables.

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Table 1. Summary of the analytical procedures employed in the laboratories participated in the round-robin trial.

	France	Germany	Japan
Sample preparation	Samples (300 µl) were transferred into a 13-ml polypropylene tube and mixed with 2700 µl dilution solution. Dilution solution was made by adding 10 ml 25% NH_4OH, 250 mg EDTA dipotassium salt and 250 µl Triton X-100 into a volumetric flask and filled up to 500 ml with double distilled water.	Samples (300 µl) were transferred into a 13-ml polypropylene tube and mixed with 2700 µl dilution solution. Dilution solution was made by adding 10 ml 25% NH_4OH, 250 mg EDTA dipotassium salt and 250 µl Triton X-100 into a volumetric flask and filled up to 500 ml with double distilled water.	Samples (200 µl) were diluted (1:19) with the dilution solution and vortex mixed. Dilution solution consisted of 2% v/v butan-1-ol, 0.1% TMAH, 0.5 g l^{-1} POE and 0.5 g l^{-1} H_4EDTA
Instrumental analysis	ICP-MS (Agilent Technologies 7500) with ASX 500 auto-sampler	ICP-DRC-MS (Agilent 7500) with ASX 500 auto-sampler	ICP-MS (Agilent 7700 ICP-MS) with auto-sampler
Calibration and calculation	External calibration was used. The limit of quantitation was 0.15 µg l^{-1}.	External calibration was used. The limit of quantitation was 0.15 µg l^{-1}.	External calibration was used. The limit of quantitation was 0.14 µg l^{-1}.

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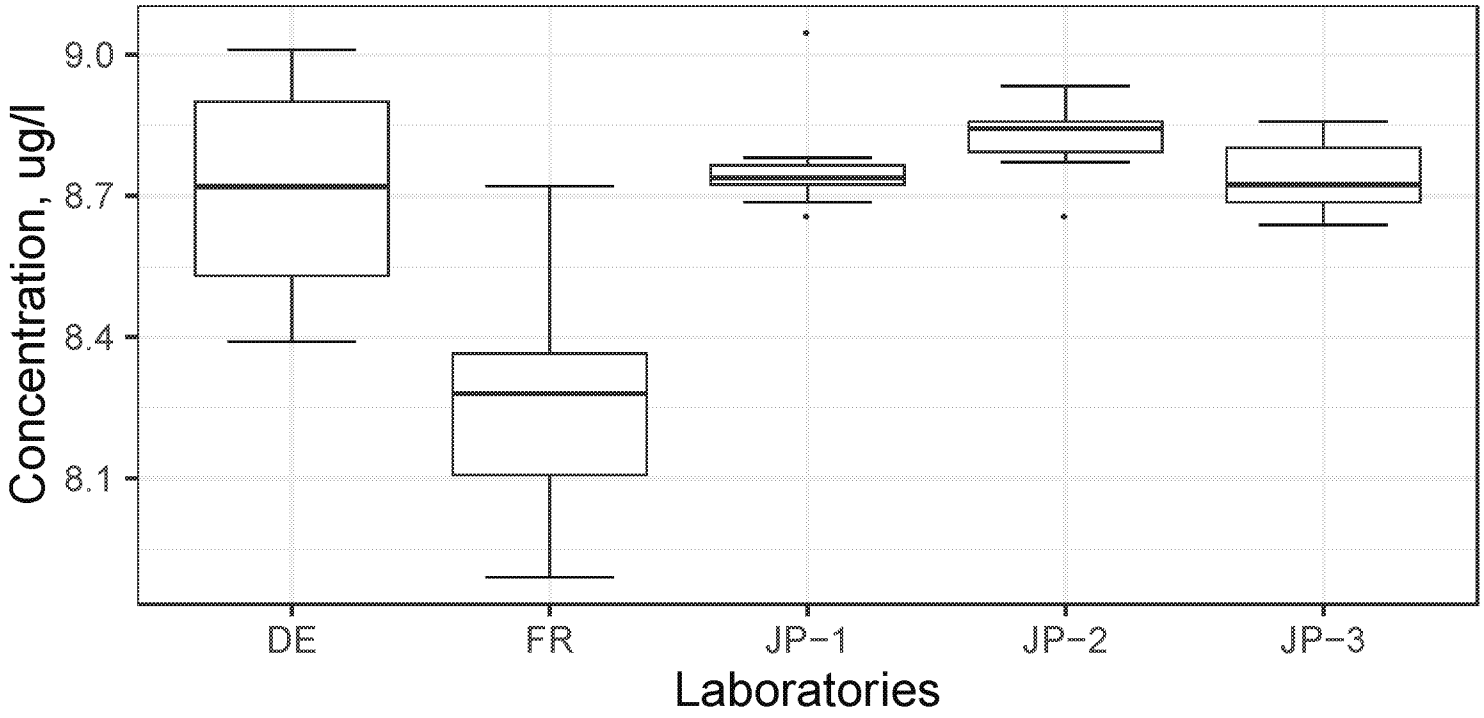

Figure 1. Round-robin test result for lead analysis.

Boxplots were depicted using 1.5 times the interquartile range as whiskers, interquartile range as the box ranges and the median as the box separators.

Abbreviations: DE, Germany; FR, France; JP, Japan.

Figure 2. Plot of lead level distributions by study visualized in boxplot-like shapes showing the 10th, 25th, 50th, 75th, 90th and 99th percentile.

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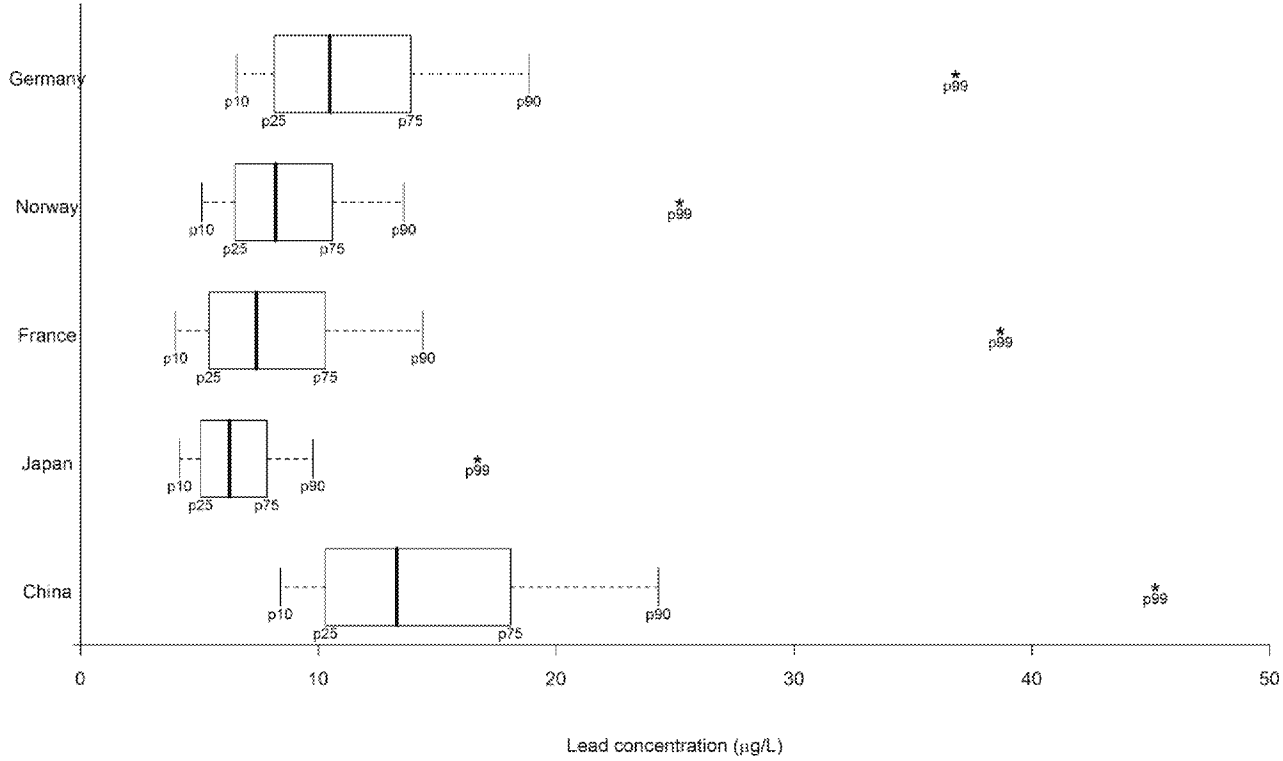

Table 2. Analyses of factors influencing lead concentration in blood by study, showing the numbers in categories, the regression coefficient and its standard error, and the intercept and unadjusted and adjusted R^2 at the bottom of the table

		Shanghai Birth Cohort Study			Japan Environment and Children's Study (JECS)			Etude Longitudi- nale Française depuis l'Enfance (Elfe)			Norwegian Mother and Child Cohort Study (MoBa)			German Environmental Specimen Bank (ESB)		
Variable		N	β	S.E.	N	β	S.E.	N	β	S.E.	N	β	S.E.	N	β	S.E.
Smoking	Never	335	1.00	-	7032	1.00	-	701	1.00	-	1552	1.00	-	1081	1.00	-
	Passive	74	1.43	0.88	2894	0.17	0.07	20	0.08	1.87	100	0.35	0.46	332	0.84	0.30
	Former	12	3.98	2.60	6729	0.34	0.05	399	-0.09	0.42	1157	0.20	0.19	200	1.65	0.36
	Current	2	NA	NA	884	1.27	0.11	380	1.13	0.49	173	1.19	0.39	213	3.33	0.35
Maternal age[&]	<25 years	25	1.00	-	1403	1.00	-	255	1.00	-	241	1.00	-	1224	1.00	-
	25-34 years	352	0.69	1.67	9149	0.21	0.08	1144	0.81	0.56	2257	-0.00	0.32	618	0.66	0.24
	35+ years	46	0.58	2.10	4000	0.60	0.09	261	1.98	0.68	484	0.53	0.38	0	NA	NA
BMI	<18.5 kg/m^2 (underweight)	56	1.00	-	2573	1.00	-	123	1.00	-	94	1.00	-	112	1.00	-
	≥18.5 and 25 kg/m^2 (healthy)	320	1.68	1.20	11579	0.07	0.06	1032	0.80	0.69	1913	-0.22	0.47	1494	0.43	0.56
	≥25 kg/m^2 (overweight and obese)	47	1.10	1.75	1691	0.36	0.09	494	1.72	0.73	918	-0.46	0.49	228	0.48	0.61
Coffee consumption[*]	Less than 1 time per week	0	1.00	-	13116	1.00	-	790	1.00	-	1489	1.00	-	653	1.00	-
	1-2 times per week[$]	0	NA	NA	1309	0.27	0.08	225	0.72	0.64	410	0.60	0.26	85	1.00	0.54
	More than 3 times per week[$$]	0	NA	NA	1287	0.20	0.08	482	1.52	0.41	1083	0.91	0.20	1101	0.27	0.25
Tea consumption[**]	Less than 1 time per week	358	1.00	-	8822	1.00	-	937	1.00	-	2091	1.00	-	501	1.00	-
	1-2 times per week[$]	0	NA	NA	2335	0.07	0.07	233	-0.07	0.60	380	0.04	0.26	160	-0.14	0.39
	More than 3	65	0.32	1.16	4686	0.31	0.05	205	1.95	0.52	511	1.07	0.23	1181	0.21	0.24

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	times per week[$$]															
Tap water consumption[#]	Less than 1 time per week	101	1.00	-	10380	1.00	-	640	1.00	-	87	1.00	-	37	1.00	-
	1-2 times per week[$]	0	NA	NA	1390	0.10	0.08	80	0.56	0.83	30	-0.20	0.96	12	0.69	1.60
	More than 3 times per week[$$]	322	0.79	1.06	4073	0.25	0.05	781	0.68	0.44	2829	-0.48	0.50	1788	0.39	0.78
Bottle water consumption	Less than 1 time per week	165	1.00	-	7379	1.00	-	344	1.00	-	1800	1.00	-	NA	1.00	-
	1-2 times per week[$]	0	NA	NA	1834	-0.13	0.08	152	0.76	0.66	377	-0.20	0.25	NA	NA	NA
	More than 3 times per week[$$]	258	2.28	1.58	6630	-0.21	0.05	999	-0.89	0.48	640	-0.26	0.21	NA	NA	NA
Alcohol (when pregnancy was known)	Never	347	1.00	-	8018	1.00	-	1269	1.00	-	278	1.00	-	NA	1.00	-
	Former	43	-1.04	1.38	7320	0.15	0.05	105	0.16	0.70	2599	0.57	0.30	NA	NA	NA
	Current	2	NA	NA	505	0.81	0.13	283	-0.13	0.46	79	1.91	0.61	NA	NA	NA
Chocolate consumption[##]	Less than 1 time per week	0	1.00	-	2773	1.00	-	212	1.00	-	880	1.00	-	196	1.00	-
	1-2 times per week	0	NA	NA	4797	-0.12	0.05	174	0.39	0.71	1244	-0.19	0.20	173	0.20	0.43
	More than 3 times per week	0	NA	NA	8358	-0.23	0.05	1087	-0.70	0.52	794	-0.25	0.22	1472	-0.52	0.32
Works at home	No renovation of residential home[+]	356	1.00	-	17044	1.00	-	887	1.00	-	NA	1.00	-	NA	1.00	-
	Renovation	16	-3.22	2.20	564	0.28	0.06	616	0.33	0.35	NA	NA	NA	NA	NA	NA

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	of residential home[++]				
	Value	**Value**	**Value**	**Value**	**Value**
Intercept (α)	12.43	6.11	6.23	8.57	11.11
R^2	0.05	0.03	0.09	0.03	0.04
R^2 (adjusted)	0.00	0.03	0.08	0.03	0.04

[&]age (Germany)
[*]from leaf (Japan)
[**]green tea (China, Japan and Norway)
[#]all types of water (Germany)
[##]sweets including chocolate (Germany)
[$]weekly (France)
[$$]daily (France and China, except for coffee)
[+]after becoming pregnant (Japan)
[++]after becoming pregnant (Japan)

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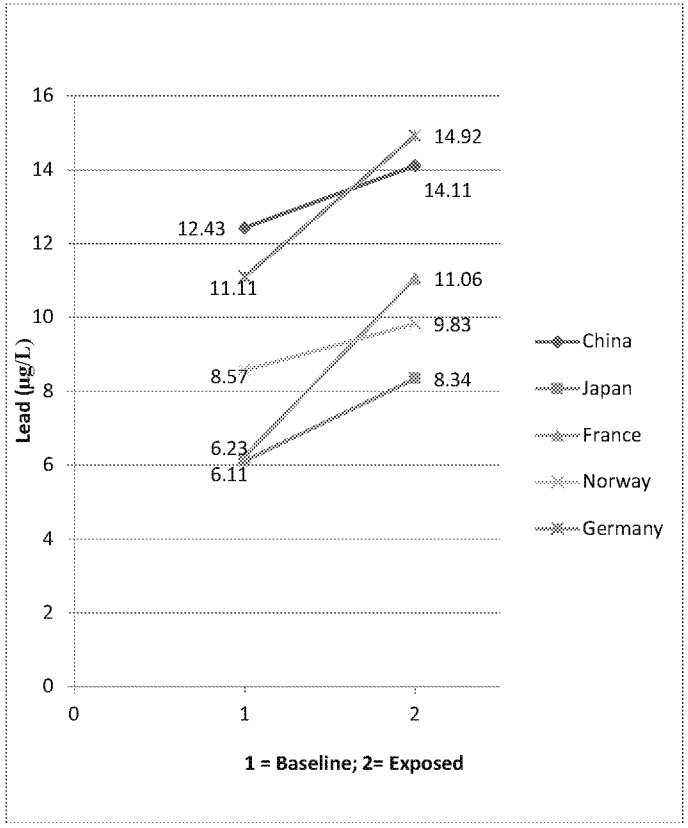

Figure 3. Change in blood lead levels by study with current smoking, age 35+ years, and being overweight or obese, in comparison to women who never smoked and have no passive exposure, are aged <25 years, and are underweight

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Supplementary Information to

Benefits of cooperation between large-scale cohort studies and human biomonitoring projects in environmental health research: An exercise in blood lead analysis

1. Environment and Child Health International Birth Cohort Group (ECHIBCG)

The current ECHIBCG consists of:

- The Danish National Birth Cohort (DNBC),
- The Etude Longitudinale Française depuis l'Enfance (ELFE),
- The German Environment Ministry and the German Environment Agency,
- The Japan Environment and Children's Study (JECS),
- The Norwegian Mother and Child Cohort Study (MoBa),
- The Shanghai Birth Cohort Study (SBC) and
- The United States Environmental Protection Agency

2. Study design, samples sizes and biomonitoring methods

Key characteristics of the studies represented in the ECHIBCG are described below and summarized in Table S1.

Danish National Birth Cohort Study

The Danish National Birth Cohort Study (DNBC) is

Etude Longitudinale Française depuis l'Enfance

The Etude Longitudinale Française depuis l'Enfance (Elfe) is to understand how the environment, from pre-birth to late adolescence, affects the child's development, health, socialization, and school career. The ultimate goal of Elfe is to produce knowledge that will improve the health and well-being of all children. The study is being led by a joint unit between the French National Institute of Demographic Studies (INED), the National Institute of Health and Medical Research (INSERM), and the Blood Agency (EFS). Initial funding for the recruitment and first follow-up sweeps study was

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provided by the Ministries of Health, Environment and Research through a 'Large Infrastructure' Program; follow-up after 2 years is funded by the French national 'Investment for the future' program.

The recruitment occurred in 4 waves totalizing 25 days over 2011. Eligible infants had to be born on an 'Elfe' day in randomly selected maternities, be more than 33 weeks of gestation, a single or twin birth, and mother older than 18 years and able to sign consent. A pilot study was undertaken in 2007 to assess feasibility, acceptability, and pertinence. The full study, launched in the field at the end of March 2011, has recruited 18,329 infants and 18,040 mothers. Biological samples have been collected from 1,000 to 3,000 births. Follow-up data collections have been performed at the 2-month, 1, 2, 3 and 5.5 years with participation rate ranging from 90% to 75%. A second round of biological sample collection have been organised during at 3.5 years in 2,000 children.

Elfe objectives focus on key issues that are 1) the consequences of the children health development and socialization of major societal changes such as changes in family structures, labour casualization, use of new technologies 2) the multifactorial determinants of the child school career 3) the early environmental, nutritional and psychosocial exposures in the context of the developmental origin of adult health and diseases theory 4) understanding social health inequalities.

Among environmental exposures, the Elfe project aims to identify pollutants currently causing concern (flame retardants, phthalates, bisphenol A, pesticides, heavy metals, indoor and outdoor air pollutants) that present a short- or long-term risk for vulnerable persons (pregnant women, unborn babies, young children) at concentrations currently observed in France. The study data will also provide information on ways of reducing this risk. Contaminants are measured at birth in maternal and cord blood as part of the perinatal part of the French biomonitoring plan.

Germany

How we describe Germany participation?

Commented [CA23]: I suggest to mention role of coordinator of HBM4EU that also aims for making use of the large number of EU cohorts and biobanks for (children's) environmental health. Moreover, experience from GerES and ESB is provided to ECHIBCG. Would that be OK?

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Japan Environment and Children's Study

The Japan Environment and Children's Study (JECS) started the recruitment of pregnant women in January 2011 and concluded in March 2014. The study enrolled more than 103,000 participants in Japan and will follow them for 13 years. The study organization is led by the Ministry of the Environment, National Institute for Environmental Studies, among other stakeholders, including 15 Regional Centres (locations of the study nationwide). Funding for the study is provided by the Japanese parliament.

The study will investigate environmental exposure during the foetal, infant, and early childhood stages and how they adversely affect children's health. The main emphasis will be given to environmental chemicals such as persistent organic pollutants (POPs; dioxins, PCBs, organofluorine compounds, flame retardants, etc.), heavy metals (mercury, lead, arsenic, cadmium, etc), endocrine disruptors (bisphenol A, etc), agrichemicals, volatile organic compounds (benzene, etc). Genetics, socio-economics and lifestyle information will also be examined.

Main outcomes will include physical development (preterm birth, low birth weight, development after birth, etc), congenital anomalies (hypospadias, cryptochidism, cleft lip, cleft palate, spina bifida, digestive tract obstruction, ventricular septal defects, Down's Syndrome, etc), sexual differentiation abnormalities (sex ratio, genital development impairment, sexual differentiation of the brain, etc), psychoneuro-development disorders (autism, learning disorders, attention-deficit/hyperactivity disorder (ADHD), etc), immune system disorders (paediatric allergies, atopic dermatitis, asthma, etc), endocrine / metabolic abnormalities (lowered glucose tolerance, obesity, etc.).

Norwegian Mother and Child Cohort Study

The Norwegian Mother and Child Cohort Study (MoBa) is a prospective population-based pregnancy cohort study conducted by the Norwegian Institute of Public Health. Participants were recruited from all over Norway from 1999–2008, and 40.6% of the invited women consented to participate. The cohort now includes some 114,500 children, 95,200 mothers and 75,200 fathers. MoBa includes

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information from The Medical Birth Registry of Norway, which comprises data on all births in Norway. The mothers were recruited in the first trimester and they filled in three questionnaires during pregnancy, including an extensive food frequency questionnaire. Additionally, child development is continuously followed through questionnaires at intervals since birth, and through linkage to national registries (e.g. the Norwegian Patient Registry on clinical diagnoses and the Norwegian Prescription Database for dispensed drugs). The current study is based on n=2,984 pregnant women from the MoBa-ETox subsample which is part of the first phase of the Norwegian Human Environmental Biomonitoring Program.

Shanghai Birth Cohort Study

The aim of the Shanghai Birth Cohort Study (SBC) is to study the effects of genetic, environmental and behavioural factors on women's reproductive health, pregnancy outcome, child growth and development, and risk of diseases. The study is being led by the Ministry of Education—Shanghai Key Laboratory of Children's Environmental Health, Shanghai Jiao Tong University School of Medicine, Shanghai, China. Funding for the study is provided by the Shanghai Municipality Bureau of Health.

The first phase of the study will recruit 4,000 women planning pregnancy or in early gestation. To be included in the study, women must be 20 years of age or older, planning to be pregnant and to received prenatal care and give birth in a participating hospital, registered residents of Shanghai municipality, have lived in Shanghai in the past 2 years, and not plan to move out of the catchment area in the next 2 years. Women who have tried to conceive spontaneously for more than 12 months will not be included in the preconception cohort. However, if they become pregnant by all means later, they can be enrolled at early gestation. Participants and their children will be followed up until at 1st, 2nd, 3rd trimesters, at birth, and at 42 days postpartum, 6 months, 1 year the children are 2 years of age, ideally longer, depending on funding. Recruitment for the cohort study will take place in the

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hospital, which will give maximum efficiency. Women who do not come for preconception care can still be recruited in early gestation. Enrolment began in April of 2013.

The SBC study uses interviewer administered questionnaires. Women planning pregnancy will be asked to spend about 1 hour while in the hospital for preconception care or first prenatal care answering the interviewer's questions and biological sample collection. The latter includes venous blood, cord blood, urine, nails, breast milk, semen, placenta, buccal swab and hair. A subcohort of 1,000 more cooperative volunteers will be involved in a more detailed study of nutrition and home environmental exposure. Their home will be visited by a research team and their household dust, drinking water and indoor air samples will be collected for measurement of environmental pollutants of interest.

The US Environmental Protection Agency

How we describe Ruth's participation?

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Table S1. Study design and key characteristics of the ECHIBCG members (Study design, samples sizes and biomonitoring methods)

	Danish National Birth Cohort (DNBC)	Etude Longitudinale Française depuis l'Enfance (Elfe)	German Environmental Specimen Bank (ESB)	Japan Environment and Children's Study (JES)	Norwegian Mother and Child Cohort Study (MoBa)	Shanghai Birth Cohort Study
Design		Prospective birth cohort	Annually repeated cross-sectional, self-selection sampling (volunteers)	Prospective birth cohort	Prospective birth cohort	Prospective birth cohort
Size		18 040 mothers 18 329 newborns 287 twin pairs	approx. 120 per year (60 female, 60 male)	103,099 mothers 100,108 children 51,909 fathers	95,200 mothers 114,500 children 75,200 fathers	4606 mothers 3692 livebirths
Sample size for the lead analysis		1670	1842	17998	2982	423
Planned? follow up		20 years of age	No follow up of participants	13 years of age	Rest of life	At least 10 years of age

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Last completed follow-up	7 years				
Location	Mainland France	Münster, Greifswald, Halle/Saale, and Ulm	Japan	Norway	Shanghai municipality
Completed evaluation cycle	Birth 2 months 1 year 2 years 3,5 years 4-5 years (school survey) 5,5 years 6-7 years (school survey)	Singular sampling	Pregnancy: First trimester, second–third trimester Birth 1 month 6 months every 6 months till 12 years	Pregnancy: GW 17, 22, 30. Birth, 6mo, 18mo, 3, 5, 7, 8, 14 years.	Pregnancy: 1st, 2nd, 3rd trimester, birth, 6 weeks, 6 months, 1, 2, 4, 7, 10 years.
Completed?	Sub cohort 1500-	Whole blood, blood	Main cohort:	Maternal blood and	Maternal blood,

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Biomonitoring	3000) Maternal blood (birth) Maternal urine (birth) Maternal colostrum (birth) Maternal hair (birth) Cord blood Meconium Child urine (3,5 years) Child stool (birth, 12-18 months, 3,5 years) Child hair (3,5	plasma, and 24h-urine	Maternal blood (first trimester, second–third trimester, at birth) Maternal urine (first trimester and second–third trimester) Maternal hair and breast milk (1 m) Cord blood Child hair and dried blood spot (1 m) Paternal blood (ad libitum) Child urine (8 y) Child blood and	urine week 17 in pregnancy. Cord blood.	maternal urine, maternal hair, cord blood, placenta, cord tissue, child hair, dried blood spot, father's buccal swab, child urine and blood (2 y and 4 y)

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	years)		urine (12y) Sub-cohort (5,000): Child blood (2 y) Child blood and urine (4, 6, 8, 10 and 12 y)		
Date and type of sampling for lead	Cord blood	Whole Blood Women (aged 20-29), from 2010-2016	Maternal blood (mid–late trimester) 2011–2014	Maternal blood, week 17 of pregnancy	Cord blood 2014 - 2015
Funding	Ministries of health, environment, research, culture, National institute for youth and education, Familial allowance national	German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety	Ministry of the Environment	The Norwegian Ministry of Health and the Ministry of Education and Research, NIH/NIEHS	Shanghai Bureau of Health

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	fund, National research agency (Investment for the future call)				
Website	www.elfe-france.fr	www.umweltprobenbank.de/en/	www.env.go.jp/en/chemi/hs/jecs/	https://www.fhi.no/studier/moba/	www.shyousheng.net

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Target journal: International Journal of Hygiene and Environmental Health

Benefits of cooperation between large-scale cohort studies and human biomonitoring projects in environmental health research: An exercise in blood lead analysis

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1) We may put our working group name in the title.
2) The main scientific significance of this article is a comparison of blood lead levels across countries and the factors contributing to the concentrations.
More straightforward title might be possible, though the source of the blood
(population) is different between the countries.

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Number of figures and tables: X figure and Y tables

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Keywords: Biomonitoring; birth cohort; lead; harmonisation; XXX; YYY

Chemical compounds studied in this article: Lead (PubChem CID: 5352425)

Highlights

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ED_002399_00019205-00002

Abstract

Background

Methods

Results

Conclusion

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1. Introduction

Foetal and neonatal exposure to chemical substances may lead to adverse health effects in later life such as developmental disorders, immune system dysfunction and hormone disruptions (Barouki et al., 2012; Grandjean et al., 2008). Birth cohort studies are one of the major tools to identify these associations between the environment and children's health and when possible confirm causalities. In the past decades, many birth cohort studies have been conducted to investigate the impact of a variety of chemical substances (Barbone et al., 2018; Botton et al., 2016; Boucher et al., 2009; Casas et al., 2015; Clemente et al., 2016; Huang et al., 2016; Iszatt et al., 2015; Perera et al., 2006; Pilsner et al., 2009; Rauh et al., 2011; Shelton et al., 2014). However, those individual studies are inconclusive and insufficient to prove causal relationship between the exposure and health outcomes mainly due to a lack of statistical power. To overcome this dilemma, large scale birth cohort studies were initiated in the late 1990's in Norway and Denmark (Magnus et al., 2016; Olsen et al., 2001). The United States, Japan, France, UK and South Korea followed, however, the US and UK studies were terminated early (Branum et al., 2003; Dereumeaux et al., 2017; Kawamoto et al., 2014; Kishi et al., 2011; Lee et al., 2017; Vandentorren et al., 2009). These studies involve each 20,000–100,000 participants and thus are considered large enough to investigate the relationship between the environment and common outcomes in children's health and development. However, when it comes to rare diseases such as childhood cancers, type-1 diabetes, congenital anomalies or sudden infant death syndrome (SIDS), none of those studies has sufficient statistical power by itself. The number of 100,000 may also fall short when looking at the effect of multiple environmental factors at the same time, e.g. a collective effect of lead, mercury, cadmium, persistent organic pollutants (POPs), pesticides and some other compounds of emerging concerns such like perfluorinated alkyl substances, phthalates and parabens on children's neuro/psychiatric development.

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One way of increasing statistical power is to perform a meta-analysis of multiple study results (Huang et al., 2016). Acquiring information on links between children's health and environmental exposures by meta-analysis of data from different birth cohort studies poses a number of challenges: Studies on environmental health employ a variety of instruments, including for health and development,

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questionnaires, in-person or phone interviews, physical examinations, clinical tests and for environmental exposures, ~~questionnaires~~ interviews, environmental monitoring or sampling modelling and biomonitoring. Especially for exposure assessment, it is often harder to compare data across the studies, due to non-standardized procedures used in each study. For instance, each study may very well employ different sampling and analytical methods for biomonitoring. Even if they use exactly the same methods, each laboratory performs in different analytical qualities. To overcome such problems in meta-analysis, birth cohort consortia have been formed to aim pooled analysis or mega-analysis instead of meta-analysis. Examples are the International Childhood Cancer Cohort Consortium (I4C) (Brown et al., 2007), Environmental Health Risks in European Birth Cohorts (ENRIECO) (Gehring et al., 2013) and Birth Cohort Consortium of Asia (BiCCA) (Kishi et al., 2017). In order to pool each study's data, a key is data or method harmonisation that should involve pre-standardisation of study procedures such as questionnaires, physical/developmental examinations, clinical tests and laboratory analyses or post-normalisation of existing data.

Our group, the Environment and Child Health International Birth Cohort Group (ECHIBCG) (Etzel et al., 2014), has been exercising the harmonisation of study methods and aims at harmonizing data including infant health outcomes, biomarkers, environmental measurements, socioeconomic and migration status. Recently, we have focused on chemical exposure measurements by identifying priority chemicals; comparing about each study's questionnaire and laboratory methodologies; and conducting inter-laboratory procedural tests. In order to make data comparable, retrospective harmonisation is as important as prospective harmonisation since in most cases data are already collected. Here we report our joint exercise in ad hoc data harmonisation taking lead (Pb) as an example contaminant. Based on a comparison of each study's method procedures, results of a round-robin practices, and findings of a joint data ~~on~~ analysis on~~of~~ potentially relevant factors influencing maternal internal exposures across countries, we present our lessons learned with respect to co-operation of birth cohort studies on environmental health research.

2. Materials and methods

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2.1. Participating studies and organisations

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In late 2011, the Japan Ministry of the Environment (JMOE) invited investigators associated with some large-scale 21st century birth cohort studies to discuss about how to better design the assessment of disease outcomes, biomarkers and environmental exposures. Investigators from various large-scale cohort studies discussed about the benefit of data pooling among the studies and need of study harmonisation (Ishitsuka et al., 2017). The JMOE suggested that it would be useful to establish working groups to define a list of core elements for inclusion in the harmonisation. Such core elements could include disease outcome definitions, biomarkers and exposure measurements. A working group was therefore proposed to discuss and exchange information about ongoing and forthcoming large-scale birth cohort studies and national bio-/environmental monitoring projects. Experts from new large-scale studies of environmental influences on children's health and development that are currently being planned or conducted in France, Germany, Japan, Shanghai (China) and the United States constituted the Environment and Child Health International Birth Cohort Group (ECHIBCG) in 2011 (Etzel et al., 2014). Later, Denmark and Norway joined and the International Agency for Cancer Research (IARC) became the secretariat of the group. The current ECHIBCG consists of the Danish Birth Cohort Study (DNBC) (Olsen et al., 2001), the Etude Longitudinale Française depuis l'Enfance (Elfe) (Dereumeaux et al., 2017; Vandentorren et al., 2009), the German Environment Ministry and German Environment Agency, the Japan Environment and Children's Study (JECS) (Kawamoto et al., 2014), the Norwegian Mother and Child Study (MoBa) (Magnus et al., 2016), the Shanghai Birth Cohort Study (SBC) (Zhou et al., 2017) and the United States Environmental Protection Agency (the information of the member studies is summarised in the Supplementary Information and Table S1). Elfe, the Environmental Specimen Bank (ESB) from Germany (Kolossa-Gehring et al., 2012), JECS, SBC and MoBa provided data for this exercise.

2.2. Round-robin test procedures

Commented [SFN6]: I wonder if we could gather results from G-EQUAS participation. That could give us whole laboratory participation even including Norway and Shanghai.

The group undertook an inter-laboratory comparison (round-robin) project in 2014 for blood Pb analysis. Participating~~ed~~ laboratories were three from Japan, one each from France and Germany. The group first examined each country's custom regulation for the transportation of frozen blood samples.

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Second water samples were sent to France and Germany on dry ice and with temperature loggers to evaluate the transportation process. The group used ~~an~~ JECS in-house reference material (JECS RM, details described in the Supplementary Information) for whole blood round-robin tests among France, Germany and Japan. Four vials of the JECS RM (2-ml polypropylene cryo-vials with 2-D barcode on the bottom) were shipped to each designated laboratory or facility in France, Germany and Japan. The vials were placed in a secondary container (polypropylene) that was packed in a plastic bag. The sample containers were then set in a Styrofoam box that contained a few kg of dry ice. A temperature logger was placed on top of the samples. Upon receipt, the participating laboratories visually observed the sample condition and filled out a shipment evaluation sheet. Each laboratory sent the completed evaluation sheet and the temperature logger back to JECS Programme Office where the information was examined and compiled.

The JECS RM were kept in its original vials and stored frozen at or below negative 20°C until use. Freezers were temperature controlled and monitored with limited temperature fluctuation. Before use, a frozen sample was allowed to thaw at room temperature. The sample was mixed by gently rocking or mildly swirling (not shaking) the vial to remix any water that may have separated on freezing. Each laboratory analysed all 4 vials in at least 3 replicates for lead using its own methods. The laboratories were provided with an electronic reporting format, in which they reported the results of the analysis including concentrations, method summary description and method performance characteristics. The laboratory analytical procedures involved in this trial are shown in Table 1.

2.3. Blood lead measurements and covariate data acquisition

Lead levels were determined in mothers' whole blood during pregnancy in Japan and Norway, ~~in the women's~~ in whole blood in Germany (~~female ESB participants,~~ non-pregnant women), and in cord blood in China and France. All measurements were above detection limits. Detection limits varied across studies, with the lowest limit in Norway with 0.08 μg l^{-1} and the highest limit in France with 0.6 μg l^{-1}. The timing of the blood collection also varied across studies; for Japan it was 2011–14, Norway 2002–08, France 2011, China 2014–15, and Germany 2010–~~17~~16. No calibrations were made

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for whole blood vs cord blood or for the time period, as it was not possible to quantify the possible impact due to lack of comparison data. All Pb levels were harmonized to the unit of $\mu g\ l^{-1}$.

Possible explanatory factors of maternal lead levels as identified in a stepwise process (described in the following section) were acquired from questionnaires developed by each study and had to be harmonized across studies. Selected explanatory factors at the time of sampling were maternal smoking [current, former (stopped at least X years before sampling), not active but passive smoking in household, and never smoking including no current passive smoking]; maternal age (categorized into < 25 years, 25–34 years, 35+ years); maternal body-mass-index (BMI) [categorized into < 18.5, 18.5–25, and 25+ kg/m^2 (overweight or obese, as the latter group included too few subjects in most studies)]; consumption of coffee, tea, tap water, or bottled water (all in categories less than once, 1–2 times, 3+ times per week); alcohol drinking [current when pregnancy was known, former (stopped before pregnancy or as soon as known), never]; chocolate consumption (categorized into less than once, 1–2 times, 3+ times per week) and whether renovation works at home took place during pregnancy. In Germany, variables referring to pregnancy referred to the sampling time period, as sampled population were non-pregnant women. Education was kept in the final model for adjustment in the original categories, usually from low to high in several steps, as studies came from different parts of the world and the attempts to harmonise were not meaningful. Other harmonised variables not kept in the final analytical model were sex of offspring, pre-term or term pregnancy, or parity (first vs later born child) (all not relevant for Germany), as well as consumption of bread, dairy products, seafood, or vegetables, and year of construction of the house where the women lived. Slight compromises had to be made in variables related to foods consumption, as dietary questions were not identical. In China, Japan and Norway the item "tea" consisted of only green tea while it was different types of tea in France and Germany. In Japan, coffee consumption was specified as only from beans and green tea as only from leaves. In France, units of coffee and tea consumption were measured in less than once, once, or 2+ times per week.

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Commented [CA8R7]: In German ESB, no such definition has been used. Just self-reported "former smoker".

2.4. Statistical analysis

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As all of the studies had to follow their own countries/regions' data protection rules/legislations, most of the studies were not able to share the data with others. Thus, we employed de-centralised data analysis.

The first step was a descriptive analysis, obtaining univariate statistics by study, e.g. mean, median and percentiles. For visualisation, we created a boxplot-like figure where the 10th and 90th percentiles were used as whiskers, the 1st (25th percentile) and 3rd quartile (75th percentile) as the box range, the median (50th percentile) as box separator, and the 99th percentile as external extra asterisk, rather than the common boxplot definition, to avoid distraction by outliers as we aimed at a visual comparison of majority of measured values across studies.

The second step was to identify common factors influencing blood Pb levels, with the identification of possibly relevant factors through two mechanisms. First, we did a literature search looking for factors being established in at least one publication as influencing blood Pb levels and that had been assessed in at least the majority of our studies. Second, studies analysed their own data and selected factors having influence on the Pb level, irrespective of the magnitude. From this list, a first stage linear model was developed including all factors on the combined list. From this run, all variables that did not lead to at least 20% change in Pb levels in at least one of the studies were removed. This final model was applied independently to each study to obtain the coefficients of the individual explanatory factors and their uncertainty, as well as the unadjusted and adjusted R^2 of the model, indicating the percentage variation in Pb levels explained by the model (final selection of variables described in the previous section). The 20% change-criterion for choosing variables was preferred over the p-value due to the highly varying sample sizes across studies; while for Japan even tiny changes became formally statistically significant, this was only the case for major changes in China, for instance. Finally, we applied to the data the coefficients for smoking, maternal age and BMI, which were the relevant explanatory factors with highest comparability across studies, to compare predictions of how much Pb levels increase on average with exposure to current smoking, high maternal age, and high BMI in the individual studies.

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Instructions for analyses were developed at the IARC together with the study principal investigators, to make sure the approach was identical; afterwards analyses were carried out de-centrally, as mentioned above. All studies had national ethical clearance.

3. Results

3.1. Inter-laboratory comparison

All laboratory used the inductivity coupled plasma mass spectrometry (ICP-MS) method with slightly different sample pre-treatment procedures. The result of the round-robin trial is illustrated in Figure 1. French and German laboratories reported the mean Pb concentrations of 8.71 and 8.27 μg l^{-1} with relative standard deviations (RSDs) of 2.9% and 2.5%, respectively. Three Japanese laboratories showed mean concentrations of 8.76, 8.83 and 8.75 μg l^{-1} with RSDs of 1.1%, 0.8% and 0.8%, respectively. Overall mean concentration was 8.66 μg l^{-1} (95% confidence interval: 8.59–8.72 μg l^{-1}) with 3.0% RSD.

Commented [SFN9]: Need info from Germany

Commented [CA10R9]: We asked Thomas Göen to fill in Table 1.

3.2. Current blood lead levels

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Each study using each own method reported Pb concentrations in cord blood or whole blood samples. Numbers of available samples differed greatly by study, with 17,998 samples from Japan, 2,982 from Norway, 1,842 from Germany, 1,670 from France, and 423 from China. Distributions of Pb levels by study are displayed in Figure 2. With the exception of China, median values were close to or lower than 10 μg l^{-1} and 90th percentiles close to or lower than 20 μg l^{-1}. None of the 99th percentiles exceeded 50 μg l^{-1}. Maximally measured levels were 202 μg l^{-1} in Norway, 107 μg l^{-1} in France, 103 μg l^{-1} in Germany, 80.5 μg l^{-1} in China, and 74.5 μg l^{-1} in Japan.

3.3. Determinants of blood Pb levels

Each group analysed their own data to examine determinants of blood Pb concentrations according to the same instructions as described in the previous section. Table 2 shows the results of the final model with explanatory factors having an impact of at least 20% change in average Pb levels in at least one

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study, and subsequently applied to all studies. Items shown in Table 2 include the number of subjects in each category, the coefficient of change and its standard error compared to the reference category, as well as the intercept of the model (reflecting the Pb levels by country with all explanatory factors in their reference category; bottom of the table) and the R^2 values. In line with Figure 2, the intercept shown in Table 2 confirms the lowest Pb levels in Japan and France and the highest in China and in Germany. The R^2 was below 0.1 in each study; the highest R^2 was seen in France. Current smoking increased Pb levels in all studies in a similar magnitude (including the very low number of subjects in China), except for Germany, where the increase was more pronounced. A positive association was also seen in all studies with increasing maternal age, whereas for BMI most studies showed an increase in overweight and obese women, with the exception of Norway. Patterns of coffee, tea or tap water consumption showed weaker relations, not always entirely consistent across studies, and even lesser so for alcohol, chocolate and renovation works at home (Table 2).

Figure 3 shows the change in Pb level by study of women who were never active and are no passive smokers, are aged <25 years, and are underweight compared to those who are current smokers, aged 35 years or older, and are overweight or obese. The combination of those three variables leads to an increase in Pb levels in each of the five studies, most strongly in France by almost 80% and the weakest effect being in Norway with only 15%; for Japan, with the far largest sample, the difference was 36%.

4. Discussion

4.1. Round-robin trial

The United States National Institute of Standard and Technology (NIST) standard reference material (SRM) 995c (toxic elements in caprine blood), which was certified for Pb at four concentration levels: a base level and three progressively elevated levels, was initially considered suitable for use in the round-robin trial. However, it appeared that a health certificate was required in most countries to import the SRM 955c made of goat blood. Considering that NIST was not ready to issue the certificate, the use of the SRM 955c did not seem practical. The group decided to use a JECS in-house

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265 RM made of human blood officially acquired from the Japanese Red Cross. The shipment took from 3
266 days and went well with the temperature kept below negative 60°C on dry ice. China found that it
267 could not import human materials easily. Sending samples on dry ice to China was also extremely
268 difficult and expensive. There are existing mechanisms of international laboratory accreditation such
269 as German Environmental Quality Assurance Scheme (G-EQUAS) and Canadian ….
270
271 Since Pb is a legacy contaminant, all the laboratories performed very well on the blood Pb analysis.
272 Repeatability of the measurements were satisfactory with RSD of replicate analyses being < 3% for
273 all the participated laboratories. With this precision, a common statistical practice resulted in
274 detecting statistically significant differences ($p < 0.05$) among individual laboratories' results.
275 However, such small differences are irrelevant for the anticipated data use. After pooling data from all
276 the laboratories, overall RSD was still 3.0%.
277
278 4.2. Comparison of blood Pb levels
279 The major aim of this part of the study was looking at common factors influencing blood Pb levels,
280 and some observed consistencies and some inconsistencies across the five studies from five different
281 countries are indeed of interest. The R^2 was below 10% in each study, suggesting that, albeit being
282 associated with the Pb levels, the explanatory factors have little predictive power to estimate
283 individual Pb levels. This was common across studies, although we used a very inclusive approach of
284 investigating potential explanatory factors. This suggests that general characteristics have less
285 influence on Pb blood levels than individual factors. For example on dietary-related factors, general
286 dietary patterns (e.g., how many vegetables one eats on average) has less influence on blood Pb levels
287 than the food location or the processing method of the vegetables the individual person consumes.
288 This is the likely reason why all dietary factors, including type of water consumption or beverages
289 like coffee, tea or alcohol, did not emerge as strong explanatory factors. It is an important finding
290 however, as this observation applies commonly to all countries. The main modifiable factor to lower
291 blood Pb levels appears to be quitting smoking, again consistent across countries and, to lesser extent,
292 avoiding overweight and obesity. Other consistent factors are either not modifiable, like age, or not

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recommendable to attain for health reasons, e.g. blood Pb levels were lower in underweight persons. Coffee and tea consumption led to higher blood Pb levels, of somewhat differing magnitude by country, and for us impossible to disentangle whether the underlying factor is the coffee, the tea or the water in which it is prepared. A number of dietary factors was associated with blood Pb levels in France, albeit not strongly so, but not confirmed in the other countries. Interestingly, the association was reversed for chocolate intake in several countries. Birth characteristics like gestational age, sex of the offspring or parity had no effect in any country.

Measured blood Pb levels were lowest in Japan, followed by France and Norway, somewhat higher in Germany and highest in China. This applies however to our studies and is not necessarily representative for a cross-country comparison, due to different sampling strategies of study participants and study methodologies. First, the impact of whole blood vs cord blood and sampling in slightly different time periods, as well as some analytical uncertainty as shown by the round-robin test, cannot be quantified to calibrate the measured values; in addition, differences across most countries are not very large. Second, the sample from Japan is by far the largest and has therefore considerably less random noise, possibly being the most representative. Third, certainly direct comparison with Germany and China is not straightforward. In Germany, sampled women were not pregnant and different lifestyles, living conditions and behaviours make them probably less comparable to the pregnant women of the other studies. In China, the study was only carried out in Shanghai as a metropolitan area, while the other studies included less urban environments. Nevertheless, all studies have in common that in general measured blood Pb levels were low, with very few exceptions exceeding 50 µg l^{-1}.

Commented [CEG13]: Michi: 'Study (strength and) limitation'

4.3. Implication of the harmonisation exercise

We demonstrated the possibility of the harmonisation of chemical biomonitoring data by using a reference material. The data can be compared and pooled in reference to the measurement results of the reference material, even though each study employs its own analytical protocols and own laboratory and performs the analysis in different time and places. Our practice also showed the

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usefulness of a round-robin exercise to illustrate the performance of each study analysis. We knew that each study used laboratories having accreditations for the particular analysis or having participated in an external quality assurance programme such as the German External Quality Assessment Scheme (G-EQUAS). However, that was not sufficient to evaluate the comparability of the analysis data among the group. The round-robin results demonstrated the importance of the use of reference materials in each study in order to pool the data afterwards.

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Also the data harmonisation in ECHIBCG confirms experiences from other epidemiological consortia, namely that some precision in items needs to be sacrificed for the creation of joint variables. This applies to some extent already to variables having exactly the same meaning in each study, e.g. maternal age, when assessed categorically and those categories differ across countries. It ~~is~~ becomes an even bigger challenge for variables seemingly the same but reflecting slightly different habits in different countries; e.g. fish and seafood consumption across diverse countries such as France, Norway, Germany, China and Japan does not necessarily mean exactly the same type of fish or seafood. The likely effect of collapsing categories, broadening definitions or lumping precise definition into broader groups, is a potential dilution of associations, if they exist; in our case, the association between Pb blood levels and their possible explanatory factors. Evidently, this is inherent in the design, namely the conduct of independent national studies and their multinational pooling, and the overall gain in statistical power as well as the opportunity to identify study-specific associations outweighs the limitations from compromises made at harmonisation stage.

5. Conclusions

Commented [CEG15]: Michi:
To improve the clarity

Commented [CEG16]: Except Germany, right?

Commented [CA17R16]: Yes. Suggestion: "... of five HBM studies to investigate..."

In this first project of the ECHIBCG, a newly established consortium of five prospective cohort studies to investigate environmental risk factors in rare disease in children, we compared blood Pb levels across those five countries and evaluated potential explanatory factors of increased levels. First purpose was to demonstrate that the laboratory analytical methods were sufficiently similar to allow direct comparison of data, as well as demonstrating that it is possible to harmonize the epidemiological data for joint analysis. From this perspective, the exercise was successful and encourages further joint projects. Second purpose comparing Pb levels did not reveal many strong

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explanatory factors, which however was consistent across countries. With the exception of smoking leading to higher Pb levels, other factors appear to be more modestly related or differ by country. Our data suggests Pb levels are more influenced by individual-level factors than by population-level characteristics.

Acknowledgement

The US National Children's Study (NCS) was initially a member of the group and played a significant role. The ECHIBCG acknowledges the NCS for sharing various methods and procedures and providing many in-kind contributions to the group including a teleconference facility and translation capacity. The Norwegian Mother and Child Cohort Study are supported by the Norwegian Ministry of Health and Care Services and the Ministry of Education and Research, NIH/NIEHS (contract no N01-ES-75558), NIH/NINDS (grant no.1 UO1 NS 047537-01 and grant no.2 UO1 NS 047537-06A1). We are grateful to all the participating families in Norway who take part in this ongoing cohort study.

…

The ECHIBCG scientific secretariat at the International Agency for Research on Cancer (IARC) is supported by funding from the Ministry of Environment, Japan, and from the Ministry of Environment, Nature Preservation and Nuclear Safety, Germany.

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Table 1. Summary of the analytical procedures employed in the laboratories participated in the round-robin trial.

	France	Germany	Japan
Sample preparation	Samples (300 µl) were transferred into a 13-ml polypropylene tube and mixed with 2700 µl dilution solution. Dilution solution was made by adding 10 ml 25% NH_4OH, 250 mg EDTA dipotassium salt and 250 µl Triton X-100 into a volumetric flask and filled up to 500 ml with double distilled water.	Samples (300 µl) were transferred into a 13-ml polypropylene tube and mixed with 2700 µl dilution solution. Dilution solution was made by adding 10 ml 25% NH_4OH, 250 mg EDTA dipotassium salt and 250 µl Triton X-100 into a volumetric flask and filled up to 500 ml with double distilled water.	Samples (200 µl) were diluted (1:19) with the dilution solution and vortex mixed. Dilution solution consisted of 2% v/v butan-1-ol, 0.1% TMAH, 0.5 g l^{-1} POE and 0.5 g l^{-1} H_4EDTA
Instrumental analysis	ICP-MS (Agilent Technologies 7500) with ASX 500 auto-sampler	ICP-DRC-MS (Agilent 7500) with ASX 500 auto-sampler	ICP-MS (Agilent 7700 ICP-MS) with auto-sampler
Calibration and calculation	External calibration was used. The limit of quantitation was 0.15 µg l^{-1}.	External calibration was used. The limit of quantitation was 0.15 µg l^{-1}.	External calibration was used. The limit of quantitation was 0.14 µg l^{-1}.

Commented [CA20]: We asked Teresa Oven to fill in the table.

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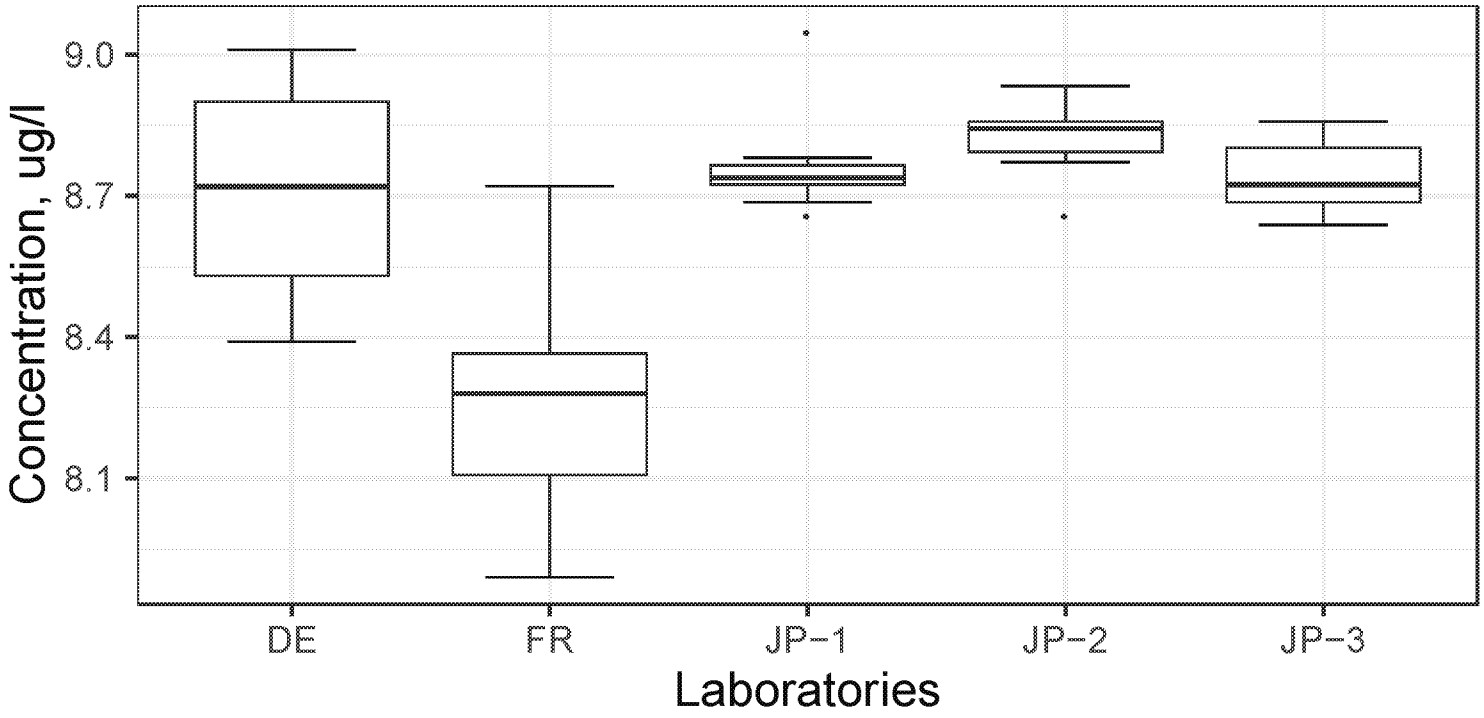

Figure 1. Round-robin test result for lead analysis.

Boxplots were depicted using 1.5 times the interquartile range as whiskers, interquartile range as the box ranges and the median as the box separators.

Abbreviations: DE, Germany; FR, France; JP, Japan.

Figure 2. Plot of lead level distributions by study visualized in boxplot-like shapes showing the 10th, 25th, 50th, 75th, 90th and 99th percentile.

Commented [上島21]: The order of country may be the same throughout the Tables and Figures for better understanding of the readers of this article.

Commented [CA22R21]: I agree, we should have a consistent order throughout the manuscript.

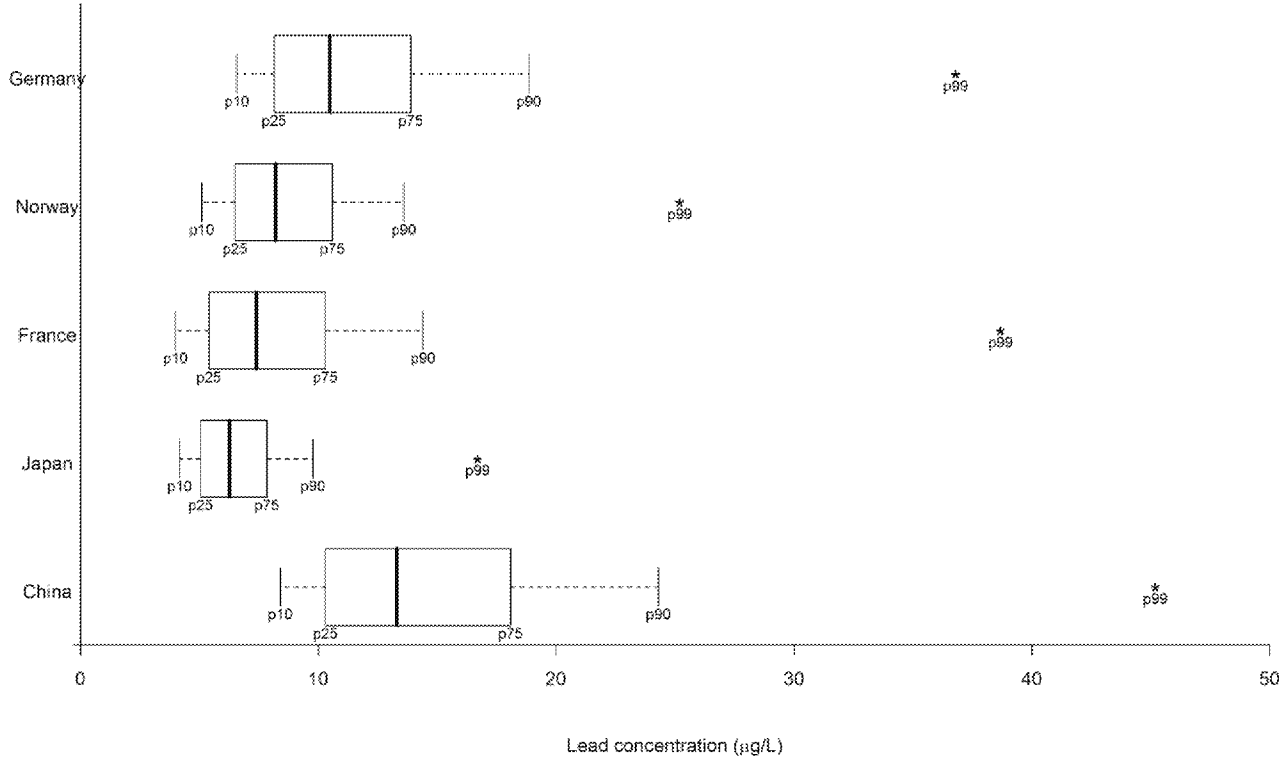

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Table 2. Analyses of factors influencing lead concentration in blood by study, showing the numbers in categories, the regression coefficient and its standard error, and the intercept and unadjusted and adjusted R^2 at the bottom of the table

		Shanghai Birth Cohort Study			Japan Environment and Children's Study (JECS)			Etude Longitudi- nale Française depuis l'Enfance (Elfe)			Norwegian Mother and Child Cohort Study (MoBa)			German Environmental Specimen Bank (ESB)		
Variable		N	β	S.E.	N	β	S.E.	N	β	S.E.	N	β	S.E.	N	β	S.E.
Smoking	Never	335	1.00	-	7032	1.00	-	701	1.00	-	1552	1.00	-	1081	1.00	-
	Passive	74	1.43	0.88	2894	0.17	0.07	20	0.08	1.87	100	0.35	0.46	332	0.84	0.30
	Former	12	3.98	2.60	6729	0.34	0.05	399	-0.09	0.42	1157	0.20	0.19	200	1.65	0.36
	Current	2	NA	NA	884	1.27	0.11	380	1.13	0.49	173	1.19	0.39	213	3.33	0.35
Maternal age[&]	<25 years	25	1.00	-	1403	1.00	-	255	1.00	-	241	1.00	-	1224	1.00	-
	25-34 years	352	0.69	1.67	9149	0.21	0.08	1144	0.81	0.56	2257	-0.00	0.32	618	0.66	0.24
	35+ years	46	0.58	2.10	4000	0.60	0.09	261	1.98	0.68	484	0.53	0.38	0	NA	NA
BMI	<18.5 kg/m^2 (underweight)	56	1.00	-	2573	1.00	-	123	1.00	-	94	1.00	-	112	1.00	-
	≥18.5 and 25 kg/m^2 (healthy)	320	1.68	1.20	11579	0.07	0.06	1032	0.80	0.69	1913	-0.22	0.47	1494	0.43	0.56
	≥25 kg/m^2 (overweight and obese)	47	1.10	1.75	1691	0.36	0.09	494	1.72	0.73	918	-0.46	0.49	228	0.48	0.61
Coffee consumption[*]	Less than 1 time per week	0	1.00	-	13116	1.00	-	790	1.00	-	1489	1.00	-	653	1.00	-
	1-2 times per week[$]	0	NA	NA	1309	0.27	0.08	225	0.72	0.64	410	0.60	0.26	85	1.00	0.54
	More than 3 times per week[$$]	0	NA	NA	1287	0.20	0.08	482	1.52	0.41	1083	0.91	0.20	1101	0.27	0.25
Tea consumption[**]	Less than 1 time per week	358	1.00	-	8822	1.00	-	937	1.00	-	2091	1.00	-	501	1.00	-
	1-2 times per week[$]	0	NA	NA	2335	0.07	0.07	233	-0.07	0.60	380	0.04	0.26	160	-0.14	0.39
	More than 3	65	0.32	1.16	4686	0.31	0.05	205	1.95	0.52	511	1.07	0.23	1181	0.21	0.24

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	times per week[$$]															
Tap water consumption[#]	Less than 1 time per week	101	1.00	-	10380	1.00	-	640	1.00	-	87	1.00	-	37	1.00	-
	1-2 times per week[$]	0	NA	NA	1390	0.10	0.08	80	0.56	0.83	30	-0.20	0.96	12	0.69	1.60
	More than 3 times per week[$$]	322	0.79	1.06	4073	0.25	0.05	781	0.68	0.44	2829	-0.48	0.50	1788	0.39	0.78
Bottle water consumption	Less than 1 time per week	165	1.00	-	7379	1.00	-	344	1.00	-	1800	1.00	-	NA	1.00	-
	1-2 times per week[$]	0	NA	NA	1834	-0.13	0.08	152	0.76	0.66	377	-0.20	0.25	NA	NA	NA
	More than 3 times per week[$$]	258	2.28	1.58	6630	-0.21	0.05	999	-0.89	0.48	640	-0.26	0.21	NA	NA	NA
Alcohol (when pregnancy was known)	Never	347	1.00	-	8018	1.00	-	1269	1.00	-	278	1.00	-	NA	1.00	-
	Former	43	-1.04	1.38	7320	0.15	0.05	105	0.16	0.70	2599	0.57	0.30	NA	NA	NA
	Current	2	NA	NA	505	0.81	0.13	283	-0.13	0.46	79	1.91	0.61	NA	NA	NA
Chocolate consumption[##]	Less than 1 time per week	0	1.00	-	2773	1.00	-	212	1.00	-	880	1.00	-	196	1.00	-
	1-2 times per week	0	NA	NA	4797	-0.12	0.05	174	0.39	0.71	1244	-0.19	0.20	173	0.20	0.43
	More than 3 times per week	0	NA	NA	8358	-0.23	0.05	1087	-0.70	0.52	794	-0.25	0.22	1472	-0.52	0.32
Works at home	No renovation of residential home[+]	356	1.00	-	17044	1.00	-	887	1.00	-	NA	1.00	-	NA	1.00	-
	Renovation	16	-3.22	2.20	564	0.28	0.06	616	0.33	0.35	NA	NA	NA	NA	NA	NA

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	of residential home[++]				
	Value	**Value**	**Value**	**Value**	**Value**
Intercept (α)	12.43	6.11	6.23	8.57	11.11
R^2	0.05	0.03	0.09	0.03	0.04
R^2 (adjusted)	0.00	0.03	0.08	0.03	0.04

[&]age (Germany)
[*]from leaf (Japan)
[**]green tea (China, Japan and Norway)
[#]all types of water (Germany)
[##]sweets including chocolate (Germany)
[$]weekly (France)
[$$]daily (France and China, except for coffee)
[+]after becoming pregnant (Japan)
[++]after becoming pregnant (Japan)

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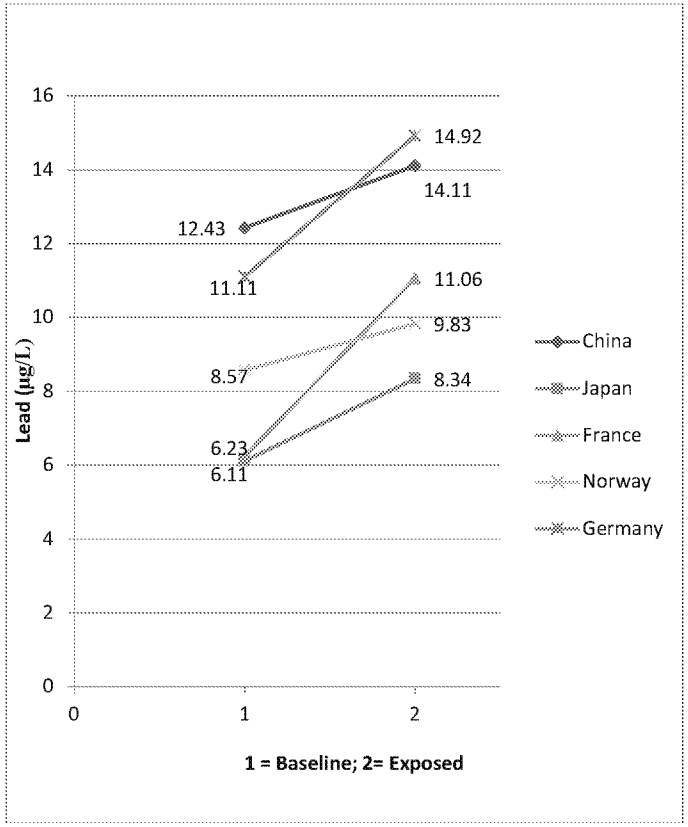

Figure 3. Change in blood lead levels by study with current smoking, age 35+ years, and being overweight or obese, in comparison to women who never smoked and have no passive exposure, are aged <25 years, and are underweight

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Supplementary Information to

Benefits of cooperation between large-scale cohort studies and human biomonitoring projects in environmental health research: An exercise in blood lead analysis

1. Environment and Child Health International Birth Cohort Group (ECHIBCG)

The current ECHIBCG consists of:

- The Danish National Birth Cohort (DNBC),
- The Etude Longitudinale Française depuis l'Enfance (ELFE),
- The German Environment Ministry and the German Environment Agency,
- The Japan Environment and Children's Study (JECS),
- The Norwegian Mother and Child Cohort Study (MoBa),
- The Shanghai Birth Cohort Study (SBC) and
- The United States Environmental Protection Agency

2. Study design, samples sizes and biomonitoring methods

Key characteristics of the studies represented in the ECHIBCG are described below and summarized in Table S1.

Danish National Birth Cohort Study

The Danish National Birth Cohort Study (DNBC) is

Etude Longitudinale Française depuis l'Enfance

The Etude Longitudinale Française depuis l'Enfance (Elfe) is to understand how the environment, from pre-birth to late adolescence, affects the child's development, health, socialization, and school career. The ultimate goal of Elfe is to produce knowledge that will improve the health and well-being of all children. The study is being led by a joint unit between the French National Institute of Demographic Studies (INED), the National Institute of Health and Medical Research (INSERM), and the Blood Agency (EFS). Initial funding for the recruitment and first follow-up sweeps study was

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provided by the Ministries of Health, Environment and Research through a 'Large Infrastructure' Program; follow-up after 2 years is funded by the French national 'Investment for the future' program.

The recruitment occurred in 4 waves totalizing 25 days over 2011. Eligible infants had to be born on an 'Elfe' day in randomly selected maternities, be more than 33 weeks of gestation, a single or twin birth, and mother older than 18 years and able to sign consent. A pilot study was undertaken in 2007 to assess feasibility, acceptability, and pertinence. The full study, launched in the field at the end of March 2011, has recruited 18,329 infants and 18,040 mothers. Biological samples have been collected from 1,000 to 3,000 births. Follow-up data collections have been performed at the 2-month, 1, 2, 3 and 5.5 years with participation rate ranging from 90% to 75%. A second round of biological sample collection have been organised during at 3.5 years in 2,000 children.

Elfe objectives focus on key issues that are 1) the consequences of the children health development and socialization of major societal changes such as changes in family structures, labour casualization, use of new technologies 2) the multifactorial determinants of the child school career 3) the early environmental, nutritional and psychosocial exposures in the context of the developmental origin of adult health and diseases theory 4) understanding social health inequalities.

Among environmental exposures, the Elfe project aims to identify pollutants currently causing concern (flame retardants, phthalates, bisphenol A, pesticides, heavy metals, indoor and outdoor air pollutants) that present a short- or long-term risk for vulnerable persons (pregnant women, unborn babies, young children) at concentrations currently observed in France. The study data will also provide information on ways of reducing this risk. Contaminants are measured at birth in maternal and cord blood as part of the perinatal part of the French biomonitoring plan.

Germany

How we describe Germany participation?

Commented [CA23]: I suggest to mention role of coordinator of HBM4EU that also aims for making use of the large number of EU cohorts and biobanks for (children's) environmental health. Moreover, experience from GerES and ESB is provided to ECHIBCG. Would that be OK?

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Japan Environment and Children's Study

The Japan Environment and Children's Study (JECS) started the recruitment of pregnant women in January 2011 and concluded in March 2014. The study enrolled more than 103,000 participants in Japan and will follow them for 13 years. The study organization is led by the Ministry of the Environment, National Institute for Environmental Studies, among other stakeholders, including 15 Regional Centres (locations of the study nationwide). Funding for the study is provided by the Japanese parliament.

The study will investigate environmental exposure during the foetal, infant, and early childhood stages and how they adversely affect children's health. The main emphasis will be given to environmental chemicals such as persistent organic pollutants (POPs; dioxins, PCBs, organofluorine compounds, flame retardants, etc.), heavy metals (mercury, lead, arsenic, cadmium, etc), endocrine disruptors (bisphenol A, etc), agrichemicals, volatile organic compounds (benzene, etc). Genetics, socio-economics and lifestyle information will also be examined.

Main outcomes will include physical development (preterm birth, low birth weight, development after birth, etc), congenital anomalies (hypospadias, cryptochidism, cleft lip, cleft palate, spina bifida, digestive tract obstruction, ventricular septal defects, Down's Syndrome, etc), sexual differentiation abnormalities (sex ratio, genital development impairment, sexual differentiation of the brain, etc), psychoneuro-development disorders (autism, learning disorders, attention-deficit/hyperactivity disorder (ADHD), etc), immune system disorders (paediatric allergies, atopic dermatitis, asthma, etc), endocrine / metabolic abnormalities (lowered glucose tolerance, obesity, etc.).

Norwegian Mother and Child Cohort Study

The Norwegian Mother and Child Cohort Study (MoBa) is a prospective population-based pregnancy cohort study conducted by the Norwegian Institute of Public Health. Participants were recruited from all over Norway from 1999–2008, and 40.6% of the invited women consented to participate. The cohort now includes some 114,500 children, 95,200 mothers and 75,200 fathers. MoBa includes

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information from The Medical Birth Registry of Norway, which comprises data on all births in Norway. The mothers were recruited in the first trimester and they filled in three questionnaires during pregnancy, including an extensive food frequency questionnaire. Additionally, child development is continuously followed through questionnaires at intervals since birth, and through linkage to national registries (e.g. the Norwegian Patient Registry on clinical diagnoses and the Norwegian Prescription Database for dispensed drugs). The current study is based on n=2,984 pregnant women from the MoBa-ETox subsample which is part of the first phase of the Norwegian Human Environmental Biomonitoring Program.

Shanghai Birth Cohort Study

The aim of the Shanghai Birth Cohort Study (SBC) is to study the effects of genetic, environmental and behavioural factors on women's reproductive health, pregnancy outcome, child growth and development, and risk of diseases. The study is being led by the Ministry of Education—Shanghai Key Laboratory of Children's Environmental Health, Shanghai Jiao Tong University School of Medicine, Shanghai, China. Funding for the study is provided by the Shanghai Municipality Bureau of Health.

The first phase of the study will recruit 4,000 women planning pregnancy or in early gestation. To be included in the study, women must be 20 years of age or older, planning to be pregnant and to received prenatal care and give birth in a participating hospital, registered residents of Shanghai municipality, have lived in Shanghai in the past 2 years, and not plan to move out of the catchment area in the next 2 years. Women who have tried to conceive spontaneously for more than 12 months will not be included in the preconception cohort. However, if they become pregnant by all means later, they can be enrolled at early gestation. Participants and their children will be followed up until at 1st, 2nd, 3rd trimesters, at birth, and at 42 days postpartum, 6 months, 1 year the children are 2 years of age, ideally longer, depending on funding. Recruitment for the cohort study will take place in the

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hospital, which will give maximum efficiency. Women who do not come for preconception care can still be recruited in early gestation. Enrolment began in April of 2013.

The SBC study uses interviewer administered questionnaires. Women planning pregnancy will be asked to spend about 1 hour while in the hospital for preconception care or first prenatal care answering the interviewer's questions and biological sample collection. The latter includes venous blood, cord blood, urine, nails, breast milk, semen, placenta, buccal swab and hair. A subcohort of 1,000 more cooperative volunteers will be involved in a more detailed study of nutrition and home environmental exposure. Their home will be visited by a research team and their household dust, drinking water and indoor air samples will be collected for measurement of environmental pollutants of interest.

The US Environmental Protection Agency

How we describe Ruth's participation?

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Table S1. Study design and key characteristics of the ECHIBCG members (Study design, samples sizes and biomonitoring methods)

	Danish National Birth Cohort (DNBC)	Etude Longitudinale Française depuis l'Enfance (Elfe)	German Environmental Specimen Bank (ESB)	Japan Environment and Children's Study (JES)	Norwegian Mother and Child Cohort Study (MoBa)	Shanghai Birth Cohort Study
Design		Prospective birth cohort	Annually repeated cross-sectional, self-selection sampling (volunteers)	Prospective birth cohort	Prospective birth cohort	Prospective birth cohort
Size		18 040 mothers 18 329 newborns 287 twin pairs	approx. 120 per year (60 female, 60 male)	103,099 mothers 100,108 children 51,909 fathers	95,200 mothers 114,500 children 75,200 fathers	4606 mothers 3692 livebirths
Sample size for the lead analysis		1670	1842	17998	2982	423
Planned? follow up		20 years of age	No follow up of participants	13 years of age	Rest of life	At least 10 years of age

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Last completed follow-up	7 years				
Location	Mainland France	Münster, Greifswald, Halle/Saale, and Ulm	Japan	Norway	Shanghai municipality
Completed evaluation cycle	Birth 2 months 1 year 2 years 3,5 years 4-5 years (school survey) 5,5 years 6-7 years (school survey)	Singular sampling	Pregnancy: First trimester, second–third trimester Birth 1 month 6 months every 6 months till 12 years	Pregnancy: GW 17, 22, 30. Birth, 6mo, 18mo, 3, 5, 7, 8, 14 years.	Pregnancy: 1st, 2nd, 3rd trimester, birth, 6 weeks, 6 months, 1, 2, 4, 7, 10 years.
Completed?	Sub cohort 1500-	Whole blood, blood	Main cohort:	Maternal blood and	Maternal blood,

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Biomonitoring	3000) Maternal blood (birth) Maternal urine (birth) Maternal colostrum (birth) Maternal hair (birth) Cord blood Meconium Child urine (3,5 years) Child stool (birth, 12-18 months, 3,5 years) Child hair (3,5	plasma, and 24h-urine	Maternal blood (first trimester, second–third trimester, at birth) Maternal urine (first trimester and second–third trimester) Maternal hair and breast milk (1 m) Cord blood Child hair and dried blood spot (1 m) Paternal blood (ad libitum) Child urine (8 y) Child blood and	urine week 17 in pregnancy. Cord blood.	maternal urine, maternal hair, cord blood, placenta, cord tissue, child hair, dried blood spot, father's buccal swab, child urine and blood (2 y and 4 y)

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	years)		urine (12y) Sub-cohort (5,000): Child blood (2 y) Child blood and urine (4, 6, 8, 10 and 12 y)		
Date and type of sampling for lead	Cord blood	Whole Blood Women (aged 20-29), from 2010-2016	Maternal blood (mid–late trimester) 2011–2014	Maternal blood, week 17 of pregnancy	Cord blood 2014 - 2015
Funding	Ministries of health, environment, research, culture, National institute for youth and education, Familial allowance national	German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety	Ministry of the Environment	The Norwegian Ministry of Health and the Ministry of Education and Research, NIH/NIEHS	Shanghai Bureau of Health

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	fund, National research agency (Investment for the future call)				
Website	www.elfe-france.fr	www.umweltprobenbank.de/en/	www.env.go.jp/en/chemi/hs/jecs/	https://www.fhi.no/studier/moba/	www.shyousheng.net

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International Agency for Research on Cancer

World Health Organization

Environment and Child Health International Birth Cohort Group

Teleconference hosted by IARC – 2nd October 2018

AGENDA

1. Approval of the minutes from the last teleconference (12th September 2018)
2. Literature review on blood lead levels and body mass index
3. Lead article (second version)
4. Decision on the meeting in November 2018
5. AOB

Message

From: Shah, Manthan [shah.manthan@epa.gov]
Sent: 10/1/2018 5:07:25 PM
To: Euling, Susan [Euling.Susan@epa.gov]; Dzubow, Rebecca [Dzubow.Rebecca@epa.gov]; Firestone, Michael [Firestone.Michael@epa.gov]; AO-OCHP-Everyone [AOOCHPEveryone@epa.gov]
Subject: RE: Children's Health Month - Protecting Children's Health

My question exactly...seems like most of us found out about this via the email last week.

From: Euling, Susan
Sent: Monday, October 1, 2018 1:06 PM
To: Dzubow, Rebecca <Dzubow.Rebecca@epa.gov>; Firestone, Michael <Firestone.Michael@epa.gov>; AO-OCHP-Everyone <AOOCHPEveryone@epa.gov>
Subject: RE: Children's Health Month - Protecting Children's Health

How was OCHP bypassed in this effort? Or were some folks involved from the beginning (I hope so).

Sue

From: Dzubow, Rebecca
Sent: Monday, October 01, 2018 1:05 PM
To: Euling, Susan <Euling.Susan@epa.gov>; Firestone, Michael <Firestone.Michael@epa.gov>; AO-OCHP-Everyone <AOOCHPEveryone@epa.gov>
Subject: RE: Children's Health Month - Protecting Children's Health

I must say I'm disappointed in the "Address Chemical Exposures Section", as it does not address the numerous things we do regarding our regulatory efforts with OCSPP.

ADDRESS CHEMICAL EXPOSURES
Chemicals are used in schools for a range of activities including building maintenance and classroom learning. High schools usually have larger inventories and more hazardous chemicals than middle and elementary schools, but hazardous chemicals can be found in all schools, especially in science classes and labs (e.g., mercury), shop classes, and store rooms.

Thoughtful chemical purchasing, use and management is critical for reducing chemical exposures and costly accidents, which ultimately affect student learning and attendance. EPA offers comprehensive technical resources for safe chemical management in K-12 schools. https://www.epa.gov/schools-chemicals/toolkit-safe-chemical-management-k-12-schools

EPA's emergency response team is available 24/7 to provide technical assistance to the local authorities as well as lead investigations and response actions when necessary in schools in the event of chemical emergencies such as mercury spills and school science lab incidents. More information is available at: https://www.epa.gov/ert.

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Rebecca C. Dzubow, MPH, MEM
Health Scientist
U.S. EPA Office of Children's Health Protection | Regulatory Support and Science Policy Division
1200 Pennsylvania Avenue, NW (1107T) | Washington, DC 20460
(202) 564-0967
~~~~~~

From: Euling, Susan
Sent: Monday, October 01, 2018 1:03 PM
To: Firestone, Michael <Firestone.Michael@epa.gov>; AO-OCHP-Everyone <AOOCHPEveryone@epa.gov>
Subject: RE: Children's Health Month - Protecting Children's Health

I could not find mention of EPA's Children's Health Policy in the booklet. Did others find it?

Here is the section where one would hope to find it mentioned:

EPA'S COMMITMENT TO CHILDREN'S HEALTH

EPA is committed to protecting children where they live, learn, and play. To that end, EPA has many initiatives currently underway in partnership with federal agencies, states, tribes, local governments, schools, community groups, medical providers, and other stakeholders. The agency understands that to be protective of children's health, as highlighted by the President's Task Force, it is essential that childhood lead exposures be reduced, children's environments be safe from environmental hazards, the risk from asthma triggers be actively reduced and harmful chemical exposures be minimized.

Through its regional programs, EPA provides grant funding to a wide range of initiatives from educating childcare professionals about providing healthy settings for children, researching effects of pregnancy exposure to environmental chemicals, deploying mobile asthma clinics, managing lead-based paint accreditation and certification programs, removing asbestos and lead-based paint, funding enforcement of lead-based paint regulations, and removing lead service lines.

The following are a few highlights of EPA's initiatives. Additional information on EPA's efforts to protect children's health is found at: https://www.epa.gov/children.

From: Firestone, Michael
Sent: Monday, October 01, 2018 12:56 PM
To: AO-OCHP-Everyone <AOOCHPEveryone@epa.gov>
Subject: Children's Health Month - Protecting Children's Health

FYI – Looks what is now on the EPA Home Page as rotating banner #1:

Protecting Children's Health
One of the most important things we can do to protect our children's future is make sure they grow up in a healthy environment. Find ways you can protect children from environmental risks. October is Children's Health Month.
Read the online booklet
Read the President's Proclamation on Children's Health Day
Learn more about protecting children's health

Thanks to Angela who helped the Office of Public Affairs prepare the Online Booklet (see link above).

Michael P. Firestone, Ph.D., Acting Director
Office of Children's Health Protection (MC 1107T)
U.S. Environmental Protection Agency
Office: 202-564-2199
Cell: Ex. 6

Message

From: Louie, Nica [Louie.Nica@epa.gov]
Sent: 9/18/2018 9:37:34 PM
To: Foos, Brenda [Foos.Brenda@epa.gov]; Etzel, Ruth [Etzel.Ruth@epa.gov]
Subject: RE: ORD Strategic Research Action Plans (StRAP) for IntraAgency Review
Attachments: OCHP comments ORD StRAP Sept 18.docx; OCHP comments ORD StRAP Sept 18.pdf

Hi Ruth! Hope you are having a very rewarding time on your trip. Please find attached the near final comments on the ORD StRAPs in word and as a PDF. We look forward to meeting with you on Thursday and to your comments.

- nica

From: Foos, Brenda
Sent: Tuesday, September 18, 2018 11:49 AM
To: Etzel, Ruth <Etzel.Ruth@epa.gov>
Cc: Louie, Nica <Louie.Nica@epa.gov>
Subject: RE: ORD Strategic Research Action Plans (StRAP) for IntraAgency Review

Hi Ruth, Nica has been working on comments to ORD regarding the draft StRAPs, per the request below. Our plan is to share a nearly final version with you this evening so that you will have it for the plane ride tomorrow, so please look for it before you depart as we will be sending it in a few hours. The comments are due on Friday, but as Nica is off on Friday we would like to have this mostly completed on Thursday.

Thanks, Brenda

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Brenda Foos
Director, Regulatory Support and Science Policy Division
U.S. EPA Office of Children's Health Protection
202-564-2707

From: Etzel, Ruth
Sent: Thursday, August 23, 2018 11:48 AM
To: Foos, Brenda <Foos.Brenda@epa.gov>
Subject: FW: ORD Strategic Research Action Plans (StRAP) for IntraAgency Review

Please give me a call and we can discuss.

From: Rodan, Bruce
Sent: Thursday, August 23, 2018 10:11 AM
To: Etzel, Ruth <Etzel.Ruth@epa.gov>
Cc: Kryak, DavidD <Kryak.Davidd@epa.gov>; Fleming, Megan <Fleming.Megan@epa.gov>
Subject: ORD Strategic Research Action Plans (StRAP) for IntraAgency Review

Ruth,

Hi. Please find attached the draft Strategic Research Action Plans (StRAPs) for five of six of ORD's National Research Programs. As you are aware, over the last several months ORD's National Program Directors (NPDs) have worked diligently with EPA senior managers and staff to identify priority areas of research for FY19 through FY22 – and thanks for the research needs document that Brenda Foos sent over. With this note, ORD is requesting intraAgency review by you and your staff. The Human Health and Risk Assessment (HHRA) StRAP is still under development and will be circulated when the draft is prepared. In order to meet peer review and implementation timetables, we are looking to a 30-day review period, with receipt of comments by Friday September 21.

To facilitate your review, we have developed proposed charge questions on which we would like you to focus:

1. Does the ORD Strategic Research Action Plan (StRAP) highlight the environmental challenges that you have identified as most important to your Program/Region? If not, please elaborate.
2. Which of the identified Program, Region, State, and/or Tribal needs and research outputs are most important to your Program/Region? Please identify those needs that are most immediate.
3. Please provide any further comments on the StRAP.
4. With the objective of providing the most useful research products, do you have recommendations on how you would like us to continue close ORD-Program/Regional coordination as the StRAPs are implemented into research products?

We are hoping for a single consolidated file of OCHP's comments uploaded to a SharePoint library. To that end, please provide the name of a contact person who will upload comments (provide name to David Kryak (Kryak.Davidd@epa.gov) so we can give them the link and edit rights).

For questions on general or procedural matters, please feel free to contact me or David Kryak. For content-specific research issues, please contact the relevant National Program Director: A-E – Alan Vette; CSS – Jeff Frithsen; HSRP – Greg Sayles; SHC – Mike Slimak; and SSWR – Suzanne vanDrunick.

We look forward to meeting with you mid-September after you have had the opportunity to read the draft StRAP(s).

Thanks for your continued engagement in this research planning.

Bruce Rodan
Associate Director for Science
EPA Office of Research and Development

Message

From: Foos, Brenda [Foos.Brenda@epa.gov]
Sent: 9/24/2018 6:19:32 PM
To: Etzel, Ruth [Etzel.Ruth@epa.gov]
CC: Dzubow, Rebecca [Dzubow.Rebecca@epa.gov]
Subject: Clearance review of RAF draft on variability/susceptibility
Attachments: vblty paper 7-20-18.docx; 091317 OCHP review of RAF SoS Variability estimates HH draft.docx

Importance: High

Ruth, I am writing because Rebecca is seeking clearance for the RAF manuscript for which she is an author – see attached and email below. The first element of OCHP's clearance process is to give the management a heads-up…so here it is.

The second step is to obtain peer review, which Rebecca has done through the RAF clearance process; however, we were unable to find OCHP staff with sufficient time to review the current draft (but she did receive input on a prior version). This is probably to be expected given the incredible number of commitments everyone on our staff has.

The third step is to use the disclaimer, which will be no problem.

Please let us know if you have any questions about this.

Thanks, Brenda

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Brenda Foos
Director, Regulatory Support and Science Policy Division
U.S. EPA Office of Children's Health Protection
202-564-2707

From: Dzubow, Rebecca
Sent: Friday, September 21, 2018 12:17 PM
To: Foos, Brenda <Foos.Brenda@epa.gov>
Subject: RE: review of RAF draft on variability/susceptibility
Importance: High

Brenda,

Dan would like to have OCHP clearance of the manuscript "Methods for Evaluating Variability in Human Health Dose-Response Characterization" by Tuesday 9/25.

Attached is the 7/20/18 draft of the manuscript. **Deliberative Process / Ex. 5**

Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

I am also attaching the 9/13/17 OCHP comments from Sue and Michael on the RAF draft paper on this topic. The five recommendations were:

Deliberative Process / Ex. 5

Thanks,
Rebecca

~~~~~~

Rebecca C. Dzubow, MPH, MEM
Health Scientist
U.S. EPA Office of Children's Health Protection | Regulatory Support and Science Policy Division
1200 Pennsylvania Avenue, NW (1107T) | Washington, DC 20460
(202) 564-0967
~~~~~~

Message

From: Sophie Balk [SBALK@montefiore.org]
Sent: 9/15/2018 2:49:42 PM
To: Etzel, Ruth [Etzel.Ruth@epa.gov]; internet:pspire@aap.org [pspire@aap.org]
CC: Sophie Balk [SBALK@montefiore.org]
Subject: Chapter 32 - Lead
Attachments: 32_PEH_ch32_000-000.gm.rev1rae091218 sjb091418.pdf

Ruth,
Please see attached with edits.

In addition,

Callout for Table 32-1 on page 9 comes before the Table on page 6

Page 11, 3 lines from bottom: I changed "toxicity" to "poisoning"

13, 5 lines from bottom and page 18, last paragraph and 2 other places: I changed "primordial" to "primary". The use of "primordial" is unfamiliar to me and will be confusing to pediatricians. Is this new terminology?

Table 32-3 – inserted "and federal". Please let me know if this is ok, and if "federal" is capitalized

Page 15: I made changes including changing "evidence of symptomatology" to "overt symptoms"

19: changed "or" to "to"

20: First FAQ, added giving water directly to infant or child

21, 2nd paragraph: Inserted "or more" after 15

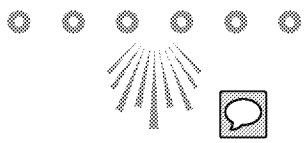
Please let me know your thoughts.

Thanks

Sophie J Balk MD
Attending Pediatrician
Children's Hospital at Montefiore
Professor of Pediatrics
Albert Einstein College of Medicine
718 405-8090
718 405-8091 (fax)

Chapter 32

Lead



KEY POINTS

- ~~There is no~~ safe level of lead.
- Disparities persist that disproportionately expose certain populations of children and pregnant women to lead ~~exposure~~.
- The sources for most children with elevated blood lead levels today are lead-laden dust and paint chips from deteriorating lead paint on interior surfaces.

INTRODUCTION

Childhood lead toxicity has been recognized for more than 100 years. As recently as the 1940s, many people believed that children with lead poisoning who did not die during an acute toxic episode had no residual effects. After it was recognized that learning and behavior disorders occurred in children who recovered from acute toxicity, many believed that only children with frank symptoms suffered neurobehavioral deficits. Starting in the 1970s and continuing today, studies worldwide consistently demonstrated that asymptomatic children with increasing levels of lead had lower IQ scores,[1,2,3] more language difficulties,[4] attention problems,[5] and behavior disorders.[6,7] With better epidemiological studies, the definition of a harmful level of lead has changed markedly. Abundant scientific evidence now shows that blood lead levels (BLLs) below 10 mcg/dL are associated with adverse cognitive, behavioral, and other effects in infants and children.[3,8,9] Based on this evidence and other important longitudinal prospective studies, in 2012 the Advisory Council on Childhood Lead Poisoning Prevention

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convened by the Centers for Disease Control & Prevention (CDC) cited new scientific data that documents adverse health effects of lead on infants and children at venous blood concentrations below 10 mcg/dL.[10] In response to this report, the CDC created a reference value of 5 mcg/dL, based on the 97.5th percentile of the BLL distribution among children age 1 to 5 years. The CDC used data generated by the National Health and Nutrition Examination Survey (NHANES) rather than a health-based action level.[11] The report emphasized the importance of and focus on primary prevention efforts given the lack of an identified threshold without deleterious neurodevelopmental effects and evidence that these effects appear to be irreversible.

It is estimated that 500,000 children (2.5%) younger than 6 years in the United States have BLLs at or above the current CDC reference level.[12,13] Children living in 3.6 million US households are currently exposed to lead hazards.[12] The continued exposure of thousands of children to lead-laden dust and paint chips in deteriorating housing mars what would otherwise be a public health triumph. Although lead levels have decreased in all children tested, environmental health disparities persist that disproportionately affect low-income and minority families and communities.[14] (See At-Risk Populations and Chapter 55, ~~Environmental Equity).~~

The CDC emphasizes that the best way to end childhood lead poisoning is to prevent, control, and eliminate lead exposures. The CDC[11] and the American Academy of Pediatrics (AAP)[15] currently use the reference value of 5 mcg/dL as the level that should prompt public health action. The focus has shifted from the care of symptomatic children toward a primary prevention approach targeting communities most at risk of lead poisoning.[11,16] Reducing or eliminating the myriad sources of lead ~~exposures~~ before exposures occur is the most reliable and cost-effective measure to protect children from lead toxicity.[15,17] Because of universal and targeted blood testing of children for lead exposure, pediatricians commonly find themselves participating in or even directing these activities.[15]

ROUTES AND SOURCES OF EXPOSURE

Children may be exposed to lead through the unintentional ingestion of lead-containing particles, such as dust from paint, soil, or ongoing renovations; or from contaminated water (See Figure 32-1). Lead can be absorbed from the pulmonary tract if inhaled as fumes or respirable particles. Lead is transmitted in human milk.

Lead (Pb) is a metallic element. In the United States, there have been 2 major sources of industrially derived lead for children: airborne lead, mostly from the combustion of gasoline containing tetraethyl lead; and lead-laden dust and debris, mostly from deteriorating lead-based paint.[11] The largest declines in ~~blood lead levels~~ occurred from the 1970s to the 1990s, following the elimination of lead in motor vehicle gasoline, the ban on lead paint for residential use, removal of lead from solder in food cans, bans on the use of lead pipes and plumbing fixtures, and other limitations on the uses of lead.[12] (See Figure 32-2)

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Federal legislation in the 1970s resulted in removal of lead from motor gasoline and reduced smokestack emissions from smelters and other sources, causing BLLs in children to decrease; lead in aviation gasoline, however, still persists today.[18] The use of heavily leaded paint on interior surfaces ceased in the United States by 1978[15] but there still are significant lead paint hazards in 3.6 million

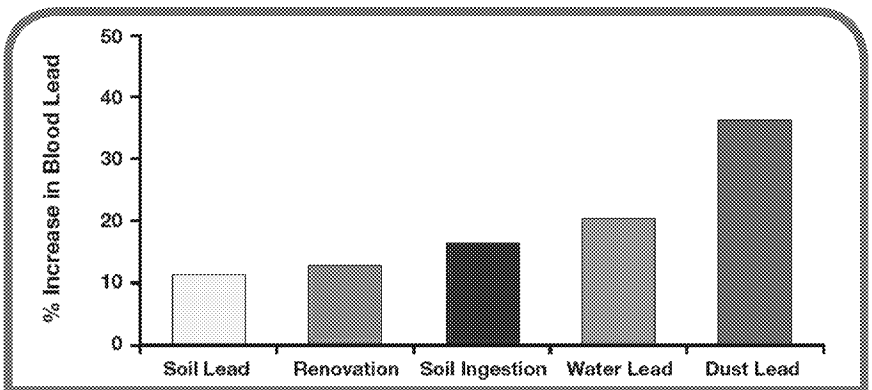

Figure 32-1. Contribution of Lead Exposure to Children's Blood Lead Concentrations. Reproduced from AAP Council of Environmental Health[15], adapted from Lanphear et al.[16] and Spanier et al.[16]

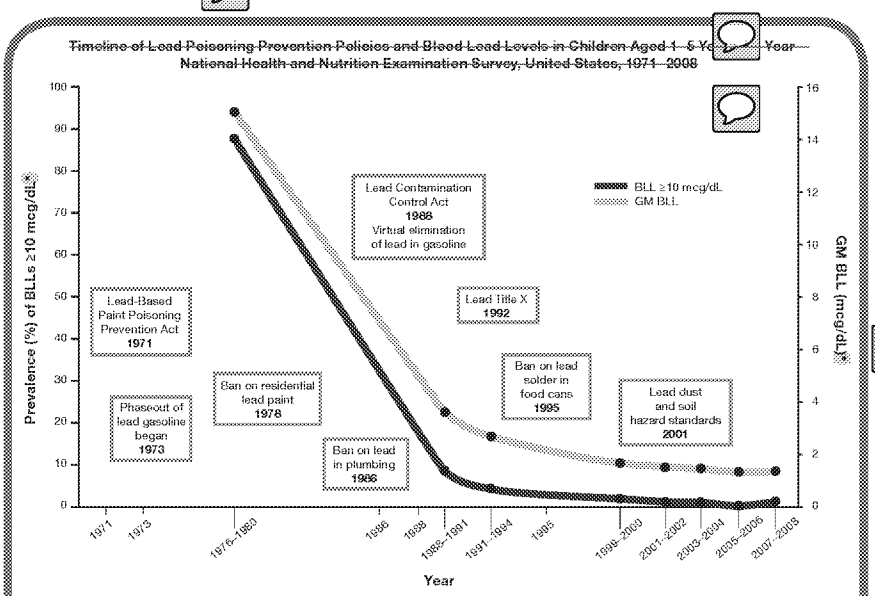

Figure 32-2. Timeline of Lead Poisoning Prevention Policies and BLLs in Children Aged 1–5 Years, by Year—National Health and Nutrition Examination Survey, United States, 1971–2008. Reproduced from AAP Council of Environmental Health[15]

Abbreviations: BLL = blood lead level; GM BLL = geometric mean blood lead level

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homes inhabited by at least 1 child younger than age 6. Exposure is likely in situations where lead-based paint exists in deteriorated conditions.[19,20] Soil contaminated from 'legacy' sources of lead (leaded gasoline and lead-based paint) can recontaminate remediated houses.[21,22] Residual lead in soil in areas heavily affected by airborne lead, such as around smelters, continues to be a problem even decades after the worst sites are closed.[23]

The source for most children with elevated BLLs today is lead-laden dust and paint chips from deteriorating lead paint on interior surfaces. Young children living in homes with deteriorating lead paint can achieve BLLs of at least 20 mcg/dL without frank pica (ingestion of nonfood items).[24] This exposure commonly arises from normal, developmentally appropriate hand-to-mouth behavior in an environment that is contaminated with lead dust. Children with lower ~~blood lead levels~~ (less than 10 mcg/dL) may have continuous exposures from multiple sources including food, water, soil, and dust.

Lead plumbing (Latin "plumbus" means lead) has contaminated drinking water for centuries, especially if the water has high or low acidity or low mineral content. This was unfortunately exemplified most recently through contaminated drinking water affecting Flint, Michigan. This contamination was the result of several preceding events. The community's water source was changed, resulting in the need to augment disinfection processes. The disinfection processes were done without appropriate corrosion control procedures, leading to an increase in leaching of lead from corroding leaded and galvanized pipes, solder, and plumbing fixtures. Studies of this community identified a statistically significant increased odds of having an elevated ~~blood lead level~~ in the period following the switch in drinking water source.[25,26] The majority of elevated BLLs tested were in the 5 to 9 mcg/dL range, although few children younger than age 1 were tested.[25]

The Environmental Protection Agency (EPA)'s Lead and Copper Rule is a treatment technique rule to help minimize water contamination in public water systems. This rule employs an action level as a screening tool to determine when certain treatment technique actions are needed. The rule sets a target concentration ("action level") of 0.015 mg/L (15 parts per billion [ppb]) and recommends remediation measures such as corrosion control treatment, source water monitoring, public education, and potentially lead service line replacement if the action level is exceeded in more than 10% of tap water sampled.[12] Notably, the federal government recommends but does not require testing of water in schools or childcare facilities that meet the definition of a public water system. No testing is required for private wells, although private wells account for 10% to15% of the population's water sources.[27] As suggested by a 2016 National Resources Defense Council report, water violations persist throughout the United States and have for a number of years.[28] In 2015, more than 5,000 community water systems, serving 18 million people, violated the

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Lead and Copper Rule.[23] Of these, 1,110 community water systems, serving 3.9 million people, had water lead levels in excess of 15 ppb in at least 10% of homes tested.[24] Infants who consume reconstituted formula, people living in neighborhoods with high levels of socioeconomic disadvantage, and minority populations are at increased risk of lead poisoning from contaminated drinking water.[26] As a result of emerging concerns over lead and water contamination, the US EPA has been working with states, public water systems, and water sector stakeholders to revise existing rules and regulations, identify challenges, and promote best practices.[12] There is no safe level of lead in water; despite this fact, no health-based 'household action level' currently exists.[12] Various regional and state-level resources exist for testing individual drinking water at the tap and mitigating lead contamination in drinking water. Mitigation measures include installing charcoal-based water filters designed to remove lead, using cold water for cooking and formula preparation, allowing water to flush prior to use, and supplying resources to assist school and childcare facilities to minimize water contamination from lead. (See Table 32-1 and Resources).

Children also may be exposed to lead fumes or respirable dust resulting from unsafe remediation practices such as sanding or heating old paint; burning or melting automobile batteries, or melting lead for use in a hobby or craft. Childhood lead poisoning from toy jewelry has occurred including a fatality in a child who ingested a lead charm.[29,30,31] Lead has been found in older toys made in the United States, imported toys painted with lead-based paint, and plastic toys and vinyl that used lead as a softener.[31,32] Since 2008, the US Consumer Product Safety Commission (CPSC) has set requirements for third-party testing and certification by manufacturers and importers to help reduce the number of non-complying products entering the market.[12] Ongoing CPSC surveillance in partnership with other federal and state agencies demonstrated a reduction in the number of required recalls of these contaminated toys. These agencies collaborate with importers and manufacturers to prevent further importation of products containing unsafe amounts of lead.[12] Although individual children could chew on or ingest these products resulting in lead absorption, the extent to which toys and plastics contribute to lead exposure in most children is not clear. Less common sources of lead ~~exposure~~ include cosmetics, folk remedies, pottery glaze, old or imported cans with soldered seams, and contaminated vitamin supplements.

AT-RISK POPULATIONS

Disparities persist that disproportionately expose certain subgroups of children and pregnant women to lead exposure based on age, socioeconomic, occupational, developmental, and cultural risk factors. One study identified

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Table 32-1. Risk Factors for Lead Exposure and Prevention Strategies

RISK FACTOR	PREVENTION STRATEGY
ENVIRONMENTAL	
Paint	Identify, evaluate, and remediate
Dust	Control sources
Soil	Restrict play in area, plant groundcover
Drinking water	Check with local authorities about water testing; morning flush of water from faucet; use cold water for cooking and drinking, especially if tap water used for preparing formula; implement charcoal filter to reduce contamination Private well water should be tested for lead when the well is new and tested again when a pregnant woman, infant, or child younger than age 18 moves into the home and annually thereafter
Folk remedies (examples include Greta and Azarcon, Hispanic traditional medicines; Ghasard, an Indian folk medicine; and Ba-baw-saw, a Chinese herbal remedy)	Avoid use
Spices (examples include Southeast Asian spices such as ~~tumeric~~) and candy from Mexico (ingredient tamarind may contain lead)	Avoid use in young infants, children, and women of reproductive age
Cosmetics and religious powders (examples include Swad brand Sindoor, a cosmetic product used in Hinduism; Tiro, an eye cosmetic from Nigeria; Kohl or surma, an eye cosmetic from Southeast Asia)	Avoid use
Old ceramic or pewter cookware, old urns/kettles, decorative pottery from Mexico and ceramics from China, or other imported cookware	Avoid use
Some imported toys, crayons	Avoid use

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Table 32-1. Risk Factors for Lead Exposure and Prevention Strategies (*continued*)

RISK FACTOR	PREVENTION STRATEGY
ENVIRONMENTAL	
Parental occupations (examples include construction and demolition work, lead-paint abatement, pipe fitting and plumbing, battery manufacturing, mining, ship building or other marina work, e-scrap recycling, among others)	Shower and remove work clothing and shoes before leaving work See Occupational Safety and Health Guidance in Resources
Hobbies (examples include hobbies involving soldering such as stained glass, jewelry making, pottery glazing, and working with bullets, such as marksmanship at firing ranges, finishing sinkers and certain weights)	Proper use, storage, and ventilation
Home renovation	Proper containment, ventilation; pregnant women and young children should vacate premises while work is done and not re-enter until premises certified as lead-safe. Certified lead abatement[2]
Buying or renting a new home	Inquire about lead hazards, look for deteriorated paint before occupancy, hire certified lead risk assessor to evaluate hazard and recommend control options; consult local housing databases of lead hazards as available
HOST	
Hand-to-mouth activity (or pica)	Control sources; frequent hand washing
Inadequate nutrition	Screening for iron and vitamin D deficiency. Optimization of iron, calcium, and vitamin D
Developmental disabilities	Enrichment programs as available (eg, referral to early intervention (<3 years old) and to public school departmer individualized education program (<3 years old)

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that children—especially those between the ages of 12 to 18 months living in dilapidated pre-World War II housing—experience ~~blood lead levels~~ 2 to 3 times higher on average than those living in rehabilitated housing.[33] Young children are more likely to have elevated ~~blood lead levels~~ because of differences in absorption from the gastrointestinal tract and age-appropriate exploration of their environments. They are also more susceptible to the toxic effects of lead compared with adults because of an incomplete blood-brain barrier that more readily permits the entry of lead into the developing nervous system.

National data suggest that ~~these~~ disparities exist by race/ethnicity and income. Children living at or below the poverty line who live in older housing are at greatest risk of lead exposure.[14] Children, especially those of low socio-economic status, are at increased risk of nutritional deficiency, such as iron deficiency. Iron deficiency is associated with a 4- to 5-fold increase in baseline risk of lead exposure because of increased absorption of lead by the divalent metal transporter in the gastrointestinal tract.[34,35]

Other groups of children at increased risk ~~of lead exposure~~ include newly arrived foreign-born families and recent immigrants with young children. These children may have had lead exposure in their native country; for example, approximately 50% of the worldwide burden of lead poisoning occurs in Southeast Asia. It also is possible that their exposure occurred in unsuitable housing once they arrived in the United States.[36-42] A toolkit found on the CDC Web site discusses risks for these children and recommends the following[14]:

1. Blood lead level testing of all refugee children aged 6 months to 16 years upon entry to the United States.
2. Repeat blood lead level testing of all refugee children aged 6 months to 6 years, 3 to 6 months after these children are placed in permanent residences and older children, as warranted, regardless of initial test results.

Children with developmental disorders, such as autism spectrum disorders and other neurological ~~syndromes~~, who have persistent pica behaviors and/or poor cognitive abilities, are at increased risk of lead exposure.[44-46] The increased risk in these children may persist into school age and adolescence, beyond when children are routinely tested for elevated BLLs. Children living in foster care also have an increased risk.[47] Scant guidance exists regarding testing children for elevated lead levels while they living ~~are~~ in foster care.[48] These children have increased susceptibility to adverse effects from lead exposure because they may have other neurodevelopmental comorbidities and often have lived in many different homes. Foster homes are less likely to be assessed for lead hazards before children are placed there. Pediatricians caring for these children therefore should take an environmental history with careful attention to lead exposure.

The National Institute for Occupational Safety and Health (NIOSH) has found that take-home exposure, including lead exposure, is a widespread

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problem.[49,50] Jobs with lead exposure include but are not limited to: painting, building renovation, demolition, shooting range work, metal scrap cutting and recycling, plumbing, and other industrial fields.[50] A case report demonstrated paraoccupational lead exposures from an e-scrap recycling facility where the father of 2 children worked.[51] Pediatricians should ask about parents' occupations and hobbies that might involve lead.

Table 32-1 includes common sources of lead contamination, risk factors, and prevention strategies. Additional ~~novel~~ sources of exposure include foreign-purchased cosmetics;[52,53] Southeast Asian spices[54,55] and herbs;[56] dietary supplements;[57] religious powders;[55] ayurvedic[58] or ethnic remedies;[52,55] occupational take-home exposures;[49,51,59] and vocational exposures such as marksmanship.[60,61]

Table 32-2. Summary of Children's Health Effects by Blood Lead Level

BLOOD LEAD LEVEL	SUFFICIENT EVIDENCE OR CAUSAL DETERMINATION OF CHILDREN'S HEALTH EFFECTS
Below 5 mcg/dL	Nervous System Effects: ▪ Cognitive function: Decreases in IQ, academic achievement, specific cognitive measures ▪ Externalizing behaviors: Increased incidence of attention-related and problem behaviors
5–10 mcg/dL	Effects listed above plus Nervous System Effects: ▪ Auditory Function: decreased hearing Reproductive and Developmental Effects: ▪ Reduced postnatal growth ▪ Delayed puberty for girls and boys
10–40 mcg/dL	Effects listed above plus Nervous System Effects: ▪ Nerve function: slower nerve conduction Blood Effects: ▪ Decreased hemoglobin, anemia
40–80 mcg/dL	Effects listed above plus Gastrointestinal Effects: ▪ Abdominal pain, constipation, colic, anorexia, and vomiting
Above 80 mcg/dL	Effects listed above plus Nervous System Effects: ▪ Severe neural effects: convulsions, coma, loss of voluntary muscle control, and death

Adapted from President's Task Force on Environmental Health Risks and Safety Risks to Children, Key Federal Programs to Reduce Childhood Lead Exposures and Eliminate Associated Health Impacts Report.[17] Based on evidence from[62-66]

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SYSTEMS AFFECTED

Lead exposure has been linked to many adverse health effects (See Table 32-2).[62,64] Lead acts as a neurotoxicant to the developing brain, resulting in irreversible damage even at relatively low levels of exposure. For lead exposure most commonly identified in the United States, subclinical effects on the central nervous system (CNS) are the most common effects. The best-studied effect is cognitive impairment, measured by IQ tests[3] and poor academic achievement,[10] and externalizing behaviors (problem behaviors directed toward the external environment), such as aggression and disobeying rules.[65,66] Each child with high lead levels in the United States costs approximately $5,600 in medical and special educational services.[14] Cognitive impairment attributable to lead contamination was estimated to cost $50.9 billion annually in lost economic productivity.[20]

A robust literature demonstrated a relationship between BLL at the time of testing and decreased scores on reading and arithmetic tests that is apparent even in children aged 6 to 16, including those whose BLLs by then are less than 5 mcg/dL.[67] Canfield et al[9] reported that among 172 children followed prospectively with measurements of BLLs, 101 had never had a BLL greater than 10 mcg/dL, and there was still a strong negative relationship between BLL and IQ when the children were aged 3 to 5. In most countries, including the United States, BLLs peak at approximately age 2 years because of normal hand-to-mouth exploratory behaviors in this age group, and then decrease without intervention. Although there is some relationship between peak BLL and IQ tested later, it is now clear that contemporaneous blood lead, even though it is lower, is more strongly associated with school-aged IQ.[3,68] Although lead exposure is a risk factor for developmental and behavioral problems, its impact has significant individual variability, which may be modulated by the psychosocial environment and educational experiences of the developing child.[24] Many factors affect cognition and behavior.

Other aspects of CNS function also may be affected by lead, but they are less well documented. Subclinical effects on hearing[69,70] and balance[71] may occur at commonly encountered BLLs. Some studies measured tooth or bone lead levels, which are thought to represent integrated, possibly lifetime, exposure. Teachers reported that students with elevated tooth lead levels were more inattentive, hyperactive, disorganized, and less able to follow directions.[4,72] Further follow-up in 1 of the studies showed higher rates of failure to graduate from high school, reading disabilities, and greater absenteeism in the final year of high school.[73] Elevated bone lead levels were associated with increased attention dysfunction, aggression, and delinquency.[74]

Although there are reasonable animal models of low-dose lead exposure and cognition and behavior,[75] the mechanisms by which lead affects CNS function are not entirely elucidated. Studies examining brain metabolism suggest

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that these effects may be caused by neuronal dysfunction and alteration in myelin architecture.[76] Lead alters very basic nervous system functions, such as calcium-modulated signaling, at very low concentrations in vitro.[77] The age of 2 years, when lead levels peak, is the same age at which a major reduction in dendrite connections occurs, among other events crucial to development. Thus, it is plausible that lead exposure at that time interferes with a critical development process in the CNS, but what that process is has not been identified. Brain imaging studies in adults with elevated BLLs in childhood have demonstrated region-specific reductions in gray matter volume,[78,79] alterations of white matter microstructure,[80] and a significant impact of lead on brain reorganization associated with language function.[81]

Lead also has important non-neurodevelopmental effects. The kidneys are primary target organs; children exposed to lead are at significantly greater risk of having hypertension as adults. Another renal effect of lead in children is impaired 1-*d*-hydroxylation of vitamin D, a necessary step toward activating this vitamin. A cross-sectional study suggested that environmental exposure to lead may delay growth and pubertal development in black and Mexican-American girls.[82] Episodes of severe lead poisoning can cause growth arrest of long bones, producing "lead lines." Given the advent of more sensitive screening metrics, this is no longer an effective means of diagnosing lead poisoning.

Lead interferes with heme synthesis beginning at BLLs of approximately 25 mcg/dL and after 50 to 70 days or more of exposure.[83] *D*-aminolevulinate dehydratase, an early-step enzyme, and ferrochelatase, which closes the heme ring, are inhibited. Ferrochelatase inhibition is the basis of a formerly used screening test for lead poisoning that measured zinc protoporphyrin and erythrocyte protoporphyrin, the immediate heme precursor. These markers are insensitive measures of lower BLLs and are not specific to elevated BLLs because they also are elevated in the presence of iron deficiency, a common comorbidity among children with elevated BLLs. These markers are used today as a window into the chronicity of ongoing exposure, although it lags behind the BLL.

CLINICAL EFFECTS

Some children with BLLs greater than 40 mcg/dL may complain of headaches, abdominal pain, loss of appetite, or constipation, or they may be asymptomatic. Children displaying clumsiness, agitation, or decreased activity and somnolence are presenting with premonitory symptoms of CNS involvement that may rapidly proceed to vomiting, stupor, and convulsions.[84] Symptomatic lead ~~toxicity~~ should be treated as an emergency. Although lead can cause peripheral neuropathy and renal disease in adults with occupational exposures, these are rare in children.

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DIAGNOSTIC METHODS

A venous BLL measurement is the gold standard for the diagnosis of lead poisoning. A finger-stick or capillary sample can ~~also~~ be used if care is taken to avoid contamination. Elevated BLLs (5 mcg/dL or greater) found with a capillary test should be confirmed with a timely venous sample and followed by appropriate management of elevated levels based on current guidelines.[10,15,85] Once a child has had an elevated lead level, capillary measurements should no longer be obtained.

Blood Lead Testing

Until 1997, the AAP and CDC recommended that virtually all children have at least one measurement of blood lead beginning at age 12 months, with a retest at age 24 months, if possible. Because the prevalence of elevated BLLs has decreased substantially, in 1997 the CDC recommended that health departments determine a lead screening strategy for their jurisdictions on the basis of prevalence of housing risks, poverty rates, and children with elevated BLLs. Regardless of local recommendation, however, federal policy requires that all children enrolled in Medicaid receive screening blood lead tests at ages 12 and 24 months and that blood lead testing be performed for children aged 36 to 72 months who have not been tested ~~previously.~~[10,11] This guidance also recommends that every child who has a developmental delay, behavioral disorder, or speech impairment, or who may have been exposed to lead, should receive a blood lead test.[5] Childhood lead testing is a national quality measure of clinical effectiveness. It is a recognized standard in the Health Effectiveness Data and Information Set (HEDIS), a widely used set of quality of care measures maintained by the National Committee for Quality Assurance for the accreditation of high-functioning managed care organizations and hospitals nationally.[86] Even though this recommendation exists, significant variability remains in lead testing, including for children most at risk who also may be disproportionately affected by gaps in the availability of systematic testing.

Assessments of risks for lead exposures and blood lead testing vary considerably by locale, from universal blood lead testing to targeted blood lead testing determined by risk assessment tools. Clinicians should consult city, county, or state health departments or their regional Pediatric Environmental Health Specialty Unit (www.pehsu.net) to determine the appropriate recommendations for their jurisdiction. This information also is available for most states on the CDC Web site (http://www.cdc.gov/nceh/lead/programs.htm). Children not enrolled in Medicaid and residing in states with no lead testing policy should have blood lead testing in accordance with Medicaid guidelines. The sensitivities of personal risk questionnaires and other substitutes for measuring BLLs vary according to the subgroup assessed and often are unacceptably low. These questionnaires may be more helpful in identifying and mitigating

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the source of exposure once an elevated blood lead level is identified.

Because of lead's effects on the developing fetus, the American College of Obstetrics and Gynecology and some states developed lead screening guidelines for pregnant women.[85] The CDC *Guidelines for the Identification and Management of Lead Exposure in Pregnant and Lactating Women* provides guidance about blood lead testing of pregnant women, medical and environmental management, and follow-up of mothers and infants when maternal lead levels are 10 mcg/dL or greater. http://www.cdc.gov/nceh/lead/publications/leadandpregnancy2010.pdf

At-risk Subgroups

Children of all ages who are recent immigrants, refugees, or adoptees have an increased prevalence of elevated—sometimes very elevated—BLLs and should be tested at the earliest opportunity. Those aged 6 months to 6 years and older children, as warranted, should be retested 3 to 6 months after moving into permanent residences.[36,42] This guidance refers to recent immigrant populations; there is limited guidance about the frequency of blood lead testing of other high-risk subgroups, such as children in foster care,[47] children with persistent pica behavior secondary to autism spectrum disorders or other neurodevelopmental disorders, or children with paraoccupational exposures.[5,42,46,89]

Diagnostic Testing

Some experienced clinicians measure the BLL in children with growth retardation, speech or language dysfunction, anemia, attention disorders, or other neurodevelopmental disorders, especially if the parents have a specific interest in blood lead level or in health effects from environmental chemicals. The persistent elevation of BLL into school age is unusual, however, even if peak BLL at age 2 years was high and the child's housing has not been abated. Thus, a relatively low BLL in a school-aged child does not rule out earlier lead exposure. If the question of current lead exposure arises, the only reliable way to make a diagnosis is with blood lead measurement. Abdominal radiography can be considered for children who have a history of pica for paint chips or excessive mouthing behaviors or if the BLL is 15 mcg/dL or greater (Table 32-3). Hair, urine, and teeth lead levels or long bone radiographs give no useful clinical information and should not be performed.[90]

No threshold or safe level has been identified for lead exposure. It therefore is critical to have a primordial prevention approach to eliminating lead exposure. Targeting elevated BLLs of 5 mcg/dL or greater is efficient for case management purposes and to mitigate continued exposures. This approach is not adequate to prevent unnecessary exposure to 'legacy lead' in vulnerable populations.[15]

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Table 32-3. Recommended Follow-up Actions, According to Blood Lead Level (BLL)[a]

BLL ~~(MCG/DL)~~	ACTIONS
<5 mcg/dL	1. Review lab results with family. For reference, the geometric mean blood lead level for children aged 1 to 5 in the United States is less than 2 mcg/dL. 2. Repeat the blood lead level in 6 to 12 months if the child is at high risk or risk changes during the timeframe. Ensure lead testing is done at age 1 and age 2 and is based on local ~~and~~ state guidelines. 3. For children tested at age younger than 12 months, consider retesting in 3 to 6 months because lead exposure may increase as mobility increases. 4. Perform routine health maintenance including assessment of nutrition, physical and mental development, as well as iron deficiency risk factors as per ~~the~~ recommendations in Bright Futures (American Academy of Pediatrics). 5. Provide anticipatory guidance on common sources of environmental lead exposure: paint in homes built prior to 1978, soil near roadways or other sources of lead, take-home exposures related to adult occupations, imported spices, cosmetics, jewelry, folk remedies, and cookware.
5-14 mcg/dL	1. Perform steps as described above for levels less than 5 mcg/dL. 2. Re-test venous blood lead level within 1 to 3 months to ensure the lead level is not rising. If it is stable or decreasing, retest the blood lead level in 3 months. Refer patient to local health authorities if such resources are available. Most states require elevated blood lead levels be reported to the state health department. Contact the CDC at 800-CDC-INFO (800-232-4636) or the National Lead Information Center at 800-424-LEAD (5323) for resources regarding lead poisoning prevention and local childhood lead poisoning prevention programs. 3. Take a careful environmental history to identify potential sources of exposures (see #5 above) and provide preliminary advice about reducing/eliminating exposures (eg, wash children's hands/toys frequently, frequent damp mopping of floors, windows, and window sills, ~~leave~~ shoes at threshold, ~~place~~ duct tape or contact paper over chipping/peeling paint, ~~cessation of~~ renovations). Consider other children who may be exposed. 4. Provide nutritional counseling related to calcium and iron. In addition, recommend having a fruit at every meal because iron absorption quadruples when taken with vitamin C-containing foods. Encourage the consumption of iron-enriched foods (eg, cereals, meats). Some children may be eligible for Special Supplemental Nutrition Program for Women, Infants and Child (WIC) or other nutritional resources.

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Table 32-3. Recommended Follow-up Actions, According to Blood Lead Level (BLL) (*continued*)

BLL (~~MCG/DL~~)	ACTIONS
	5. Ensure iron sufficiency with adequate laboratory testing (CBC, ~~F~~ferritin, CRP) and treatment per AAP guidelines. Consider starting a multivitamin with iron or iron supplementation as indicated. 6. Perform structured developmental screening evaluations at child health maintenance visits per recommendations in Bright Futures, and refer~~ral~~ to therapeutic programs (eg, Early Intervention Program, Individualized Education Programs) because lead's effect on development may manifest over years.
15-44 mcg/dL	1. Perform steps as described above for levels 5-14 mcg/dL. 2. Determine if there ~~is~~ any ~~evidence of symptomatology~~. 3. Confirm blood lead level with venous sample within 1 to 4 weeks. Higher levels require more rapid confirmation. 4. ~~Home~~ investigation to assess for the lead source, if available. If not available, consult with ~~regional~~ ~~PESHU~~ regarding other options. 5. Additional, specific evaluation of the child, such as abdominal radiograph should be considered based on the environmental investigation and history (eg, pica for paint chips, mouthing behaviors). Gut decontamination may be considered if radio-opaque foreign bodies consistent with ingested lead are visualized on radiograph. Any treatment for blood lead levels in this range should be done in consultation with an expert. 6. Contact ~~local~~ PEHSU or ~~PCC~~ for guidance
>44 mcg/dL	1. Follow guidance for BLL 15-44 mcg/dL as listed above. 2. Confirm the ~~blood lead level~~ with repeat venous lead level within 48 hours. 3. Obtain a complete blood count, electrolytes, BUN, creatinine, ALT, and AST in anticipation of chelation therapy. 4. Abdominal radiograph should be done to look for radio-opaque foreign bodies suggestive of recent ingestion because this finding may change management. 5. Emergently admit all symptomatic children to a hospital; if there is evidence of significant CNS pathology, consider PICU admission. If asymptomatic, consider hospitalization and/or chelation therapy (managed with the assistance of an ~~experienced provider~~) based on status of the home with respect to lead hazards, ability to isolate the lead source, family social situation, and chronicity of the exposure are factors that may influence management. 6. Contact ~~your regional~~ PEHSU or ~~PCC~~ for assistance.

[a] Adapted from Pediatric Environmental Health Specialty Unit. Medical Management of Childhood Lead Exposure and Poisoning. http://www.pehsu.net/_Library/facts/medical-mgmnt-childhood-lead-exposure-June-2013.pdf. Accessed April 9, 2018.

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TREATMENT OF CLINICAL SYMPTOMS

A multipronged management approach should be provided to all children with a BLL of 5 mcg/dL or greater,[11,15,16] (see Table 32-3). Proper management includes finding and eliminating the source of the lead, instruction in proper hygienic measures (personal and household), optimizing the child's diet and nutritional status, and close follow-up (see Tables 32-3 and 32-4). Because most children with higher BLLs live in or visit regularly a home with deteriorating lead paint, successful therapy depends on eliminating the child's exposure. Any treatment regimen that does not control environmental exposure to lead is considered inadequate. Pediatricians should refer children with elevated BLLs to local public health officials for environmental assessment of the child's residence(s), or other experts in childhood lead exposure, such as the regional Pediatric Environmental Health Specialty Unit (PEHSU). Public health staff should conduct a thorough investigation of the child's environment and family lifestyle for sources of lead. Childhood lead exposure is a multifaceted, complex

Table 32-4. Clinical Evaluation*

Medical History

Ask about

- Symptoms
- Developmental history
- Mouthing activities
- Pica
- Previous BLL tests
- Family/maternal history of exposures to lead

Environmental History

Paint and soil exposure

- What is the age and general condition of the residence?
- Is there evidence of chewed or peeling paint on woodwork, furniture, or toys?

~~How long has the family lived at that residence?~~

- Have there been recent renovations or repairs in the house?
- Are there other sites where the child spends significant amounts of time?
- What is the ~~character~~ of indoor play areas?
- Do outdoor play areas contain bare soil that may be contaminated?
- How does the family attempt to control dust/dirt?

Water exposure

- Does the child's home have leaded pipes or fixtures?
- Has the water been tested at that residence?
- Has the water been tested at other places where the child spends significant amounts of time?

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Table 32-4. Clinical Evaluation (*continued*)

Relevant Behavioral Characteristics of the Child
- To what degree does the child exhibit hand-to-mouth activity?
- Does the child exhibit pica?
- Are the child's hands washed before meals and snacks?

Exposures to and Behaviors of Household Members
- What are the occupations of adult household members?
- What are the hobbies of household members? (Fishing, working with ceramics or stained glass, and hunting are examples of hobbies that involve risk for lead exposure)
- Are painted materials or unusual materials burned in household fireplaces?

Miscellaneous Questions
- Does the home contain vinyl miniblinds made overseas and purchased before 1997?
- Does the child receive or have access to imported food, cosmetics, or folk remedies?
- Is food prepared or stored in imported pottery or metal vessels?

Nutritional History
- Take a dietary history
- Evaluate the child's iron status using appropriate laboratory tests
- Ask about history of ~~food stamps~~ or Special Supplemental Nutrition Program for Women, Infants, and Children program (WIC) ~~participation~~

Physical Examination
- Pay particular attention to the neurologic examination and to the child's psychosocial and language development
- Pay particular attention to stigmata of anemia, for example conjunctival pallor and tachycardia

[a]Adapted from Centers for Disease Control and Prevention.[11]

condition affecting not only the child's health and well-being, but also the family's housing security, economic status, job security, and stress level.

Deteriorated lead paint is the most common source of exposure, but other sources should be considered (see Table 32-1). BLLs should decrease as the child passes the age of 2 or so, and a stable or increasing BLL past that age is likely to be attributable to ongoing exposure. Among children who have spent prolonged periods in a leaded environment, BLLs will decrease more slowly after exposure ceases,[84] probably because bone stores are greater.

The CDC Advisory Committee on Childhood Lead Poisoning Prevention, the AAP, and the PEHSU network, among other sources, have published potential strategies for a multipronged approach to managing elevated ~~blood lead levels~~ in children (see Table 32-3).[10,15,35] No studies have identified effective strategies

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to reduce BLLs of less than 5 mcg/dL.[91] Treatment strategies in the primary care setting include family counseling and education about dietary sources of iron, calcium, vitamin C, vitamin D, and magnesium. Nutritional deficiencies can influence lead absorption and may have their own associations with neurodevelopmental sequelae independent of lead exposures. Specific attention should be paid to identifying and treating iron deficiency and ensuring adequate calcium and zinc intake.

Lead may cause neurotoxic injury known to impair later academic performance and affect life success. At a BLL of 5 mcg/dL or greater, children are 30% more likely to fail third grade reading and math tests and more likely to be non-proficient in math, science, and reading.[92,93] Thus, one of the recommendations for a young child with an elevated BLL is to refer the child to early intervention or a similar educational enrichment program. As of 2013, the majority of states specifically listed elevated ~~blood lead levels~~ or exposure to toxic substances as eligibility criteria for early intervention services.[94]

Chelation therapy for children with venous BLLs of 20 to 44 mcg/dL can be expected to lower BLLs but has not been shown to reverse or diminish cognitive impairment or other behavioral or neuropsychological effects of lead.[95] Chelation therapy is recommended if the venous BLL is greater than 45 mcg/dL and the exposure has been controlled. A pediatrician experienced in managing children with lead exposure should be consulted—these can be found through the PEHSUs,[85] ~~P~~oison ~~C~~ontrol ~~C~~enters, or through lead programs at state health departments (see Resources). Additional detailed medication treatment guidelines were published by the AAP.[96]

Prevention of Exposure

The reduction in childhood lead exposure in the United States over the past 4 decades is a testament to the success of a multipronged approach to widespread identification of children with lead exposures, enforcement of the housing code, facilitated residential inspections, careful mitigation and abatement efforts, and educational outreach to the lay public and health care providers by nongovernmental and governmental agencies. There remains the need to address the widespread issue of 'legacy lead': the contamination of housing and continued exposure of children in the United States. Because no safe blood lead level has been identified, in 2012 the CDC and the Advisory Committee on Childhood Lead Poisoning advised that the best way to end the problem is to control, prevent, or eliminate exposures.[10,11]

~~Primordial~~ prevention efforts must focus on removing lead from the environment before a child has a chance to become exposed. ~~Primordial~~ prevention efforts contrast to secondary prevention, the identification and management of individual cases after exposure already has caused elevated

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blood lead with potentially deleterious neurodevelopmental effects.[12] It is of paramount importance to implement ~~primordial~~ prevention techniques through ongoing identification of lead-contaminated housing and definitive abatement. It is estimated that each $1 invested in housing abatement of lead hazards results in a return of $17 to $221.[92] The most persistent source of lead in a child's environment–contaminated housing–has been the primary focus of prevention efforts. Individuals who conduct residential abatement (the removal and replacement of lead pipes, enclosure or encapsulation of lead-based paint or lead-contaminated dust or soil) must receive training to minimize further exposure to lead.[97,99] Paint stripping, covering painted areas by sealing or encasement, using high-efficiency particulate air (HEPA) vacuuming and HEPA air filters, and soil and dust removal are all effective methods for lead abatement. Removing all lead from homes and soil in the United States has not, however, been considered as a feasible prevention strategy because of the high cost of abatement. ~~The US EPA and other public health agencies have focused on both primordial lead poisoning prevention outreach.~~

The costs of remediating residential housing and plumbing are substantial and often pose formidable barriers to compliance by landlords, homeowners, and governmental agencies. Prevention approaches that focus on primary and secondary prevention efforts among high-risk communities are increasingly being used. An approach that incorporates neighborhood-level lead exposure data and census attributes (eg, percent of the population living below the poverty threshold; percent of old housing stock; percent of young children) has the benefit of concentrating the impact of the prevention effort in specific high-risk areas.[15,100,102]

Pediatric health care providers have important roles to play in case finding and managing childhood lead exposure. The testing and subsequent retesting of children with an elevated BLL is paramount in case finding and reducing the chronicity of lead exposure.

Frequently Asked Questions

Q *My child was tested and has elevated lead in his blood. How can I eliminate exposure?*

A In children with elevated blood lead levels, interventions have to be not only effective but also very safe. I am going ask you about potential sources of lead exposure in your home, will test your child for anemia and iron deficiency, and provide iron supplements if needed. We will talk about making sure he has the proper nutrition. I will refer you to our local health department to help identify the lead source and make sure that the source in your home is safely removed. Unsafe renovation practices can further expose children to lead hazards. Having a child with a BLL of 5 ~~or~~

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10 mcg/dL may be a source of concern, but no specific drug therapies have been tested and shown to be safe and effective at these low blood lead levels and are not recommended.

Q *What about testing for lead in water?*

A If you are using tap water to reconstitute infant formula or juice or there has been local concern, you may want to have your water tested. To help determine whether your water might contain lead, call the US Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791 or your local health department to find out about testing your water. Well water should be tested for lead when the well is new and tested again when a pregnant woman, infant, or child younger than age 18 years moves into the home. For a discussion of well water for infants, see the AAP policy statement on drinking water from private wells.[37] Most water filters, if used correctly, remove lead.

Q *We have imported cookware and use imported spices, cosmetics, and ayurvedic medicines. Is it safe to use them?*

A Some imported cookware contains lead. As the dishes wear or become chipped or cracked, lead can leach from the dishes into foods. The US Food and Drug Administration began regulating lead in cookware made in the United States in the 1980s and further strengthened regulations in the 1990s. Dishes made in the United States before these regulations took effect may contain lead. Studies have demonstrated that some imported spices such as turmeric, cosmetics such as kohl and sindoor, and ayurvedic medicines may be contaminated with lead. Because 80% of the spices used in the United States are imported, it is difficult to monitor all spices for contaminants. Although the U.S. Food and Drug Administration is working with other countries to improve the quality of imported spices, cosmetics, and supplements, it always is wise to consider that these products may be sources of lead. When possible, consider using products made in the United States.[52]

Q *Lead was found in my child's school drinking water fountain. Should I have tested for her blood lead level?*

A Under the Lead and Copper Rule, there are no special provisions that schools and public early education and childcare facilities that meet the definition of a public water system are required to be included as sampling locations. If an elevated water lead level was reported at your child's school, local resources such as the school, health department, or Pediatric Environmental Health Specialty Unit can be contacted to determine if blood lead level testing is indicated. It is important to take actions to minimize all sources of lead exposure. The primary source of lead exposure for most US children is from contaminated dust and soil. Schools should

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work with local, state, and regional resources to establish programs to test for lead in drinking water and other media (eg, lead-based paint and soil) and to develop a coordinated health messaging response for families and their communities. The US EPA has developed a 3Ts (Training, Testing, and Telling) toolkit to assist school and childcare facilities to address lead in drinking water in their local communities (see Resources).

Q *I saw my toddler eating a piece of lead-containing paint. What should I do?*

A Bring your child to the office so we can test him for lead. He may have ingested similar substances even before you noticed him eating the paint chip. Levels of lead in the blood rise rapidly (within hours to days) and can continue to rise as the paint chip moves through his digestive system. Once the object has been excreted, the blood level will fall to a new level over the next month. If his lead level is 15 mcg/dL, I may want to get an abdominal radiograph to see if there is lead there. If that is the case, I will consult with experts in lead exposure to see about next steps. I also will check your child for iron deficiency and treat him with iron if needed.

Your local or state health department may become involved to provide education or visit your home to determine the source of lead exposure. It is important to ask about reliable resources in the community to help to resolve the lead problem, if needed; health departments often are not able to provide this service themselves.

Q *Is there still lead in canned food?*

A Cans with soldered seams can add lead to foods. In the United States, soldered cans have been replaced by seamless aluminum containers, but some imported canned products still have lead-soldered seams.

Q *What are resources for lead?*

A There are several resources for lead exposure and prevention. Please contact ~~your regional~~ Pediatric Environmental Health Specialty Unit (PEHSU) ~~N~~etwork, ~~P~~oison ~~C~~ontrol ~~C~~enter, or local public health department's childhood lead poisoning prevention program for further information.

Q *How can I tell if a toy has lead paint or is made of lead?*

A Toys are not all routinely tested for lead. Companies that do not uniformly test the toys before selling them import many toys from countries with poorly enforced safety rules. The AAP advises parents to monitor the Consumer Product Safety Commission Web site for notices of recalls and to avoid non-brand toys and toys from discount shops and private vendors. Old and used toys should be examined for damage and clues to the origin of the toy. If the toy is damaged or worn or from a country with a history of poor monitoring of manufacturing practices, the safest action is to not let your child use it. Be particularly attentive to costume jewelry and other small metal pieces that can be swallowed.

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Resources

Centers for Disease Control and Prevention Childhood Lead Poisoning Prevention Program
~~Tel:~~ 1-800-232-4636
Web site: www.cdc.gov/nceh/lead

EPA National Lead Information Center
~~Tel:~~ 1-800-424-LEAD
Web site: https://www.epa.gov/lead/forms/lead-hotline-national-lead-information-center

EPA Office of Children's Health Protection
~~Tel:~~ 202-564-2188
Web site: https://www.epa.gov/children

EPA Safe Drinking Water Hotline
~~Tel:~~ 1-800-426-4791

EPA's 3Ts (Training, Testing, and Telling Approach) for Reducing Lead in Drinking Water in Schools
Web site: www.epa.gov/dwreginfo/lead-drinking-water-schools-and-child-care-facilities

Office of Healthy Homes and Lead Hazard Control, Department of Housing and Urban Development
Web site: www.hud.gov/offices/lead

Pediatric Environmental Health Specialty Unit (PEHSU) Network
~~Tel:~~ 888-347-2632
Web site: www.pehsu.net

Poison Control Center (PCC)
~~Tel:~~ 1-800-222-1222
Web site: www.aapcc.org/

President's Task Force on Environmental Health Risks and Safety Risks to Children, Key Federal Programs to Reduce Childhood Lead
Web site: https://ptfceh.niehs.nih.gov/

~~U.S.~~ Environmental Protection Agency (EPA) Lead Paint Program
~~Tel:~~ 1-800-424-5323
Web site: www.epa.gov/lead

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Ed: No reference numbered 64 in word doc. Are callouts in text OK?

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Message

From: Firestone, Michael [Firestone.Michael@epa.gov]
Sent: 8/30/2018 2:34:26 PM
To: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]; Hughes, Hayley [hughes.hayley@epa.gov]; Grantham, Nancy [Grantham.Nancy@epa.gov]
CC: Etzel, Ruth [Etzel.Ruth@epa.gov]; Hackel, Angela [Hackel.Angela@epa.gov]
Subject: RE: Lead Strategy Comments discussions w/ Helena
Attachments: 8-30-18 Summary version of the Draft Federal Lead Strategy.docx

Sorry,

Here's the current draft of the summary version.

Michael P. Firestone, Ph.D., Acting Deputy Director
Office of Children's Health Protection (MC 1107T)
U.S. Environmental Protection Agency
Office: 202-564-2199
Cell: Ex. 6

From: Firestone, Michael
Sent: Thursday, August 30, 2018 10:13 AM
To: Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>; Hughes, Hayley <hughes.hayley@epa.gov>; Grantham, Nancy <Grantham.Nancy@epa.gov>
Cc: Etzel, Ruth <Etzel.Ruth@epa.gov>; Angela Hackel (Hackel.Angela@epa.gov) <Hackel.Angela@epa.gov>
Subject: RE: Lead Strategy Comments discussions w/ Helena

All

For this afternoon's meeting, please find very slightly revised versions of:

Hayley's spreadsheet with OCHP additions

Draft Strategy (both long & short versions)

Draft briefing slides

Michael P. Firestone, Ph.D., Acting Deputy Director
Office of Children's Health Protection (MC 1107T)
U.S. Environmental Protection Agency
Office: 202-564-2199
Cell: Ex. 6

-----Original Appointment-----
From: Wooden-Aguilar, Helena
Sent: Wednesday, August 29, 2018 7:17 PM
To: Wooden-Aguilar, Helena; Firestone, Michael; Hughes, Hayley; Grantham, Nancy
Subject: Lead Strategy Comments discussions w/ Helena
When: Thursday, August 30, 2018 2:30 PM-3:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: WJC-N., Rm., 3304A

Message

From: Basden, Phyllis [Basden.PhyllisC@epa.gov]
Sent: 10/15/2018 2:18:12 PM
To: Dzubow, Rebecca [Dzubow.Rebecca@epa.gov]; AO-OCHP-Everyone [AOOCHPEveryone@epa.gov]
Subject: RE: Peters, Stabenow & Kildee Press EPA on Dismissal of Children's Health Protection Office Director

Thanks Rebecca.

From: Dzubow, Rebecca
Sent: Friday, October 12, 2018 9:22 AM
To: AO-OCHP-Everyone <AOOCHPEveryone@epa.gov>
Subject: Peters, Stabenow & Kildee Press EPA on Dismissal of Children's Health Protection Office Director

10.11.18

Peters, Stabenow & Kildee Press EPA on Dismissal of Children's Health Protection Office Director

WASHINGTON, D.C. – U.S. Senators Gary Peters and Debbie Stabenow and U.S. Representative Dan Kildee today wrote a letter to U.S. Environmental Protection Agency (EPA) Acting Administrator Andrew Wheeler about the removal of the EPA's Office of Children's Health Protection Director, Dr. Ruth Etzel. The lawmakers pressed Wheeler for more details surrounding the dismissal, especially during a period when families across Michigan are facing numerous drinking water contamination crises.

"It is imperative that the EPA takes every possible step to avoid childhood exposure to unsafe toxins like lead and PFAS and ensure all children are able to grow up happy and healthy," **wrote Peters, Stabenow and Kildee**. "As the federal government works to reduce the unnecessary incidence of asthma, developmental delays, and cancers, the EPA needs to keep a strong focus on the youngest Americans, who are most vulnerable to the negative impacts of environmental toxins. We request more information about a sudden personnel decision that suggests the EPA is not following through with its stated commitment to prioritizing children's health."

"Our home state of Michigan experienced one of the nation's largest man-made environmental disasters with lead-contaminated drinking water in Flint...But the most heartbreaking stories were from parents, whose children are facing significant physical, cognitive and developmental challenges from lead exposure," **the Members continued.** "Going forward, we need to ensure we have a strong national infrastructure to prevent a scenario like the Flint water crisis from ever happening again, and the Office of Children's Health Protection is key to this strategy."

The lawmakers asked Acting Administrator Wheeler for more details regarding why the agency decided to remove Dr. Etzel, and requested additional information on how the Office of Children's Health Protection will maintain day-to-day operations in her absence.

A copy of the letter can be found here and below:

October 11, 2018

Andrew Wheeler

Acting Administrator

U.S. Environmental Protection Agency

1200 Pennsylvania Avenue, N.W.

Washington, DC 20460

Dear Acting Administrator Wheeler:

We are writing to express serious concerns and request further information about the U.S. Environmental Protection Agency (EPA)'s abrupt decision to place Dr. Ruth Etzel on administrative leave from the position of Director of the Office of Children's Health Protection. The EPA has not provided sufficient justification for the dismissal of a senior non-political professional with decades of expertise in protecting children from unsafe exposure to toxins and chemicals, nor has the agency identified a new candidate willing to perform the duties of this office. The Office of Children's Health Protection is critical in an era where toxins in our environment, including lead, mercury, and per/polyfluoroalkyl substances (PFAS), introduce developmental and health barriers to thousands of American youth.

Our home state of Michigan experienced one of the nation's largest man-made environmental disasters with lead-contaminated drinking water in Flint. We heard from thousands of constituents, who were forced to use bottled water to drink, cook and bathe. To this day, many still do not trust the water coming from their faucets. But the most heartbreaking stories were from parents, whose children are facing significant physical, cognitive and developmental challenges from lead exposure. Children are the most vulnerable to the ill effects of lead exposure, and they will experience the longest-term impact. Going forward, we need to ensure we have a strong national infrastructure to prevent a scenario like the Flint water crisis from ever happening again, and the Office of Children's Health Protection is key to this strategy.

The Flint water crisis is just one example of how childhood exposure to toxins can undermine the prosperity of an entire community. Children in lower income and minority communities continue to bear most of the health burden from mercury-emitting coal-fired plants. Each day, we also learn more about the chronic health conditions that develop as a result of widespread exposure to PFAS. Further research is needed on the health impacts caused by this class of over 4,700 industrial chemicals, but we already know certain PFAS increase the risk of some cancers, harm the immune and endocrine systems, and negatively affect the growth, learning, and behavior of infants and children.

Based on publicly available facts, Dr. Etzel is well-qualified for the position of Director at the Office of Children's Health Protection. She is a world-renowned pediatrician and epidemiologist

with over three decades of experience aligned with the office's mission. Prior to becoming the office's Director in 2015, she served as a senior officer for environmental health research at the World Health Organization and received numerous national awards for her work. Dr. Mona Hannah-Attisha, a pediatrician who played a central role in elevating the impact of the Flint water crisis on children, describes Dr. Etzel as "an international leader in children's health."

The EPA has stated that children's health remains a top priority for the Administration at the same time it has dismissed, without apparent reason, the head of the office that oversees children's health. As such, we request the EPA respond to the following requests for information within 30 days:

- What is EPA leadership's reasoning and justification for Dr. Etzel's removal?
- Which EPA officials were consulted and ultimately made the decision to place Dr. Etzel on leave?
- How was Dr. Etzel notified of the decision to place her on leave?
- How will this personnel decision impact the EPA's ability to perform its mission of reducing environmental risk factors for children's health?
- How many full-time staff have been budgeted within the Office of Children's Health Protection for Fiscal Year 2017, 2018, and 2019?
- Who is performing the duties of Director of the Office of Children's Health Protection currently?
- When does EPA intend to hire a new Director for the Office of Children's Health Protection?
- How long does EPA intend to provide administrative leave and other employment benefits for Dr. Etzel?

It is imperative that the EPA takes every possible step to avoid childhood exposure to unsafe toxins like lead and PFAS and ensure all children are able to grow up happy and healthy. As the federal government works to reduce the unnecessary incidence of asthma, developmental delays, and cancers, the EPA needs to keep a strong focus on the youngest Americans, who are most vulnerable to the negative impacts of environmental toxins. We request more information about a sudden personnel decision that suggests the EPA is not following through with its stated commitment to prioritizing children's health.

https://www.peters.senate.gov/newsroom/press-releases/peters-stabenow-and-kildee-press-epa-on-dismissal-of-childrens-health-protection-office-director

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Rebecca C. Dzubow, MPH, MEM
Health Scientist
U.S. EPA Office of Children's Health Protection | Regulatory Support and Science Policy Division
1200 Pennsylvania Avenue, NW (1107T) | Washington, DC 20460
(202) 564-0967
~~~~~~

Message

From: Dzubow, Rebecca [Dzubow.Rebecca@epa.gov]
Sent: 10/12/2018 1:26:48 PM
To: AO-OCHP-Everyone [AOOCHPEveryone@epa.gov]
Subject: Wheeler Affirms Children's Health Focus Amid Office Director Controversy

Wheeler Affirms Children's Health Focus Amid Office Director Controversy

October 11, 2018

Acting EPA Administrator Andrew Wheeler in a new memo is "reaffirming" the agency's commitments to its children's health programs and specifically the Office of Children's Health Protection (OCHP), the latest step in the agency's efforts to mitigate controversy over the sudden removal of the office's former director in September.

Wheeler's Oct. 11 memo backs the Clinton-era "Policy on Evaluating Health Risks to Children" that was first established in 1995, as well as the continued role of OCHP in implementing that agenda. The move appears to be an attempt to address fears by Trump administration critics that the removal of Ruth Etzel as the office's chief on Sept. 25 was the first step toward sidelining OCHP or shuttering it altogether.

"The EPA Office of Children's Health Protection plays an essential leadership role in protecting children through engagement on key children's health issues. OCHP will continue to work with internal and external stakeholders in risk communication and training, as well as scientific and policy analyses," Wheeler's memo says.

It is still unclear why Etzel was placed on leave last month. Wheeler's most direct public comment on the issue was at an Oct. 1 National Child Health Day event, where he reiterated a Sept. 28 statement from his chief of staff, Ryan Jackson, that while "we don't typically comment on personnel issues, we did put out a short statement [last] Friday saying she's suspended while we investigate some allegations."

However, Senate Democrats are seeking more details on the futures of Etzel and OCHP overall. An Oct. 4 letter from five Democratic members of the Senate appropriations panel that oversees EPA's budget, led by ranking member Sen. Tom Udall (D-NM), have given Wheeler a deadline of Oct. 18 to answer a series of questions on his plans for the office and its leadership.

Other critics of the Trump administration, including environmentalists and academics, have attacked Wheeler for removing Etzel from her post at OCHP while continuing to push a deregulatory agenda that they claim poses unique threats to children's health.

"The Trump administration is celebrating National Child Health Day by moving forward with a proposal to attack limits on lead, mercury and other dangerous air pollution from the nation's coal-fired power plants, putting children at risk from known brain poisons and toxic pollutants," the Natural Resources Defense Council said in a statement.

Shortly after Etzel's removal, Barbara Morrissey, the chair of EPA's Children's Health Protection Advisory Committee -- which is meeting in Washington, D.C., Oct. 11-12 -- told *Inside EPA*, "I'm really dismayed. . . . It's a great loss to EPA and to children's environmental health."

Wheeler's new memo does not explicitly state what OCHP's policy responsibilities will be going forward, but says that the office's "national scope and mission remains invaluable in working collaboratively with states, tribes and local governments to provide solutions that contribute to healthy and thriving children and communities."

Further, it says of the 1995 policy, "I am confident that each of the EPA's program offices, in partnership with OCHP and the regions, will intensify efforts to implement this policy that is critical to our nation's future. This increased focus will help ensure that all children, especially those in vulnerable communities, can thrive by living, learning and playing in healthy environments." -- *David LaRoss* (dlaross@iwpnews.com)

https://insideepa.com/daily-news/wheeler-affirms-childrens-health-focus-amid-office-director-controversy

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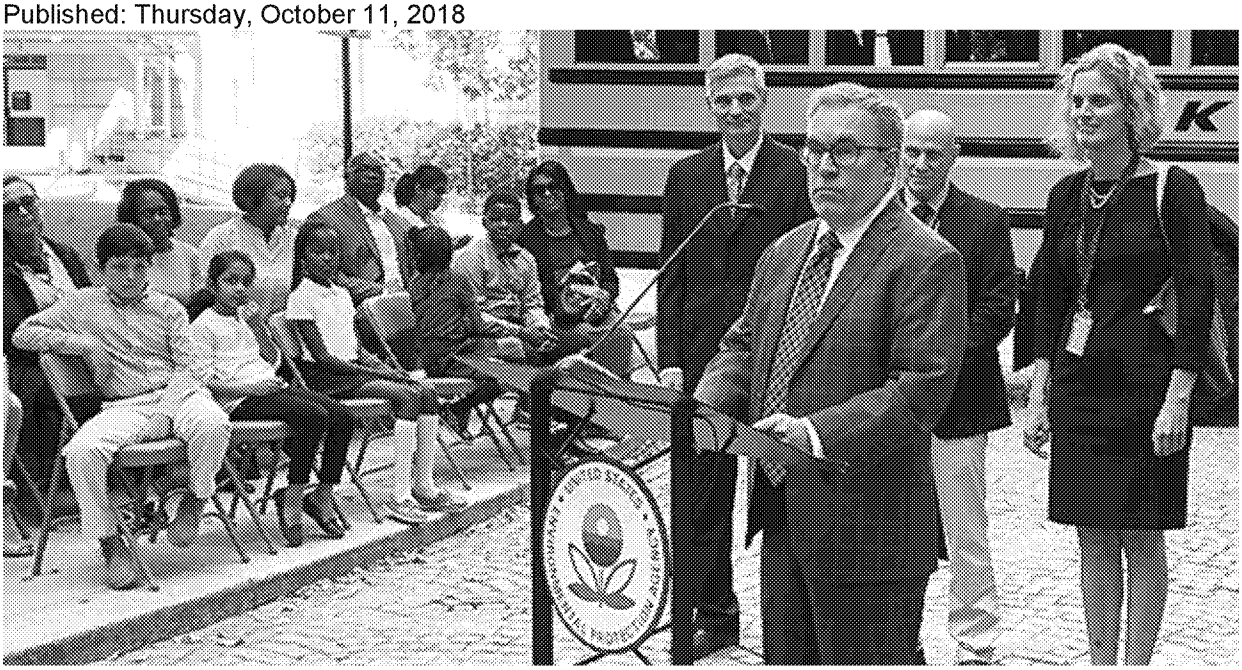
Message

From: Dzubow, Rebecca [Dzubow.Rebecca@epa.gov]
Sent: 10/11/2018 6:07:26 PM
To: AO-OCHP-Everyone [AOOCHPEveryone@epa.gov]
Subject: EPA: Damage control follows official's mysterious exit

EPA: Damage control follows official's mysterious exit

Ariel Wittenberg, E&E News reporter

Published: Thursday, October 11, 2018



Acting EPA Administrator Andrew Wheeler speaking at a recent children's health event at the agency. EPA senior scientist Michael Firestone is seen standing behind him in the center. Kevin Bogardus/E&E News

The Trump EPA is clamoring to defend its commitment to children's health after the ouster of a senior career official prompted a cascade of criticism.

The agency last week mysteriously placed the head of its children's health office on administrative leave, sparking outcry from environmentalists, public health advocates and agency employees. Since then, EPA officials have been trying to shift the narrative, insisting in press conferences, news releases and interviews that the program isn't in jeopardy. Still, critics remain suspicious after the administration has sought major cuts to the already tiny Clinton-era office.

"My discussions in the last couple of weeks is that children's health is incredibly important, it remains a very important issue for EPA, and that's unlikely to change," Michael Firestone, the acting director of EPA's Office of Children's Health Protection, told E&E News this week in an interview at agency headquarters. Firestone, a career scientist who joined the agency more than 30 years ago, became the head of the office last week after Ruth Etzel was put on administrative leave.

Agency officials have declined to give details about Etzel's abrupt departure, saying they don't comment on personnel matters. But the move prompted questions about whether EPA was trying to eliminate the office altogether. EPA has since said that Etzel was placed on leave to allow the agency to review "allegations about the Director's leadership of the office."

It remains unclear when, or if, Etzel will return to the post. She did not respond to requests for comment for this story.

Advertisement

EPA has pushed back against the idea that it is dismantling the office, with acting Administrator Andrew Wheeler saying "nothing could be further from the truth" at an event celebrating children's health last week, where he appeared next to a school bus (*Greenwire*, Oct 1).

Henry Darwin, who is acting as EPA's deputy administrator, stressed his personal commitment to the issue today.

"Growing up with a father who is a pediatrician, there is no denying the fact that I developed an appreciation for children's health issues, and I got to see a lot of those issues firsthand," he said during a meeting of EPA's Children's Health Protection Advisory Committee. Darwin said he "probably would have become a pediatrician myself," had he not fainted while helping his father hold down a child who was getting stitches.

Also last week, EPA spokesman John Konkus' office pre-emptively contacted E&E News, offering to help with a story about the children's health office.

Konkus said he had heard that E&E was working on the story after E&E interviewed members of the Children's Health Protection Advisory Committee and others close to the EPA office. He wrote in an email that the agency wanted to "work with you to ensure E&E has a full and accurate understanding of the office and the important role it plays in protecting human health and the environment."

Konkus agreed to allow an in-person interview with Firestone on the condition that E&E did not ask about Etzel or her status.

The press office also provided an email that EPA Chief of Operations Henry Darwin sent to members of the Children's Health Protection Advisory Committee outlining the administration's commitment to the children's health office.

"Despite of what you may have heard in the media or from people who are unaware of what is actually going on, EPA remains fully committed to protect children's health and will soon announce several initiatives," he wrote. "Dr. Etzel was not placed on leave to diminish EPA's Children's Health Program. Children's Health is an extremely important program for the agency and therefore EPA is seeking a strong leader to move the program forward."

He continued to say that EPA "recognizes one of the most important things we can do to protect our children's future is to make sure they grow up in healthy environments. So, I want to reaffirm one of our top priorities at EPA continues to be the protection of children where they live, learn, and play."

Protecting 'our future'

The children's health office was created in 1997 following an executive order from President Clinton directing agencies to study and find ways to minimize the disproportionate risks toxins can pose to kids.

Just a few years earlier, the National Academy of Sciences had published a study on how children could be more vulnerable to pesticides than adults and recommending a number of regulatory changes. The study is largely credited with making policymakers aware of the differences between how toxins affect kids and adults.

While children had previously been thought of as "little adults," new research had shown that developing bodies have different abilities to process chemicals at different life stages. What's more, children's unique behaviors — like breastfeeding and crawling — make them more likely to come into contact with certain contaminants than adults.

The creation of the new EPA division dedicated resources and attention to those discrepancies, ensuring agency rulemakings and literature reflected them.

For the past 20 years, program staff have participated in working groups for various rulemakings and helped develop agencywide policies on how to factor children's health into regulatory decisions. The children's health office at EPA, along with the Department of Health and Human Services' Agency for Toxic Substances and Disease Registry, also funds and supports a system of Pediatric Environmental Health Specialty Units across the country, which advise pediatricians treating patients who have been exposed to toxins.

"They are the ones translating the science ... into meaningful policy and dialogue. What they do is critical," said Laura Anderko, director of Georgetown University's Mid-Atlantic Center for Children's Health and the Environment.

Firestone arrived at EPA in the mid-1980s, working on risk assessments for the Office of Chemical Safety and Pollution Prevention.

What he saw back then makes the case for a strong children's health office today, he said.

While the agency had been weighing children's exposure to contaminants for some rulemakings, different program offices looked at the issue "in different ways," looking at exposure levels in children of different ages for different regulations, making them "totally incompatible."

One of the first things Firestone worked on when he joined the children's health office in 2000 was guidance for considering kids' exposure when writing regulations.

"If we didn't do that, who would do that for the agency?" he said. "Who would make sure we are consistent? And make sure not just that we care about kids, but that we try to do it in a more consistent, more scientific fashion?"

The office has also made major changes to how EPA thinks about childhood itself, which in turn influences how the agency weighs children's vulnerability to toxins. EPA used to consider children as one "susceptible population," without any distinctions for how developmental, behavioral and weight changes at different ages could influence kids' exposure to contaminants. Now, EPA thinks of childhood as a series of "life stages" — including infancy and adolescence — associated with different behaviors, biology and exposure pathways.

"Children, to me, they are not some little group of people playing over in the kindergarten area — we are all children at some point," Firestone said, noting that exposure to some kinds of chemicals in childhood — like lead — can lead to lifelong problems. "I look at children's health as a critical aspect of human health. If we don't protect children, we're not protecting not only our future, but ourselves."

Trump sought big budget cuts

Public health advocates are still worried about the future of the EPA office and say they don't buy the administration's explanation that Etzel was put on leave due to questions about her leadership.

"Ruth Etzel has played a clear role, knows a lot about lead and other problems," said David Jacobs, chief scientist for the National Center for Healthy Housing, who previously ran the Department of Housing and Urban Development's lead healthy homes program between 1995 and 2005. "This administrative leave is just another chapter in the administration's effort to move people who are skilled scientists to the sidelines so they can't act."

Jacobs and others see Etzel's status as just the latest indication that the Trump EPA is not supportive of the office.

The Trump administration has twice asked Congress to slash the program's budget from $5.4 million to $1.4 million — a cut that would decrease its staff from 15 to five employees. Its staff already represents a small fraction of EPA's roughly 15,000 employees.

Public health advocates became more concerned about the program's future in late September when the Trump administration published an organizational chart for EPA that did not include the children's health office. A more recent chart shared with EPA employees on Oct. 3 did include the division, but by that time, Etzel had been placed on leave.

Anderko of Georgetown University called the proposed budget cuts "like asking one cop to police all of New York City," and said the cuts, coupled with Etzel's leave and the organizational chart, "together seem like the perfect storm."

EPA says the organizational chart issue is a misunderstanding. Spokeswoman Nancy Grantham wrote in an email that the initial organizational chart did not include the office because it was a "high level view of the proposed organization," while the second version from October was a "more detailed chart that included incorporating multimedia programs such as Environmental Education, and Children's Health and the geographical programs into the proposed organization."

Grantham also defended the president's budget request, saying it "focuses agency efforts on activities required by statute" and "supports work in EPA's Office of Children's Health Protection which would continue to coordinate and advance the protection of children's environmental health throughout the agency as a critical part of EPA's mission."

The American Academy of Pediatrics and more than 40 other children's health groups have asked Wheeler for a sit-down meeting, telling him in a letter that placing Etzel on leave "has sent a signal that children's health is not a priority at EPA."

The groups "ask that EPA immediately clarify what action it has taken with regards to Dr. Etzel and with regards to OCHP, and make no further attempts to dismantle, re-organize, diminish or otherwise reduce the abilities and authorities of OCHP."

Maureen Swanson, the co-leader of Project TENDR, a children's health advocacy group whose acronym stands for Targeting Environmental Neuro-Development Risks, agreed.

"OCHP is supposed to be the voice for children throughout the EPA, and if that voice is being sidelined and silenced, which seems like a possibility, that threatens children's health across the board, whether it is water pollution, air pollution or toxic chemicals," she said.

Swanson and Anderko also note that the Trump administration has pursued regulatory rollbacks that could put kids at risk.

Those include EPA's reconsideration of regulations requiring that workers handling pesticides be over the age of 18. While the Trump administration's efforts to repeal the certification and training of pesticide applicators and pesticide worker protection standards have been delayed by litigation, advocates say they are key examples of how EPA has de-emphasized children's health.

Firestone actually worked on both the original minimum age requirements and the reconsideration of those rules.

That means he has provided "the same kind of data" on brain development and impacts from specific pesticides to the pesticide office for both rulemakings, while also researching whether "there is any new data that could make us want to change our minds or come up with a different conclusion," he said.

Asked whether he felt uncomfortable working on an effort to repeal standards many say are protective of children's health, Firestone noted that his office is not itself a regulatory program, instead advising others who write the rules.

"One of the nice things about my job is I'm able to tell people what I think, what I know as a scientist," he said. "Things that go into risk management decisions — whether it is how to manage a risk or rule development — are things that are not under my purview, but I can provide input."

Reporter Kevin Bogardus contributed.

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https://www.eenews.net/greenwire/2018/10/11/stories/1060102311

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Message

From: Spire, Paul [PSpire@aap.org]
Sent: 9/11/2018 10:22:05 PM
To: Etzel, Ruth [Etzel.Ruth@epa.gov]
Subject: final 2 chapter proofs
Attachments: 32_PEH_ch32_000-000.gm.rev1.pdf; 32 - Lead.docx; 58_PEH_ch58_1039-1052.gm.edit.pdf

Hi Ruth.

I am writing to convey the attached final 2 page proofs: climate change and lead.

I wanted to alert you that there are unfortunately some reference issues in the "lead" chapter:

1) There was no reference #64 included in the Word document that we originally submitted for layout. This was a mistake, which neither you or Sophie, I, nor Gayle previously noticed. The layout person adjusted the numbering in the reference list for all of the citations after # 63 so the list numbering was continuous. They did not, however, adjust the reference call-outs in the body of the document to match. I believe reducing all of the call-outs beyond 63 in the body of the document might resolve the issue. However, further confusing matters, there is already a call-out to reference 64 in the body of the document, even though there was no reference 64. I have tried sussing this out, but I didn't want to renumber every wrongly and think this is one that you should probably look at. In case it is helpful, I am also attaching the Word version we submitted.

2) There is a figure on the 3rd page, figure 32-1. In the caption, it has 2 references numbered 104 and 105. If leaving these references here, that would trigger a renumbering of the document from this point forward. However, after discussing with publications, I would recommend that the caption be modified to say "Reproduced from AAP Council of Environmental Health (15)" and delete the portion that says "adapted from Lanphear et al (104) and Spanier et al. (105)." We only need to provide the reference for the reproduced item, #15. We don't need to drill down further to provide the references that were used in the thing that is referenced. (This isn't done anywhere else in our book or in any book that I can think of…) The Lanphear and Spanier references 104 and 105 can then also be deleted from the end of the reference list.

Many thanks,

Paul

Chapter 32

Lead

Board review: 2018-05-23

Key Points

- There is no safe level of lead.
- Disparities persist that disproportionately expose certain populations of children and pregnant women to lead exposure.
- The sources for most children with elevated blood lead levels today are lead-laden dust and paint chips from deteriorating lead paint on interior surfaces.

Introduction

Childhood lead toxicity has been recognized for more than 100 years. As recently as the 1940s, many people believed that children with lead poisoning who did not die during an acute toxic episode had no residual effects. After it was recognized that learning and behavior disorders occurred in children who recovered from acute toxicity, many believed that only children with frank symptoms suffered neurobehavioral deficits. Starting in the 1970s and continuing today, studies worldwide consistently demonstrated that asymptomatic children with increasing levels of lead had lower IQ scores,[1,2,3] more language difficulties,[4] attention problems,[5] and behavior disorders.[6,7] With better epidemiological studies, the definition of a harmful level of lead has changed markedly. Abundant scientific evidence now shows that blood lead levels (BLLs) below 10 mcg/dL are associated with adverse cognitive, behavioral, and other effects in infants and children.[3,8,9] Based on this evidence and other important longitudinal prospective studies, in 2012 the Advisory Council on Childhood Lead Poisoning Prevention convened by the Centers for Disease Control & Prevention (CDC) cited new scientific data that documents adverse health effects of lead on infants and children at venous blood concentrations below 10 mcg/dL.[10] In response to this report, the CDC created a reference value of 5 mcg/dL, based on the 97.5th percentile of the BLL distribution among children age 1 to 5 years. The CDC used data generated by the National Health and Nutrition Examination Survey (NHANES) rather than a health-based action level.[11] The report emphasized the importance of and focus on primary prevention efforts given the lack of an identified threshold without deleterious neurodevelopmental effects and evidence that these effects appear to be irreversible.

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It is estimated that 500,000 children (2.5%) younger than 6 years in the United States have BLLs at or above the current CDC reference level.[12,13] Children living in 3.6 million US households are currently exposed to lead hazards.[12] The continued exposure of thousands of children to lead-laden dust and paint chips in deteriorating housing mars what would otherwise be a public health triumph. Although lead levels have decreased in all children tested, environmental health disparities persist that disproportionately affect low-income and minority families and communities.[14] (See At-Risk Populations and Chapter 55, Environmental Equity).

The CDC emphasizes that the best way to end childhood lead poisoning is to prevent, control, and eliminate lead exposures. The CDC[11] and the American Academy of Pediatrics (AAP)[15] currently use the reference value of 5 mcg/dL as the level that should prompt public health action. The focus has shifted from the care of symptomatic children toward a primary prevention approach targeting communities most at risk of lead poisoning.[11,16] Reducing or eliminating the myriad sources of lead exposures before exposures occur is the most reliable and cost-effective measure to protect children from lead toxicity.[15,17] Because of universal and targeted blood testing of children for lead exposure, pediatricians commonly find themselves participating in or even directing these activities.[15]

Routes and Sources of Exposure

Children may be exposed to lead through the unintentional ingestion of lead-containing particles, such as dust from paint, soil, or ongoing renovations; or from contaminated water (See Figure 32-1). Lead can be absorbed from the pulmonary tract if inhaled as fumes or respirable particles. Lead is transmitted in human milk.

Lead (Pb) is a metallic element. In the United States, there have been 2 major sources of industrially derived lead for children: airborne lead, mostly from the combustion of gasoline containing tetraethyl lead; and lead-laden dust and debris, mostly from deteriorating lead-based paint.[11] The largest declines in blood lead levels occurred from the 1970s to the 1990s, following the elimination of lead in motor vehicle gasoline, the ban on lead paint for residential use, removal of lead from solder in food cans, bans on the use of lead pipes and plumbing fixtures, and other limitations on the uses of lead.[12](See Figure 32-2) Federal legislation in the 1970s resulted in removal of lead from motor gasoline and reduced smokestack emissions from smelters and other sources, causing BLLs in children to decrease; lead in aviation gasoline, however, still persists today.[18] The use of heavily leaded paint on interior surfaces ceased in the United States by 1978[15] but there still are significant lead paint hazards in 3.6 million homes inhabited by at least 1 child younger than age 6. Exposure is likely in situations where lead-based paint exists in deteriorated conditions.[19,20] Soil contaminated from 'legacy' sources of lead (leaded gasoline and lead-based paint) can recontaminate remediated houses.[21,22] Residual lead in soil in areas heavily affected by airborne lead, such as around smelters, continues to be a problem even decades after the worst sites are closed.[23]

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The source for most children with elevated BLLs today is lead-laden dust and paint chips from deteriorating lead paint on interior surfaces. Young children living in homes with deteriorating lead paint can achieve BLLs of at least 20 mcg/dL without frank pica (ingestion of nonfood items).[24] This exposure commonly arises from normal, developmentally appropriate hand-to-mouth behavior in an environment that is contaminated with lead dust. Children with lower blood lead levels (less than 10 mcg/dL) may have continuous exposures from multiple sources including food, water, soil, and dust.

Lead plumbing (Latin "plumbus" means lead) has contaminated drinking water for centuries, especially if the water has high or low acidity or low mineral content. This was unfortunately exemplified most recently through contaminated drinking water affecting Flint, Michigan. This contamination was the result of several preceding events. The community's water source was changed, resulting in the need to augment disinfection processes. The disinfection processes were done without appropriate corrosion control procedures, leading to an increase in leaching of lead from corroding leaded and galvanized pipes, solder, and plumbing fixtures. Studies of this community identified a statistically significant increased odds of having an elevated blood lead level in the period following the switch in drinking water source.[25,26] The majority of elevated BLLs tested were in the 5 to 9 mcg/dL range, although few children younger than age 1 were tested.[25]

The Environmental Protection Agency (EPA)'s Lead and Copper Rule is a treatment technique rule to help minimize water contamination in public water systems. This rule employs an action level as a screening tool to determine when certain treatment technique actions are needed. The rule sets a target concentration ("action level") of 0.015 mg/L (15 parts per billion [ppb]) and recommends remediation measures such as corrosion control treatment, source water monitoring, public education, and potentially lead service line replacement if the action level is exceeded in more than 10% of tap water sampled.[12] Notably, the federal government recommends but does not require testing of water in schools or childcare facilities that meet the definition of a public water system. No testing is required for private wells, although private wells account for 10% to15% of the population's water sources.[27] As suggested by a 2016 National Resources Defense Council report, water violations persist throughout the United States and have for a number of years.[28] In 2015, more than 5,000 community water systems, serving 18 million people, violated the Lead and Copper Rule.[28] Of these, 1,110 community water systems, serving 3.9 million people, had water lead levels in excess of 15 ppb in at least 10% of homes tested.[28] Infants who consume reconstituted formula, people living in neighborhoods with high levels of socioeconomic disadvantage, and minority populations are at increased risk of lead poisoning from contaminated drinking water.[26] As a result of emerging concerns over lead and water contamination, the US EPA has been working with states, public water systems, and water sector stakeholders to revise existing rules and regulations, identify challenges, and promote best practices.[12] There is no safe level of lead in water; despite this fact, no health-based 'household action level' currently exists.[12] Various regional and state-level resources exist for testing individual drinking water at the tap and mitigating lead contamination in drinking water. Mitigation measures include installing charcoal-based water filters designed to remove lead, using cold water for cooking and formula preparation, allowing water to flush prior to use, and

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supplying resources to assist school and childcare facilities to minimize water contamination from lead. (See Table 32-1 and Resources)

Children also may be exposed to lead fumes or respirable dust resulting from unsafe remediation practices such as sanding or heating old paint; burning or melting automobile batteries, or melting lead for use in a hobby or craft. Childhood lead poisoning from toy jewelry has occurred including a fatality in a child who ingested a lead charm.[29,30,31] Lead has been found in older toys made in the United States, imported toys painted with lead-based paint, and plastic toys and vinyl that used lead as a softener.[31,32] Since 2008, the US Consumer Product Safety Commission (CPSC) has set requirements for third-party testing and certification by manufacturers and importers to help reduce the number of non-complying products entering the market.[12] Ongoing CPSC surveillance in partnership with other federal and state agencies demonstrated a reduction in the number of required recalls of these contaminated toys. These agencies collaborate with importers and manufacturers to prevent further importation of products containing unsafe amounts of lead.[12] Although individual children could chew on or ingest these products resulting in lead absorption, the extent to which toys and plastics contribute to lead exposure in most children is not clear. Less common sources of lead exposure include cosmetics, folk remedies, pottery glaze, old or imported cans with soldered seams, and contaminated vitamin supplements.

At-risk Populations

Disparities persist that disproportionately expose certain subgroups of children and pregnant women to lead exposure based on age, socioeconomic, occupational, developmental, and cultural risk factors. One study identified that children–especially those between the ages of 12 to 18 months living in dilapidated pre-World War II housing–experience blood lead levels 2 to 3 times higher on average than those living in rehabilitated housing.[33] Young children are more likely to have elevated blood lead levels because of differences in absorption from the gastrointestinal tract and age-appropriate exploration of their environments. They are also more susceptible to the toxic effects of lead compared with adults because of an incomplete blood-brain barrier that more readily permits the entry of lead into the developing nervous system.

National data suggest that these disparities exist by race/ethnicity and income. Children living at or below the poverty line who live in older housing are at greatest risk of lead exposure.[14] Children, especially those of low socioeconomic status, are at increased risk of nutritional deficiency, such as iron deficiency. Iron deficiency is associated with a 4- to 5-fold increase in baseline risk of lead exposure because of increased absorption of lead by the divalent metal transporter in the gastrointestinal tract.[34,35]

Other groups of children at increased risk of lead exposure include newly arrived foreign-born families and recent immigrants with young children. These children may have had lead exposure in their native country; for example, approximately 50% of the worldwide burden of lead poisoning occurs in Southeast Asia. It also is possible that their exposure occurred in unsuitable housing once they arrived in the United States.[36-40] A toolkit found on the CDC Web site discusses risks for these children and recommends the

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following[14]:

1. Blood lead level testing of all refugee children aged 6 months to 16 years upon entry to the United States.

2. Repeat blood lead level testing of all refugee children aged 6 months to 6 years, 3 to 6 months after these children are placed in permanent residences and older children, as warranted, regardless of initial test results.

Children with developmental disorders, such as autism spectrum disorders and other neurological syndromes, who have persistent pica behaviors and/or poor cognitive abilities, are at increased risk of lead exposure.[41-46] The increased risk in these children may persist into school age and adolescence, beyond when children are routinely tested for elevated BLLs. Children living in foster care also have an increased risk.[47] Scant guidance exists regarding testing children for elevated lead levels while they living are in foster care.[48] These children have increased susceptibility to adverse effects from lead exposure because they may have other neurodevelopmental comorbidities and often have lived in many different homes. Foster homes are less likely to be assessed for lead hazards before children are placed there. Pediatricians caring for these children therefore should take an environmental history with careful attention to lead exposure.

The National Institute for Occupational Safety and Health (NIOSH) has found that take-home exposure, including lead exposure, is a widespread problem.[49,50] Jobs with lead exposure include but are not limited to: painting, building renovation, demolition, shooting range work, metal scrap cutting and recycling, plumbing, and other industrial fields.[50] A case report demonstrated paraoccupational lead exposures from an e-scrap recycling facility where the father of 2 children worked.[51] Pediatricians should ask about parents' occupations and hobbies that might involve lead.

Table 32-1 includes common sources of lead contamination, risk factors, and prevention strategies. Additional novel sources of exposure include foreign-purchased cosmetics;[52,53] Southeast Asian spices[54,55] and herbs;[56] dietary supplements;[57] religious powders;[55] ayurvedic[58] or ethnic remedies;[52,55] occupational take-home exposures;[49,51,59] and vocational exposures such as marksmanship.[60,61]

Systems Affected

Lead exposure has been linked to many adverse health effects (See Table 32-2).[62-64] Lead acts as a neurotoxicant to the developing brain, resulting in irreversible damage even at relatively low levels of exposure. For lead exposure most commonly identified in the United States, subclinical effects on the central nervous system (CNS) are the most common effects. The best-studied effect is cognitive impairment, measured by IQ tests[3] and poor academic achievement,[10] and externalizing behaviors (problem behaviors directed toward the external environment), such as aggression and disobeying rules.[65,66] Each child with high lead levels in the United States costs approximately $5,600 in medical and special educational services.[14] Cognitive impairment attributable to lead contamination was estimated to

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cost $50.9 billion annually in lost economic productivity.[20]

A robust literature demonstrated a relationship between BLL at the time of testing and decreased scores on reading and arithmetic tests that is apparent even in children aged 6 to 16, including those whose BLLs by then are less than 5 mcg/dL.[67] Canfield et al[9] reported that among 172 children followed prospectively with measurements of BLLs, 101 had never had a BLL greater than 10 mcg/dL, and there was still a strong negative relationship between BLL and IQ when the children were aged 3 to 5. In most countries, including the United States, BLLs peak at approximately age 2 years because of normal hand-to-mouth exploratory behaviors in this age group, and then decrease without intervention. Although there is some relationship between peak BLL and IQ tested later, it is now clear that contemporaneous blood lead, even though it is lower, is more strongly associated with school-aged IQ.[3,68] Although lead exposure is a risk factor for developmental and behavioral problems, its impact has significant individual variability, which may be modulated by the psychosocial environment and educational experiences of the developing child.[24] Many factors affect cognition and behavior.

Other aspects of CNS function also may be affected by lead, but they are less well documented. Subclinical effects on hearing[69,70] and balance[71] may occur at commonly encountered BLLs. Some studies measured tooth or bone lead levels, which are thought to represent integrated, possibly lifetime, exposure. Teachers reported that students with elevated tooth lead levels were more inattentive, hyperactive, disorganized, and less able to follow directions.[4,72] Further follow-up in 1 of the studies showed higher rates of failure to graduate from high school, reading disabilities, and greater absenteeism in the final year of high school.[73] Elevated bone lead levels were associated with increased attention dysfunction, aggression, and delinquency.[74]

Although there are reasonable animal models of low-dose lead exposure and cognition and behavior,[75] the mechanisms by which lead affects CNS function are not entirely elucidated. Studies examining brain metabolism suggest that these effects may be caused by neuronal dysfunction and alteration in myelin architecture.[76] Lead alters very basic nervous system functions, such as calcium-modulated signaling, at very low concentrations in vitro.[77] The age of 2 years, when lead levels peak, is the same age at which a major reduction in dendrite connections occurs, among other events crucial to development. Thus, it is plausible that lead exposure at that time interferes with a critical development process in the CNS, but what that process is has not been identified. Brain imaging studies in adults with elevated BLLs in childhood have demonstrated region-specific reductions in gray matter volume,[78,79] alterations of white matter microstructure,[80] and a significant impact of lead on brain reorganization associated with language function.[81]

Lead also has important non-neurodevelopmental effects. The kidneys are primary target organs; children exposed to lead are at significantly greater risk of having hypertension as adults. Another renal effect of lead in children is impaired 1-*d*-hydroxylation of vitamin D, a necessary step toward activating this

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vitamin. A cross-sectional study suggested that environmental exposure to lead may delay growth and pubertal development in black and Mexican-American girls.[82] Episodes of severe lead poisoning can cause growth arrest of long bones, producing "lead lines." Given the advent of more sensitive screening metrics, this is no longer an effective means of diagnosing lead poisoning.

Lead interferes with heme synthesis beginning at BLLs of approximately 25 mcg/dL and after 50 to 70 days or more of exposure.[83] *D*-aminolevulinate dehydratase, an early-step enzyme, and ferrochelatase, which closes the heme ring, are inhibited. Ferrochelatase inhibition is the basis of a formerly used screening test for lead poisoning that measured zinc protoporphyrin and erythrocyte protoporphyrin, the immediate heme precursor. These markers are insensitive measures of lower BLLs and are not specific to elevated BLLs because they also are elevated in the presence of iron deficiency, a common comorbidity among children with elevated BLLs. These markers are used today as a window into the chronicity of ongoing exposure, although it lags behind the BLL.

Clinical Effects

Some children with BLLs greater than 40 mcg/dL may complain of headaches, abdominal pain, loss of appetite, or constipation, or they may be asymptomatic. Children displaying clumsiness, agitation, or decreased activity and somnolence are presenting with premonitory symptoms of CNS involvement that may rapidly proceed to vomiting, stupor, and convulsions.[84] Symptomatic lead toxicity should be treated as an emergency. Although lead can cause peripheral neuropathy and renal disease in adults with occupational exposures, these are rare in children.

Diagnostic Methods

A venous BLL measurement is the gold standard for the diagnosis of lead poisoning. A finger-stick or capillary sample can also be used if care is taken to avoid contamination. Elevated BLLs (5 mcg/dL or greater) found with a capillary test should be confirmed with a timely venous sample and followed by appropriate management of elevated levels based on current guidelines.[10,15,85] Once a child has had an elevated lead level, capillary measurements should no longer be obtained.

Blood Lead Testing

Until 1997, the AAP and CDC recommended that virtually all children have at least one measurement of blood lead beginning at age 12 months, with a retest at age 24 months, if possible. Because the prevalence of elevated BLLs has decreased substantially, in 1997 the CDC recommended that health departments determine a lead screening strategy for their jurisdictions on the basis of prevalence of housing risks, poverty rates, and children with elevated BLLs. Regardless of local recommendation, however, federal policy requires that all children enrolled in Medicaid receive screening blood lead tests at ages 12 and 24 months and that blood lead testing be performed for children aged 36 to 72 months who have not been tested previously.[10,11] This guidance also recommends that every child who has a developmental delay, behavioral disorder, or speech impairment, or who may have been exposed to lead, should receive a blood lead test.[5] Childhood lead testing is a national quality measure of clinical

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effectiveness. It is a recognized standard in the Health Effectiveness Data and Information Set (HEDIS), a widely used set of quality of care measures maintained by the National Committee for Quality Assurance for the accreditation of high-functioning managed care organizations and hospitals nationally.[86] Even though this recommendation exists, significant variability remains in lead testing, including for children most at risk who also may be disproportionately affected by gaps in the availability of systematic testing.

Assessments of risks for lead exposures and blood lead testing vary considerably by locale, from universal blood lead testing to targeted blood lead testing determined by risk assessment tools. Clinicians should consult city, county, or state health departments or their regional Pediatric Environmental Health Specialty Unit (www.pehsu.net) to determine the appropriate recommendations for their jurisdiction. This information also is available for most states on the CDC Web site (http://www.cdc.gov/nceh/lead/programs.htm). Children not enrolled in Medicaid and residing in states with no lead testing policy should have blood lead testing in accordance with Medicaid guidelines. The sensitivities of personal risk questionnaires and other substitutes for measuring BLLs vary according to the subgroup assessed and often are unacceptably low. These questionnaires may be more helpful in identifying and mitigating the source of exposure once an elevated blood lead level is identified.

Because of lead's effects on the developing fetus, the American College of Obstetrics and Gynecology and some states developed lead screening guidelines for pregnant women.[87] The CDC *Guidelines for the Identification and Management of Lead Exposure in Pregnant and Lactating Women* provides guidance about blood lead testing of pregnant women, medical and environmental management, and follow-up of mothers and infants when maternal lead levels are 10 mcg/dL or greater http://www.cdc.gov/nceh/lead/publications/leadandpregnancy2010.pdf.[88]

At-risk Subgroups

Children of all ages who are recent immigrants, refugees, or adoptees have an increased prevalence of elevated—sometimes very elevated—BLLs and should be tested at the earliest opportunity. Those aged 6 months to 6 years and older children, as warranted, should be retested 3 to 6 months after moving into permanent residences[36-40] This guidance refers to recent immigrant populations; there is limited guidance about the frequency of blood lead testing of other high-risk subgroups, such as children in foster care,[47] children with persistent pica behavior secondary to autism spectrum disorders or other neurodevelopmental disorders, or children with paraoccupational exposures.[5,42,46,89]

Diagnostic Testing

Some experienced clinicians measure the BLL in children with growth retardation, speech or language dysfunction, anemia, attention disorders, or other neurodevelopmental disorders, especially if the parents have a specific interest in blood lead level or in health effects from environmental chemicals. The persistent elevation of BLL into school age is unusual, however, even if peak BLL at age 2 years was high and the child's housing has not been abated. Thus, a relatively low BLL in a school-aged child does not rule out earlier lead exposure. If the question of current lead exposure arises, the only reliable way to make a

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diagnosis is with blood lead measurement. Abdominal radiography can be considered for children who have a history of pica for paint chips or excessive mouthing behaviors or if the BLL is 15 mcg/dL or greater (Table 32-3). Hair, urine, and teeth lead levels or long bone radiographs give no useful clinical information and should not be performed.[90]

No threshold or safe level has been identified for lead exposure. It therefore is critical to have a primordial prevention approach to eliminating lead exposure. Targeting elevated BLLs of 5mcg/dL or greater is efficient for case management purposes and to mitigate continued exposures. This approach is not adequate to prevent unnecessary exposure to 'legacy lead' in vulnerable populations.[15]

Treatment of Clinical Symptoms

A multipronged management approach should be provided to all children with a BLL of 5 mcg/dL or greater.[11,15,16] (see Table 32-3) Proper management includes finding and eliminating the source of the lead, instruction in proper hygienic measures (personal and household), optimizing the child's diet and nutritional status, and close follow-up (see Tables 32-3 and 32-4). Because most children with higher BLLs live in or visit regularly a home with deteriorating lead paint, successful therapy depends on eliminating the child's exposure. Any treatment regimen that does not control environmental exposure to lead is considered inadequate. Pediatricians should refer children with elevated BLLs to local public health officials for environmental assessment of the child's residence(s), or other experts in childhood lead exposure, such as the regional Pediatric Environmental Health Specialty Unit (PEHSU). Public health staff should conduct a thorough investigation of the child's environment and family lifestyle for sources of lead. Childhood lead exposure is a multifaceted, complex condition affecting not only the child's health and well-being, but also the family's housing security, economic status, job security, and stress level.

Deteriorated lead paint is the most common source of exposure, but other sources should be considered (see Table 32-1). BLLs should decrease as the child passes the age of 2 or so, and a stable or increasing BLL past that age is likely to be attributable to ongoing exposure. Among children who have spent prolonged periods in a leaded environment, BLLs will decrease more slowly after exposure ceases,[84] probably because bone stores are greater.

The CDC Advisory Committee on Childhood Lead Poisoning Prevention, the AAP, and the PEHSU network, among other sources, have published potential strategies for a multipronged approach to managing elevated blood lead levels in children (see Table 32-3).[10,15,85] No studies have identified effective strategies to reduce BLLs of less than 5 mcg/dL.[91] Treatment strategies in the primary care setting include family counseling and education about dietary sources of iron, calcium, vitamin C, vitamin D, and magnesium. Nutritional deficiencies can influence lead absorption and may have their own associations with neurodevelopmental sequelae independent of lead exposures. Specific attention should be paid to identifying and treating iron deficiency and ensuring adequate calcium and zinc intake.

Lead may cause neurotoxic injury known to impair later academic performance and affect life success. At

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a BLL of 5 mcg/dL or greater, children are 30% more likely to fail third grade reading and math tests and more likely to be non-proficient in math, science, and reading.[92,93] Thus, one of the recommendations for a young child with an elevated BLL is to refer the child to early intervention or a similar educational enrichment program. As of 2013, the majority of states specifically listed elevated blood lead levels or exposure to toxic substances as eligibility criteria for early intervention services.[94]

Chelation therapy for children with venous BLLs of 20 to 44 mcg/dL can be expected to lower BLLs but has not been shown to reverse or diminish cognitive impairment or other behavioral or neuropsychological effects of lead.[95] Chelation therapy is recommended if the venous BLL is greater than 45 mcg/dL and the exposure has been controlled. A pediatrician experienced in managing children with lead exposure should be consulted—these can be found through the PEHSUs,[85] Poison Control Centers, or through lead programs at state health departments (see Resources). Additional detailed medication treatment guidelines were published by the AAP.[96]

Prevention of Exposure

The reduction in childhood lead exposure in the United States over the past 4 decades is a testament to the success of a multipronged approach to widespread identification of children with lead exposures, enforcement of the housing code, facilitated residential inspections, careful mitigation and abatement efforts, and educational outreach to the lay public and health care providers by nongovernmental and governmental agencies. There remains the need to address the widespread issue of 'legacy lead': the contamination of housing and continued exposure of children in the United States. Because no safe blood lead level has been identified, in 2012 the CDC and the Advisory Committee on Childhood Lead Poisoning advised that the best way to end the problem is to control, prevent, or eliminate exposures.[10,11]

Primordial prevention efforts must focus on removing lead from the environment before a child has a chance to become exposed. Primordial prevention efforts contrast to secondary prevention, the identification and management of individual cases after exposure already has caused elevated blood lead with potentially deleterious neurodevelopmental effects.[12] It is of paramount importance to implement primordial prevention techniques through ongoing identification of lead-contaminated housing and definitive abatement. It is estimated that each $1 invested in housing abatement of lead hazards results in a return of $17 to $221.[97] The most persistent source of lead in a child's environment–contaminated housing–has been the primary focus of prevention efforts. Individuals who conduct residential abatement (the removal and replacement of lead pipes, enclosure or encapsulation of lead-based paint or lead-contaminated dust or soil) must receive training to minimize further exposure to lead.[22,99] Paint stripping, covering painted areas by sealing or encasement, using high-efficiency particulate air (HEPA) vacuuming and HEPA air filters, and soil and dust removal are all effective methods for lead abatement. Removing all lead from homes and soil in the United States has not, however, been considered as a feasible prevention strategy because of the high cost of abatement. The US EPA and other public health agencies have focused on both primordial lead poisoning prevention outreach.

The costs of remediating residential housing and plumbing are substantial and often pose formidable

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barriers to compliance by landlords, homeowners, and governmental agencies. Prevention approaches that focus on primary and secondary prevention efforts among high-risk communities are increasingly being used. An approach that incorporates neighborhood-level lead exposure data and census attributes (eg, percent of the population living below the poverty threshold; percent of old housing stock; percent of young children) has the benefit of concentrating the impact of the prevention effort in specific high-risk areas.[15,100-103]

Pediatric health care providers have important roles to play in case finding and managing childhood lead exposure. The testing and subsequent retesting of children with an elevated BLL is paramount in case finding and reducing the chronicity of lead exposure.

Frequently Asked Questions

Q *My child was tested and has elevated lead in his blood. How can I eliminate exposure?*

A In children with elevated blood lead levels, interventions have to be not only effective but also very safe. I am going ask you about potential sources of lead exposure in your home, will test your child for anemia and iron deficiency, and provide iron supplements if needed. We will talk about making sure he has the proper nutrition. I will refer you to our local health department to help identify the lead source and make sure that the source in your home is safely removed. Unsafe renovation practices can further expose children to lead hazards. Having a child with a BLL of 5 or 10 mcg/dL may be a source of concern, but no specific drug therapies have been tested and shown to be safe and effective at these low blood lead levels and are not recommended.

Q *What about testing for lead in water?*

A If you are using tap water to reconstitute infant formula or juice or there has been local concern, you may want to have your water tested. To help determine whether your water might contain lead, call the US Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791 or your local health department to find out about testing your water. Well water should be tested for lead when the well is new and tested again when a pregnant woman, infant, or child younger than age 18 years moves into the home. For a discussion of well water for infants, see the AAP policy statement on drinking water from private wells.[27] Most water filters, if used correctly, remove lead.

Q *We have imported cookware and use imported spices, cosmetics, and ayurvedic medicines. Is it safe to use them?*

A Some imported cookware contains lead. As the dishes wear or become chipped or cracked, lead can leach from the dishes into foods. The US Food and Drug Administration began regulating lead in cookware made in the United States in the 1980s and further strengthened regulations in the 1990s. Dishes made in the United States before these regulations took effect may contain lead. Studies have demonstrated that some imported spices such as turmeric, cosmetics such as kohl and sindoor, and

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ayurvedic medicines may be contaminated with lead. Because 80% of the spices used in the United States are imported, it is difficult to monitor all spices for contaminants. Although the U.S. Food and Drug Administration is working with other countries to improve the quality of imported spices, cosmetics, and supplements, it always is wise to consider that these products may be sources of lead. When possible, consider using products made in the United States.[52-55]

Q *Lead was found in my child's school drinking water fountain. Should I have tested for her blood lead level?*

A Under the Lead and Copper Rule, there are no special provisions that schools and public early education and childcare facilities that meet the definition of a public water system are required to be included as sampling locations. If an elevated water lead level was reported at your child's school, local resources such as the school, health department, or Pediatric Environmental Health Specialty Unit can be contacted to determine if blood lead level testing is indicated. It is important to take actions to minimize all sources of lead exposure. The primary source of lead exposure for most US children is from contaminated dust and soil. Schools should work with local, state, and regional resources to establish programs to test for lead in drinking water and other media (eg, lead-based paint and soil) and to develop a coordinated health messaging response for families and their communities. The US EPA has developed a 3Ts (Training, Testing, and Telling) toolkit to assist school and childcare facilities to address lead in drinking water in their local communities (see Resources).

Q *I saw my toddler eating a piece of lead-containing paint. What should I do?*

A Bring your child to the office so we can test him for lead. He may have ingested similar substances even before you noticed him eating the paint chip. Levels of lead in the blood rise rapidly (within hours to days) and can continue to rise as the paint chip moves through his digestive system. Once the object has been excreted, the blood level will fall to a new level over the next month. If his lead level is 15 mcg/dL we may want to get an abdominal radiograph to see if there is lead there. If that is the case, I will consult with experts in lead exposure to see about next steps. I also will check your child for iron deficiency and treat him with iron if needed.

Your local or state health department may become involved to provide education or visit your home to determine the source of lead exposure. It is important to ask about reliable resources in the community to help to resolve the lead problem, if needed; health departments often are not able to provide this service themselves.

Q *Is there still lead in canned food?*

A Cans with soldered seams can add lead to foods. In the United States, soldered cans have been replaced by seamless aluminum containers, but some imported canned products still have lead-soldered seams.

Q *What are resources for lead?*

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A There are several resources for lead exposure and prevention. Please contact your regional Pediatric Environmental Health Specialty Unit (PEHSU) Network, Poison Control Center, or local public health department's childhood lead poisoning prevention program for further information.

Q How can I tell if a toy has lead paint or is made of lead?

A Toys are not all routinely tested for lead. Companies that do not uniformly test the toys before selling them import many toys from countries with poorly enforced safety rules. The AAP advises parents to monitor the Consumer Product Safety Commission Web site for notices of recalls and to avoid non-brand toys and toys from discount shops and private vendors. Old and used toys should be examined for damage and clues to the origin of the toy. If the toy is damaged or worn or from a country with a history of poor monitoring of manufacturing practices, the safest action is to not let your child use it. Be particularly attentive to costume jewelry and other small metal pieces that can be swallowed.

Resources

Centers for Disease Control and Prevention Childhood Lead Poisoning Prevention Program
Tel: 1-800-232-4636
Web site: www.cdc.gov/nceh/lead

EPA National Lead Information Center
Tel: 1-800-424-LEAD
Web site: https://www.epa.gov/lead/forms/lead-hotline-national-lead-information-center

EPA Office of Children's Health Protection
Tel: 202-564-2188
Web site: https://www.epa.gov/children

EPA Safe Drinking Water Hotline
Tel: 1-800-426-4791

EPA's 3Ts (Training, Testing, and Telling Approach) for Reducing Lead in Drinking Water in Schools
Web site: www.epa.gov/dwreginfo/lead-drinking-water-schools-and-child-care-facilities

Office of Healthy Homes and Lead Hazard Control, Department of Housing and Urban Development
Web site: www.hud.gov/offices/lead

Pediatric Environmental Health Specialty Unit (PEHSU) Network
Tel: 888-347-2632
Web site: www.pehsu.net

Poison Control Center (PCC)
Tel: 1-800-222-1222
Web site: www.aapcc.org/

President's Task Force on Environmental Health Risks and Safety Risks to Children, Key Federal Programs to Reduce Childhood Lead
Web site: https://ptfceh.niehs.nih.gov/

U.S. Environmental Protection Agency (EPA) Lead Paint Program
Tel: 1-800-424-5323

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Web site: www.epa.gov/lead

Figure 32-1. Contribution of Lead Exposure to Children's Blood Lead Concentrations. Reproduced from AAP Council of Environmental Health[15], adapted from Lanphear et al[104] and Spanier et al.[105]

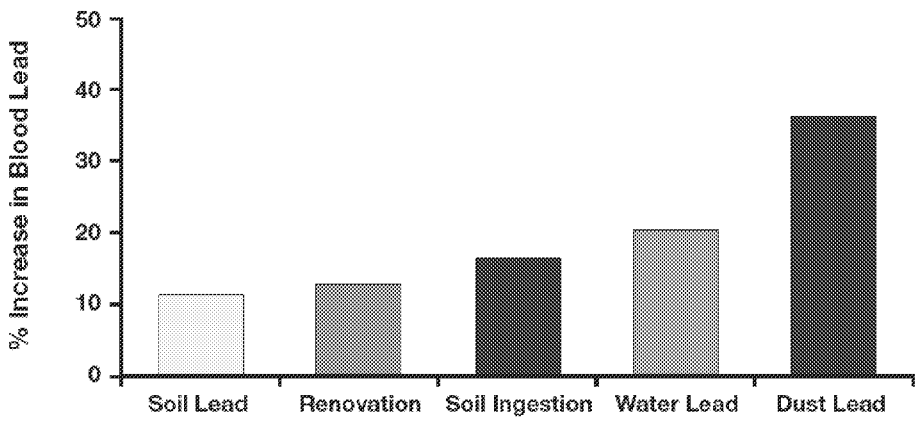
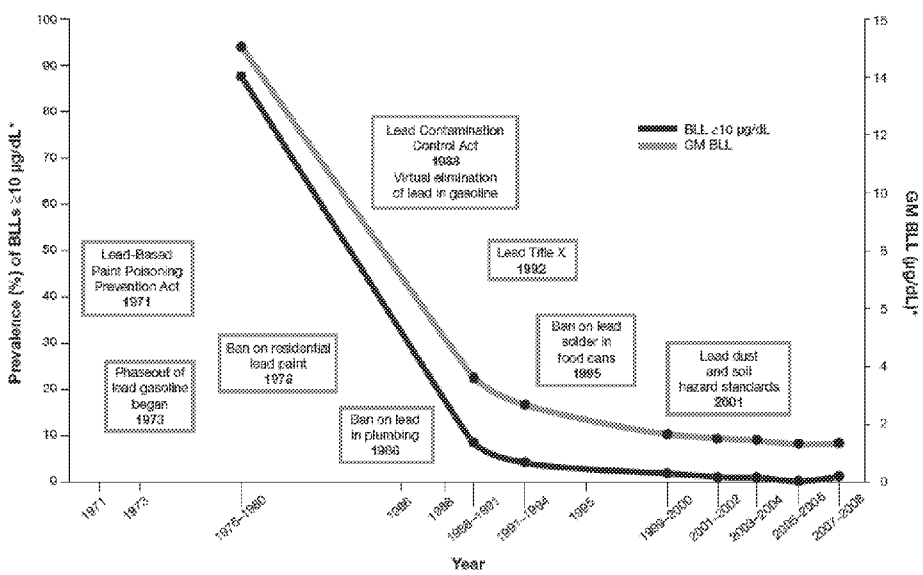


Figure 32-2. Timeline of Lead Poisoning Prevention Policies and BLLs in Children Aged 1-5 Years, by Year—National Health and Nutrition Examination Survey, United States, 1971-2008. Reproduced from AAP Council of Environmental Health[15]



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474 Abbreviations: BLL = blood lead level; GM BLL = geometric mean blood lead level

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Table 32-1. Risk Factors for Lead Exposure and Prevention Strategies	
Risk Factor	**Prevention Strategy**
Environmental	
Paint	Identify, evaluate, and remediate
Dust	Control sources
Soil	Restrict play in area, plant groundcover
Drinking water	Check with local authorities about water testing; morning flush of water from faucet; use cold water for cooking and drinking, especially if tap water used for preparing formula; implement charcoal filter to reduce contamination Private well water should be tested for lead when the well is new and tested again when a pregnant woman, infant, or child younger than age 18 moves into the home and annually thereafter
Folk remedies (examples include Greta and Azarcon, Hispanic traditional medicines; Ghasard, an Indian folk medicine; and Ba-baw-saw, a Chinese herbal remedy)	Avoid use
Spices (examples include Southeast Asian spices such as tumeric) and candy from Mexico (ingredient tamarind may contain lead)	Avoid use in young infants, children, and women of reproductive age
Cosmetics and religious powders (examples include Swad brand Sindoor, a cosmetic product used in Hinduism; Tiro, an eye cosmetic from Nigeria; Kohl or surma, an eye cosmetic from Southeast Asia)	Avoid use
Old ceramic or pewter cookware, old urns/kettles, decorative pottery from Mexico and ceramics from China, or other imported cookware	Avoid use
Some imported toys, crayons	Avoid use
Parental occupations (examples include construction and demolition work, lead-paint abatement, pipe fitting and plumbing, battery manufacturing, mining, ship building or other marina work, e-scrap recycling, among others)	Shower and remove work clothing and shoes before leaving work See Occupational Safety and Health Guidance in Resources
Hobbies (examples include hobbies involving soldering such as stained glass, jewelry making, pottery glazing, and working with bullets, such as	Proper use, storage, and ventilation

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Table 32-1. Risk Factors for Lead Exposure and Prevention Strategies	
Risk Factor	**Prevention Strategy**
marksmanship at firing ranges, finishing sinkers and certain weights)	
Home renovation	Proper containment, ventilation; pregnant women and young children should vacate premises while work is done and not re-enter until premises certified as lead-safe. Certified lead abatement?
Buying or renting a new home	Inquire about lead hazards, look for deteriorated paint before occupancy, hire certified lead risk assessor to evaluate hazard and recommend control options; consult local housing databases of lead hazards as available
Host	
Hand-to-mouth activity (or pica)	Control sources; frequent hand washing
Inadequate nutrition	Screening for iron and vitamin D deficiency. Optimization of iron, calcium, and Vitamin D
Developmental disabilities	Enrichment programs as available (eg, referral to early intervention (<3 years old) and to public school department for individualized education program (≥3 years old)

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Table 32-2. Summary of Children's Health Effects by Blood Lead Level	
Blood Lead Level	**Sufficient Evidence or Causal Determination of Children's Health Effects**
Below 5 mcg/dL	Nervous System Effects: • Cognitive function: Decreases in IQ, academic achievement, specific cognitive measures • Externalizing behaviors: Increased incidence of attention-related and problem behaviors
5-10 mcg/dL	Effects listed above plus Nervous System Effects: • Auditory Function: decreased hearing Reproductive and Developmental Effects: • Reduced postnatal growth • Delayed puberty for girls and boys
10-40 mcg/dL	Effects listed above plus Nervous System Effects: • Nerve function: slower nerve conduction Blood Effects: • Decreased hemoglobin, anemia
40–80 mcg/dL	Effects listed above plus Gastrointestinal Effects: • Abdominal pain, constipation, colic, anorexia, and vomiting
Above 80 mcg/dL	Effects listed above plus Nervous System Effects:

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Table 32-2. Summary of Children's Health Effects by Blood Lead Level	
Blood Lead Level	**Sufficient Evidence or Causal Determination of Children's Health Effects**
	• Severe neural effects: convulsions, coma, loss of voluntary muscle control, and death

Adapted from President's Task Force on Environmental Health Risks and Safety Risks to Children, Key Federal Programs to Reduce Childhood Lead Exposures and Eliminate Associated Health Impacts Report.[12] based on evidence from [62-64].

Table 32-3. Recommended Follow-up Actions, According to Blood Lead Level (BLL)[a]	
BLL (mcg/dL)	**Actions**
<5 mcg/dL	1. Review lab results with family. For reference, the geometric mean blood lead level for children aged 1 to 5 in the United States is less than 2 mcg/dL. 2. Repeat the blood lead level in 6 to 12 months if the child is at high risk or risk changes during the timeframe. Ensure lead testing is done at age 1 and age 2 and is based on local and state guidelines. 3. For children tested at age younger than 12 months, consider retesting in 3 to 6 months because lead exposure may increase as mobility increases. 4. Perform routine health maintenance including assessment of nutrition, physical and mental development, as well as iron deficiency risk factors as per the recommendations in Bright Futures (American Academy of Pediatrics). 5. Provide anticipatory guidance on common sources of environmental lead exposure: paint in homes built prior to 1978, soil near roadways or other sources of lead, take-home exposures related to adult occupations, imported spices, cosmetics, jewelry, folk remedies, and cookware.
5-14 mcg/dL	1. Perform steps as described above for levels less than 5 mcg/dL. 2. Re-test venous blood lead level within 1 to 3 months to ensure the lead level is not rising. If it is stable or decreasing, retest the blood lead level in 3 months. Refer patient to local health authorities if such resources are available. Most states require elevated blood lead levels be reported to the state health department. Contact the CDC at 800-CDC-INFO (800-232-4636) or the National Lead Information Center at 800-424-LEAD (5323) for resources regarding lead poisoning prevention and local childhood lead poisoning prevention programs. 3. Take a careful environmental history to identify potential sources of exposures (see #5 above) and provide preliminary advice about reducing/eliminating exposures (eg, wash children's hands/toys frequently, frequent damp mopping of floors, windows, and window sills, leave shoes at threshold, place duct tape or contact paper over chipping/peeling paint, cessation of renovations). Consider other children who may be exposed. 4. Provide nutritional counseling related to calcium and iron. In addition, recommend having a fruit at every meal because iron absorption quadruples when taken with Vitamin C-containing foods. Encourage the consumption of iron-enriched foods (eg, cereals, meats). Some children may be eligible for Special Supplemental Nutrition Program for Women, Infants and Child (WIC) or other nutritional resources. 5. Ensure iron sufficiency with adequate laboratory testing (CBC, Ferritin, CRP) and treatment per AAP guidelines. Consider starting a multivitamin with iron or iron supplementation as indicated. 6. Perform structured developmental screening evaluations at child health maintenance visits per recommendations in Bright Futures, and referral to therapeutic programs (eg, Early Intervention Program, Individualized Education Programs) because lead's effect on development may manifest over years.
15-44 mcg/dL	1. Perform steps as described above for levels 5-14 mcg/dL. 2. Determine if there is any evidence of symptomatology. 3. Confirm blood lead level with venous sample within 1 to 4 weeks. Higher levels require more rapid confirmation.

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Table 32-3. Recommended Follow-up Actions, According to Blood Lead Level (BLL)[a]	
BLL (mcg/dL)	**Actions**
	4. Home investigation to assess for the lead source, if available. If not available, consult with regional PESHU regarding other options. 5. Additional, specific evaluation of the child, such as abdominal radiograph should be considered based on the environmental investigation and history (eg, pica for paint chips, mouthing behaviors). Gut decontamination may be considered if radio-opaque foreign bodies consistent with ingested lead are visualized on radiograph. Any treatment for blood lead levels in this range should be done in consultation with an expert. 6. Contact local PEHSU or PCC for guidance
>44 mcg/dL	1. Follow guidance for BLL 15-44 mcg/dL as listed above. 2. Confirm the blood lead level with repeat venous lead level within 48 hours. 3. Obtain a complete blood count, electrolytes, BUN, creatinine, ALT, and AST in anticipation of chelation therapy. 4. Abdominal radiograph should be done to look for radio-opaque foreign bodies suggestive of recent ingestion because this finding may change management. 5. Emergently admit all symptomatic children to a hospital; if there is evidence of significant CNS pathology, consider PICU admission. If asymptomatic, consider hospitalization and/or chelation therapy (managed with the assistance of an experienced provider) based on status of the home with respect to lead hazards, ability to isolate the lead source, family social situation, and chronicity of the exposure are factors that may influence management. 6. Contact your regional PEHSU or PCC for assistance.

[a] Adapted from Pediatric Environmental Health Specialty Unit. Medical Management of Childhood Lead Exposure and Poisoning. http://www.pehsu.net/_Library/facts/medical-mgmnt-childhood-lead-exposure-June-2013.pdf. Accessed April 9, 2018.

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Table 32-4. Clinical Evaluation[a]
Medical History Ask about • Symptoms • Developmental history • Mouthing activities • Pica • Previous BLL tests • Family/maternal history of exposures to lead
Environmental History Paint and soil exposure • What is the age and general condition of the residence? • Is there evidence of chewed or peeling paint on woodwork, furniture, or toys? How long has the family lived at that residence? • Have there been recent renovations or repairs in the house? • Are there other sites where the child spends significant amounts of time? • What is the character of indoor play areas?

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Table 32-4. Clinical Evaluation[a]
• Do outdoor play areas contain bare soil that may be contaminated? • How does the family attempt to control dust/dirt? Water exposure • Does the child's home have leaded pipes or fixtures? • Has the water been tested at that residence? • Has the water been tested at other places where the child spends significant amounts of time?
Relevant Behavioral Characteristics of the Child • To what degree does the child exhibit hand-to-mouth activity? • Does the child exhibit pica? • Are the child's hands washed before meals and snacks?
Exposures to and Behaviors of Household Members • What are the occupations of adult household members? • What are the hobbies of household members? (Fishing, working with ceramics or stained glass, and hunting are examples of hobbies that involve risk for lead exposure) • Are painted materials or unusual materials burned in household fireplaces?
Miscellaneous Questions • Does the home contain vinyl miniblinds made overseas and purchased before 1997? • Does the child receive or have access to imported food, cosmetics, or folk remedies? • Is food prepared or stored in imported pottery or metal vessels?
Nutritional History • Take a dietary history • Evaluate the child's iron status using appropriate laboratory tests • Ask about history of food stamps or Special Supplemental Nutrition Program for Women, Infants, and Children program (WIC) participation
Physical Examination • Pay particular attention to the neurologic examination and to the child's psychosocial and language development • Pay particular attention to stigmata of anemia, for example conjunctival pallor and tachycardia

[a]Adapted from Centers for Disease Control and Prevention.[11]

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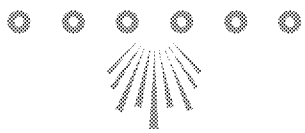
Chapter 32

Lead



KEY POINTS

- There is no safe level of lead.
- Disparities persist that disproportionately expose certain populations of children and pregnant women to lead exposure.
- The sources for most children with elevated blood lead levels today are lead-laden dust and paint chips from deteriorating lead paint on interior surfaces.

INTRODUCTION

Childhood lead toxicity has been recognized for more than 100 years. As recently as the 1940s, many people believed that children with lead poisoning who did not die during an acute toxic episode had no residual effects. After it was recognized that learning and behavior disorders occurred in children who recovered from acute toxicity, many believed that only children with frank symptoms suffered neurobehavioral deficits. Starting in the 1970s and continuing today, studies worldwide consistently demonstrated that asymptomatic children with increasing levels of lead had lower IQ scores,[1,2,3] more language difficulties,[4] attention problems,[5] and behavior disorders.[6,7] With better epidemiological studies, the definition of a harmful level of lead has changed markedly. Abundant scientific evidence now shows that blood lead levels (BLLs) below 10 mcg/dL are associated with adverse cognitive, behavioral, and other effects in infants and children.[3,8,9] Based on this evidence and other important longitudinal prospective studies, in 2012 the Advisory Council on Childhood Lead Poisoning Prevention

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convened by the Centers for Disease Control & Prevention (CDC) cited new scientific data that documents adverse health effects of lead on infants and children at venous blood concentrations below 10 mcg/dL.[10] In response to this report, the CDC created a reference value of 5 mcg/dL, based on the 97.5th percentile of the BLL distribution among children age 1 to 5 years. The CDC used data generated by the National Health and Nutrition Examination Survey (NHANES) rather than a health-based action level.[11] The report emphasized the importance of and focus on primary prevention efforts given the lack of an identified threshold without deleterious neurodevelopmental effects and evidence that these effects appear to be irreversible.

It is estimated that 500,000 children (2.5%) younger than 6 years in the United States have BLLs at or above the current CDC reference level.[12,13] Children living in 3.6 million US households are currently exposed to lead hazards.[12] The continued exposure of thousands of children to lead-laden dust and paint chips in deteriorating housing mars what would otherwise be a public health triumph. Although lead levels have decreased in all children tested, environmental health disparities persist that disproportionately affect low-income and minority families and communities.[14] (See At-Risk Populations and Chapter 55, Environmental Equity).

The CDC emphasizes that the best way to end childhood lead poisoning is to prevent, control, and eliminate lead exposures. The CDC[11] and the American Academy of Pediatrics (AAP)[15] currently use the reference value of 5 mcg/dL as the level that should prompt public health action. The focus has shifted from the care of symptomatic children toward a primary prevention approach targeting communities most at risk of lead poisoning.[11,16] Reducing or eliminating the myriad sources of lead exposures before exposures occur is the most reliable and cost-effective measure to protect children from lead toxicity.[15,17] Because of universal and targeted blood testing of children for lead exposure, pediatricians commonly find themselves participating in or even directing these activities.[15]

ROUTES AND SOURCES OF EXPOSURE

Children may be exposed to lead through the unintentional ingestion of lead-containing particles, such as dust from paint, soil, or ongoing renovations; or from contaminated water (See Figure 32-1). Lead can be absorbed from the pulmonary tract if inhaled as fumes or respirable particles. Lead is transmitted in human milk.

Lead (Pb) is a metallic element. In the United States, there have been 2 major sources of industrially derived lead for children: airborne lead, mostly from the combustion of gasoline containing tetraethyl lead; and lead-laden dust and debris, mostly from deteriorating lead-based paint.[11] The largest declines in blood lead levels occurred from the 1970s to the 1990s, following the elimination of lead in motor vehicle gasoline, the ban on lead paint for residential use, removal of lead from solder in food cans, bans on the use of lead pipes and plumbing fixtures, and other limitations on the uses of lead.[12] (See Figure 32-2)

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Federal legislation in the 1970s resulted in removal of lead from motor gasoline and reduced smokestack emissions from smelters and other sources, causing BLLs in children to decrease; lead in aviation gasoline, however, still persists today.[18] The use of heavily leaded paint on interior surfaces ceased in the United States by 1978[15] but there still are significant lead paint hazards in 3.6 million

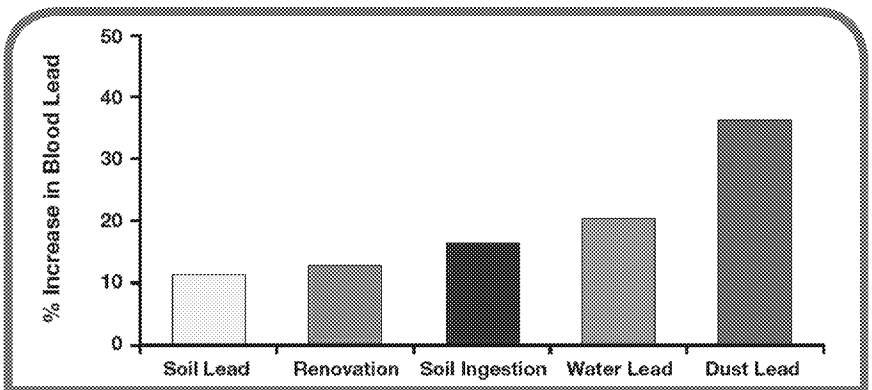

Figure 32-1. Contribution of Lead Exposure to Children's Blood Lead Concentrations. Reproduced from AAP Council of Environmental Health[1], adapted from Lanphear et al[16] and Spanier et al.[15]

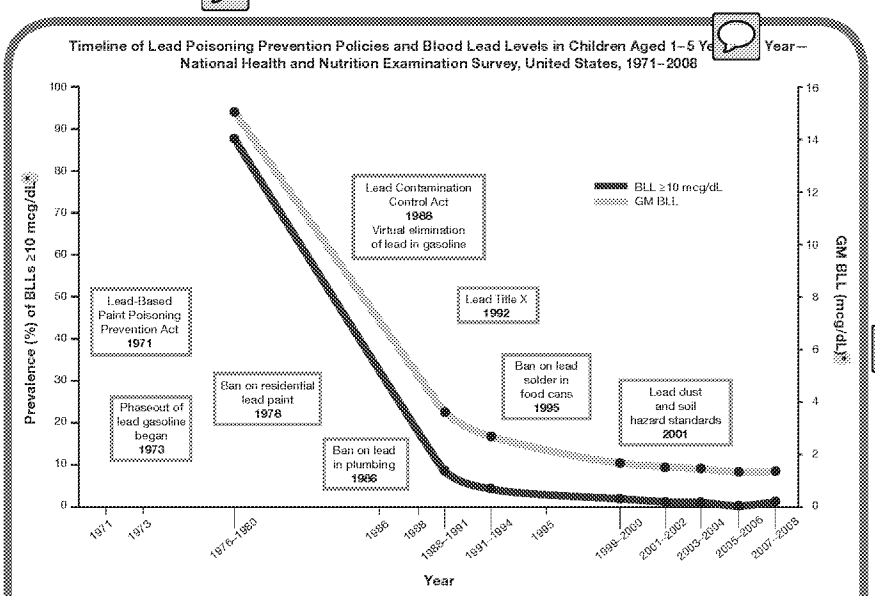

Figure 32-2. Timeline of Lead Poisoning Prevention Policies and BLLs in Children Aged 1–5 Years, by Year—National Health and Nutrition Examination Survey, United States, 1971-2008. Reproduced from AAP Council of Environmental Health[1]

Abbreviations: BLL = blood lead level; GM BLL = geometric mean blood lead level

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homes inhabited by at least 1 child younger than age 6. Exposure is likely in situations where lead-based paint exists in deteriorated conditions.[19,20] Soil contaminated from 'legacy' sources of lead (leaded gasoline and lead-based paint) can recontaminate remediated houses.[21,22] Residual lead in soil in areas heavily affected by airborne lead, such as around smelters, continues to be a problem even decades after the worst sites are closed.[23]

The source for most children with elevated BLLs today is lead-laden dust and paint chips from deteriorating lead paint on interior surfaces. Young children living in homes with deteriorating lead paint can achieve BLLs of at least 20 mcg/dL without frank pica (ingestion of nonfood items).[24] This exposure commonly arises from normal, developmentally appropriate hand-to-mouth behavior in an environment that is contaminated with lead dust. Children with lower ~~blood lead levels~~ (less than 10 mcg/dL) may have continuous exposures from multiple sources including food, water, soil, and dust.

Lead plumbing (Latin "plumbus" means lead) has contaminated drinking water for centuries, especially if the water has high or low acidity or low mineral content. This was unfortunately exemplified most recently through contaminated drinking water affecting Flint, Michigan. This contamination was the result of several preceding events. The community's water source was changed, resulting in the need to augment disinfection processes. The disinfection processes were done without appropriate corrosion control procedures, leading to an increase in leaching of lead from corroding leaded and galvanized pipes, solder, and plumbing fixtures. Studies of this community identified a statistically significant increased odds of having an elevated ~~blood lead level~~ in the period following the switch in drinking water source.[25,26] The majority of elevated BLLs tested were in the 5 to 9 mcg/dL range, although few children younger than age 1 were tested.[25]

The Environmental Protection Agency (EPA)'s Lead and Copper Rule is a treatment technique rule to help minimize water contamination in public water systems. This rule employs an action level as a screening tool to determine when certain treatment technique actions are needed. The rule sets a target concentration ("action level") of 0.015 mg/L (15 parts per billion [ppb]) and recommends remediation measures such as corrosion control treatment, source water monitoring, public education, and potentially lead service line replacement if the action level is exceeded in more than 10% of tap water sampled.[12] Notably, the federal government recommends but does not require testing of water in schools or childcare facilities that meet the definition of a public water system. No testing is required for private wells, although private wells account for 10% to15% of the population's water sources.[27] As suggested by a 2016 National Resources Defense Council report, water violations persist throughout the United States and have for a number of years.[28] In 2015, more than 5,000 community water systems, serving 18 million people, violated the

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Lead and Copper Rule.[28] Of these, 1,110 community water systems, serving 3.9 million people, had water lead levels in excess of 15 ppb in at least 10% of homes tested.[28] Infants who consume reconstituted formula, people living in neighborhoods with high levels of socioeconomic disadvantage, and minority populations are at increased risk of lead poisoning from contaminated drinking water.[26] As a result of emerging concerns over lead and water contamination, the US EPA has been working with states, public water systems, and water sector stakeholders to revise existing rules and regulations, identify challenges, and promote best practices.[12] There is no safe level of lead in water; despite this fact, no health-based 'household action level' currently exists.[12] Various regional and state-level resources exist for testing individual drinking water at the tap and mitigating lead contamination in drinking water. Mitigation measures include installing charcoal-based water filters designed to remove lead, using cold water for cooking and formula preparation, allowing water to flush prior to use, and supplying resources to assist school and childcare facilities to minimize water contamination from lead. (See Table 32-1 and Resources.)

Children also may be exposed to lead fumes or respirable dust resulting from unsafe remediation practices such as sanding or heating old paint; burning or melting automobile batteries, or melting lead for use in a hobby or craft. Childhood lead poisoning from toy jewelry has occurred including a fatality in a child who ingested a lead charm.[29,30,31] Lead has been found in older toys made in the United States, imported toys painted with lead-based paint, and plastic toys and vinyl that used lead as a softener.[31,32] Since 2008, the US Consumer Product Safety Commission (CPSC) has set requirements for third-party testing and certification by manufacturers and importers to help reduce the number of non-complying products entering the market.[12] Ongoing CPSC surveillance in partnership with other federal and state agencies demonstrated a reduction in the number of required recalls of these contaminated toys. These agencies collaborate with importers and manufacturers to prevent further importation of products containing unsafe amounts of lead.[12] Although individual children could chew on or ingest these products resulting in lead absorption, the extent to which toys and plastics contribute to lead exposure in most children is not clear. Less common sources of lead exposure include cosmetics, folk remedies, pottery glaze, old or imported cans with soldered seams, and contaminated vitamin supplements.

AT-RISK POPULATIONS

Disparities persist that disproportionately expose certain subgroups of children and pregnant women to lead exposure based on age, socioeconomic, occupational, developmental, and cultural risk factors. One study identified

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Table 32-1. Risk Factors for Lead Exposure and Prevention Strategies

RISK FACTOR	PREVENTION STRATEGY
ENVIRONMENTAL	
Paint	Identify, evaluate, and remediate
Dust	Control sources
Soil	Restrict play in area, plant groundcover
Drinking water	Check with local authorities about water testing; morning flush of water from faucet; use cold water for cooking and drinking, especially if tap water used for preparing formula; implement charcoal filter to reduce contamination Private well water should be tested for lead when the well is new and tested again when a pregnant woman, infant, or child younger than age 18 moves into the home and annually thereafter
Folk remedies (examples include Greta and Azarcon, Hispanic traditional medicines; Ghasard, an Indian folk medicine; and Ba-baw-saw, a Chinese herbal remedy)	Avoid use
Spices (examples include Southeast Asian spices such as tumeric) and candy from Mexico (ingredient tamarind may contain lead)	Avoid use in young infants, children, and women of reproductive age
Cosmetics and religious powders (examples include Swad brand Sindoor, a cosmetic product used in Hinduism; Tiro, an eye cosmetic from Nigeria; Kohl or surma, an eye cosmetic from Southeast Asia)	Avoid use
Old ceramic or pewter cookware, old urns/kettles, decorative pottery from Mexico and ceramics from China, or other imported cookware	Avoid use
Some imported toys, crayons	Avoid use

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Table 32-1. Risk Factors for Lead Exposure and Prevention Strategies (*continued*)

RISK FACTOR	PREVENTION STRATEGY
ENVIRONMENTAL	
Parental occupations (examples include construction and demolition work, lead-paint abatement, pipe fitting and plumbing, battery manufacturing, mining, ship building or other marina work, e-scrap recycling, among others)	Shower and remove work clothing and shoes before leaving work See Occupational Safety and Health Guidance in Resources
Hobbies (examples include hobbies involving soldering such as stained glass, jewelry making, pottery glazing, and working with bullets, such as marksmanship at firing ranges, finishing sinkers and certain weights)	Proper use, storage, and ventilation
Home renovation	Proper containment, ventilation; pregnant women and young children should vacate premises while work is done and not re-enter until premises certified as lead-safe. Certified lead abatement?
Buying or renting a new home	Inquire about lead hazards, look for deteriorated paint before occupancy, hire certified lead risk assessor to evaluate hazard and recommend control options; consult local housing databases of lead hazards as available
HOST	
Hand-to-mouth activity (or pica)	Control sources; frequent hand washing
Inadequate nutrition	Screening for iron and vitamin D deficiency. Optimization of iron, calcium, and Vitamin D
Developmental disabilities	Enrichment programs as available (eg, referral to early intervention (<3 years old) and to public school departmer individualized education program (<3 v old)

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that children—especially those between the ages of 12 to 18 months living in dilapidated pre-World War II housing—experience ~~blood lead levels~~ 2 to 3 times higher on average than those living in rehabilitated housing.[33] Young children are more likely to have elevated ~~blood lead levels~~ because of differences in absorption from the gastrointestinal tract and age-appropriate exploration of their environments. They are also more susceptible to the toxic effects of lead compared with adults because of an incomplete blood-brain barrier that more readily permits the entry of lead into the developing nervous system.

National data suggest that these disparities exist by race/ethnicity and income. Children living at or below the poverty line who live in older housing are at greatest risk of lead exposure.[14] Children, especially those of low socio-economic status, are at increased risk of nutritional deficiency, such as iron deficiency. Iron deficiency is associated with a 4- to 5-fold increase in baseline risk of lead exposure because of increased absorption of lead by the divalent metal transporter in the gastrointestinal tract.[34,35]

Other groups of children at increased risk of lead exposure include newly arrived foreign-born families and recent immigrants with young children. These children may have had lead exposure in their native country; for example, approximately 50% of the worldwide burden of lead poisoning occurs in Southeast Asia. It also is possible that their exposure occurred in unsuitable housing once they arrived in the United States.[36–40] A toolkit found on the CDC Web site discusses risks for these children and recommends the following[14]:

1. Blood lead level testing of all refugee children aged 6 months to 16 years upon entry to the United States.
2. Repeat blood lead level testing of all refugee children aged 6 months to 6 years, 3 to 6 months after these children are placed in permanent residences and older children, as warranted, regardless of initial test results.

Children with developmental disorders, such as autism spectrum disorders and other neurological syndromes, who have persistent pica behaviors and/or poor cognitive abilities, are at increased risk of lead exposure.[41–46] The increased risk in these children may persist into school age and adolescence, beyond when children are routinely tested for elevated BLLs. Children living in foster care also have an increased risk.[47] Scant guidance exists regarding testing children for elevated lead levels while they living are in foster care.[48] These children have increased susceptibility to adverse effects from lead exposure because they may have other neurodevelopmental comorbidities and often have lived in many different homes. Foster homes are less likely to be assessed for lead hazards before children are placed there. Pediatricians caring for these children therefore should take an environmental history with careful attention to lead exposure.

The National Institute for Occupational Safety and Health (NIOSH) has found that take-home exposure, including lead exposure, is a widespread

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problem.[49,50] Jobs with lead exposure include but are not limited to: painting, building renovation, demolition, shooting range work, metal scrap cutting and recycling, plumbing, and other industrial fields.[50] A case report demonstrated paraoccupational lead exposures from an e-scrap recycling facility where the father of 2 children worked.[51] Pediatricians should ask about parents' occupations and hobbies that might involve lead.

Table 32-1 includes common sources of lead contamination, risk factors, and prevention strategies. Additional novel sources of exposure include foreign-purchased cosmetics;[52,53] Southeast Asian spices[54,55] and herbs;[56] dietary supplements;[57] religious powders;[55] ayurvedic[58] or ethnic remedies;[52,55] occupational take-home exposures;[49,51,59] and vocational exposures such as marksmanship.[60,61]

Table 32-2. Summary of Children's Health Effects by Blood Lead Level

BLOOD LEAD LEVEL	SUFFICIENT EVIDENCE OR CAUSAL DETERMINATION OF CHILDREN'S HEALTH EFFECTS
Below 5 mcg/dL	Nervous System Effects: ▪ Cognitive function: Decreases in IQ, academic achievement, specific cognitive measures ▪ Externalizing behaviors: Increased incidence of attention-related and problem behaviors
5–10 mcg/dL	Effects listed above plus Nervous System Effects: ▪ Auditory Function: decreased hearing Reproductive and Developmental Effects: ▪ Reduced postnatal growth ▪ Delayed puberty for girls and boys
10–40 mcg/dL	Effects listed above plus Nervous System Effects: ▪ Nerve function: slower nerve conduction Blood Effects: ▪ Decreased hemoglobin, anemia
40–80 mcg/dL	Effects listed above plus Gastrointestinal Effects: ▪ Abdominal pain, constipation, colic, anorexia, and vomiting
Above 80 mcg/dL	Effects listed above plus Nervous System Effects: ▪ Severe neural effects: convulsions, coma, loss of voluntary muscle control, and death

Adapted from President's Task Force on Environmental Health Risks and Safety Risks to Children, Key Federal Programs to Reduce Childhood Lead Exposures and Eliminate Associated Health Impacts Report.[12] Based on evidence from[62–66]

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SYSTEMS AFFECTED

Lead exposure has been linked to many adverse health effects (See Table 32-2).[62-64] Lead acts as a neurotoxicant to the developing brain, resulting in irreversible damage even at relatively low levels of exposure. For lead exposure most commonly identified in the United States, subclinical effects on the central nervous system (CNS) are the most common effects. The best-studied effect is cognitive impairment, measured by IQ tests[3] and poor academic achievement,[10] and externalizing behaviors (problem behaviors directed toward the external environment), such as aggression and disobeying rules.[65,66] Each child with high lead levels in the United States costs approximately $5,600 in medical and special educational services.[14] Cognitive impairment attributable to lead contamination was estimated to cost $50.9 billion annually in lost economic productivity.[20]

A robust literature demonstrated a relationship between BLL at the time of testing and decreased scores on reading and arithmetic tests that is apparent even in children aged 6 to 16, including those whose BLLs by then are less than 5 mcg/dL.[67] Canfield et al[9] reported that among 172 children followed prospectively with measurements of BLLs, 101 had never had a BLL greater than 10 mcg/dL, and there was still a strong negative relationship between BLL and IQ when the children were aged 3 to 5. In most countries, including the United States, BLLs peak at approximately age 2 years because of normal hand-to-mouth exploratory behaviors in this age group, and then decrease without intervention. Although there is some relationship between peak BLL and IQ tested later, it is now clear that contemporaneous blood lead, even though it is lower, is more strongly associated with school-aged IQ.[3,68] Although lead exposure is a risk factor for developmental and behavioral problems, its impact has significant individual variability, which may be modulated by the psychosocial environment and educational experiences of the developing child.[24] Many factors affect cognition and behavior.

Other aspects of CNS function also may be affected by lead, but they are less well documented. Subclinical effects on hearing[69,70] and balance[71] may occur at commonly encountered BLLs. Some studies measured tooth or bone lead levels, which are thought to represent integrated, possibly lifetime, exposure. Teachers reported that students with elevated tooth lead levels were more inattentive, hyperactive, disorganized, and less able to follow directions.[4,72] Further follow-up in 1 of the studies showed higher rates of failure to graduate from high school, reading disabilities, and greater absenteeism in the final year of high school.[73] Elevated bone lead levels were associated with increased attention dysfunction, aggression, and delinquency.[74]

Although there are reasonable animal models of low-dose lead exposure and cognition and behavior,[75] the mechanisms by which lead affects CNS function are not entirely elucidated. Studies examining brain metabolism suggest

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that these effects may be caused by neuronal dysfunction and alteration in myelin architecture.[76] Lead alters very basic nervous system functions, such as calcium-modulated signaling, at very low concentrations in vitro.[77] The age of 2 years, when lead levels peak, is the same age at which a major reduction in dendrite connections occurs, among other events crucial to development. Thus, it is plausible that lead exposure at that time interferes with a critical development process in the CNS, but what that process is has not been identified. Brain imaging studies in adults with elevated BLLs in childhood have demonstrated region-specific reductions in gray matter volume,[78,79] alterations of white matter microstructure,[80] and a significant impact of lead on brain reorganization associated with language function.[81]

Lead also has important non-neurodevelopmental effects. The kidneys are primary target organs; children exposed to lead are at significantly greater risk of having hypertension as adults. Another renal effect of lead in children is impaired 1-*d*-hydroxylation of vitamin D, a necessary step toward activating this vitamin. A cross-sectional study suggested that environmental exposure to lead may delay growth and pubertal development in black and Mexican-American girls.[82] Episodes of severe lead poisoning can cause growth arrest of long bones, producing "lead lines." Given the advent of more sensitive screening metrics, this is no longer an effective means of diagnosing lead poisoning.

Lead interferes with heme synthesis beginning at BLLs of approximately 25 mcg/dL and after 50 to 70 days or more of exposure.[83] *D*-aminolevulinate dehydratase, an early-step enzyme, and ferrochelatase, which closes the heme ring, are inhibited. Ferrochelatase inhibition is the basis of a formerly used screening test for lead poisoning that measured zinc protoporphyrin and erythrocyte protoporphyrin, the immediate heme precursor. These markers are insensitive measures of lower BLLs and are not specific to elevated BLLs because they also are elevated in the presence of iron deficiency, a common comorbidity among children with elevated BLLs. These markers are used today as a window into the chronicity of ongoing exposure, although it lags behind the BLL.

CLINICAL EFFECTS

Some children with BLLs greater than 40 mcg/dL may complain of headaches, abdominal pain, loss of appetite, or constipation, or they may be asymptomatic. Children displaying clumsiness, agitation, or decreased activity and somnolence are presenting with premonitory symptoms of CNS involvement that may rapidly proceed to vomiting, stupor, and convulsions.[84] Symptomatic lead toxicity should be treated as an emergency. Although lead can cause peripheral neuropathy and renal disease in adults with occupational exposures, these are rare in children.

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DIAGNOSTIC METHODS

A venous BLL measurement is the gold standard for the diagnosis of lead poisoning. A finger-stick or capillary sample can also be used if care is taken to avoid contamination. Elevated BLLs (5 mcg/dL or greater) found with a capillary test should be confirmed with a timely venous sample and followed by appropriate management of elevated levels based on current guidelines.[10,15,85] Once a child has had an elevated lead level, capillary measurements should no longer be obtained.

Blood Lead Testing

Until 1997, the AAP and CDC recommended that virtually all children have at least one measurement of blood lead beginning at age 12 months, with a retest at age 24 months, if possible. Because the prevalence of elevated BLLs has decreased substantially, in 1997 the CDC recommended that health departments determine a lead screening strategy for their jurisdictions on the basis of prevalence of housing risks, poverty rates, and children with elevated BLLs. Regardless of local recommendation, however, federal policy requires that all children enrolled in Medicaid receive screening blood lead tests at ages 12 and 24 months and that blood lead testing be performed for children aged 36 to 72 months who have not been tested previously.[10,11] This guidance also recommends that every child who has a developmental delay, behavioral disorder, or speech impairment, or who may have been exposed to lead, should receive a blood lead test.[5] Childhood lead testing is a national quality measure of clinical effectiveness. It is a recognized standard in the Health Effectiveness Data and Information Set (HEDIS), a widely used set of quality of care measures maintained by the National Committee for Quality Assurance for the accreditation of high-functioning managed care organizations and hospitals nationally.[86] Even though this recommendation exists, significant variability remains in lead testing, including for children most at risk who also may be disproportionately affected by gaps in the availability of systematic testing.

Assessments of risks for lead exposures and blood lead testing vary considerably by locale, from universal blood lead testing to targeted blood lead testing determined by risk assessment tools. Clinicians should consult city, county, or state health departments or their regional Pediatric Environmental Health Specialty Unit (www.pehsu.net) to determine the appropriate recommendations for their jurisdiction. This information also is available for most states on the CDC Web site (http://www.cdc.gov/nceh/lead/programs.htm). Children not enrolled in Medicaid and residing in states with no lead testing policy should have blood lead testing in accordance with Medicaid guidelines. The sensitivities of personal risk questionnaires and other substitutes for measuring BLLs vary according to the subgroup assessed and often are unacceptably low. These questionnaires may be more helpful in identifying and mitigating

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the source of exposure once an elevated ~~blood lead level~~ is identified.

Because of lead's effects on the developing fetus, the American College of Obstetrics and Gynecology and some states developed lead screening guidelines for pregnant women.[87] The CDC *Guidelines for the Identification and Management of Lead Exposure in Pregnant and Lactating Women* provides guidance about blood lead testing of pregnant women, medical and environmental management, and follow-up of mothers and infants when maternal lead levels are 10 mcg/dL or greater http://www.cdc.gov/nceh/lead/publications/leadandpregnancy2010.pdf.[88]

At-risk Subgroups

Children of all ages who are recent immigrants, refugees, or adoptees have an increased prevalence of elevated—sometimes very elevated—BLLs and should be tested at the earliest opportunity. Those aged 6 months to 6 years and older children, as warranted, should be retested 3 to 6 months after moving into permanent residences[36-40] This guidance refers to recent immigrant populations; there is limited guidance about the frequency of blood lead testing of other high-risk subgroups, such as children in foster care,[47] children with persistent pica behavior secondary to autism spectrum disorders or other neurodevelopmental disorders, or children with paraoccupational exposures.[5,42,46,89]

Diagnostic Testing

Some experienced clinicians measure the BLL in children with growth retardation, speech or language dysfunction, anemia, attention disorders, or other neurodevelopmental disorders, especially if the parents have a specific interest in ~~blood lead level~~ or in health effects from environmental chemicals. The persistent elevation of BLL into school age is unusual, however, even if peak BLL at age 2 years was high and the child's housing has not been abated. Thus, a relatively low BLL in a school-aged child does not rule out earlier lead exposure. If the question of current lead exposure arises, the only reliable way to make a diagnosis is with blood lead measurement. Abdominal radiography can be considered for children who have a history of pica for paint chips or excessive mouthing behaviors or if the BLL is 15 mcg/dL or greater (Table 32-3). Hair, urine, and teeth lead levels or long bone radiographs give no useful clinical information and should not be performed.[90]

No threshold or safe level has been identified for lead exposure. It therefore is critical to have a primordial prevention approach to eliminating lead exposure. Targeting elevated BLLs of 5 mcg/dL or greater is efficient for case management purposes and to mitigate continued exposures. This approach is not adequate to prevent unnecessary exposure to 'legacy lead' in vulnerable populations.[15]

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Table 32-3. Recommended Follow-up Actions, According to Blood Lead Level (BLL)[a]

BLL (MCG/DL)	ACTIONS
<5 mcg/dL	1. Review lab results with family. For reference, the geometric mean blood lead level for children aged 1 to 5 in the United States is less than 2 mcg/dL. 2. Repeat the blood lead level in 6 to 12 months if the child is at high risk or risk changes during the timeframe. Ensure lead testing is done at age 1 and age 2 and is based on local and state guidelines. 3. For children tested at age younger than 12 months, consider retesting in 3 to 6 months because lead exposure may increase as mobility increases. 4. Perform routine health maintenance including assessment of nutrition, physical and mental development, as well as iron deficiency risk factors as per the recommendations in Bright Futures (American Academy of Pediatrics). 5. Provide anticipatory guidance on common sources of environmental lead exposure: paint in homes built prior to 1978, soil near roadways or other sources of lead, take-home exposures related to adult occupations, imported spices, cosmetics, jewelry, folk remedies, and cookware.
5-14 mcg/dL	1. Perform steps as described above for levels less than 5 mcg/dL. 2. Re-test venous blood lead level within 1 to 3 months to ensure the lead level is not rising. If it is stable or decreasing, retest the blood lead level in 3 months. Refer patient to local health authorities if such resources are available. Most states require elevated blood lead levels be reported to the state health department. Contact the CDC at 800-CDC-INFO (800-232-4636) or the National Lead Information Center at 800-424-LEAD (5323) for resources regarding lead poisoning prevention and local childhood lead poisoning prevention programs. 3. Take a careful environmental history to identify potential sources of exposures (see #5 above) and provide preliminary advice about reducing/eliminating exposures (eg, wash children's hands/toys frequently, frequent damp mopping of floors, windows, and window sills, leave shoes at threshold, place duct tape or contact paper over chipping/peeling paint, cessation of renovations). Consider other children who may be exposed. 4. Provide nutritional counseling related to calcium and iron. In addition, recommend having a fruit at every meal because iron absorption quadruples when taken with Vitamin C-containing foods. Encourage the consumption of iron-enriched foods (eg, cereals, meats). Some children may be eligible for Special Supplemental Nutrition Program for Women, Infants and Child (WIC) or other nutritional resources.

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Table 32-3. Recommended Follow-up Actions, According to Blood Lead Level (BLL) (*continued*)

BLL (MCG/DL)	ACTIONS
	5. Ensure iron sufficiency with adequate laboratory testing (CBC, Ferritin, CRP) and treatment per AAP guidelines. Consider starting a multivitamin with iron or iron supplementation as indicated. 6. Perform structured developmental screening evaluations at child health maintenance visits per recommendations in Bright Futures, and referral to therapeutic programs (eg, Early Intervention Program, Individualized Education Programs) because lead's effect on development may manifest over years.
15-44 mcg/dL	1. Perform steps as described above for levels 5-14 mcg/dL. 2. Determine if there is any evidence of symptomatology. 3. Confirm blood lead level with venous sample within 1 to 4 weeks. Higher levels require more rapid confirmation. 4. Home investigation to assess for the lead source, if available. If not available, consult with regional ~~PESHU~~ regarding other options. 5. Additional, specific evaluation of the child, such as abdominal radiograph should be considered based on the environmental investigation and history (eg, pica for paint chips, mouthing behaviors). Gut decontamination may be considered if radio-opaque foreign bodies consistent with ingested lead are visualized on radiograph. Any treatment for blood lead levels in this range should be done in consultation with an expert. 6. Contact local PEHSU or PCC for guidance
>44 mcg/dL	1. Follow guidance for BLL 15-44 mcg/dL as listed above. 2. Confirm the blood lead level with repeat venous lead level within 48 hours. 3. Obtain a complete blood count, electrolytes, BUN, creatinine, ALT, and AST in anticipation of chelation therapy. 4. Abdominal radiograph should be done to look for radio-opaque foreign bodies suggestive of recent ingestion because this finding may change management. 5. Emergently admit all symptomatic children to a hospital; if there is evidence of significant CNS pathology, consider PICU admission. If asymptomatic, consider hospitalization and/or chelation therapy (managed with the assistance of an experienced provider) based on status of the home with respect to lead hazards, ability to isolate the lead source, family social situation, and chronicity of the exposure are factors that may influence management. 6. Contact your regional PEHSU or PCC for assistance.

[a] Adapted from Pediatric Environmental Health Specialty Unit. Medical Management of Childhood Lead Exposure and Poisoning. http://www.pehsu.net/_Library/facts/medical-mgmnt-childhood-lead-exposure-June-2013.pdf. Accessed April 9, 2018.

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TREATMENT OF CLINICAL SYMPTOMS

A multipronged management approach should be provided to all children with a BLL of 5 mcg/dL or greater.[11,15,16] (see Table 32-3) Proper management includes finding and eliminating the source of the lead, instruction in proper hygienic measures (personal and household), optimizing the child's diet and nutritional status, and close follow-up (see Tables 32-3 and 32-4). Because most children with higher BLLs live in or visit regularly a home with deteriorating lead paint, successful therapy depends on eliminating the child's exposure. Any treatment regimen that does not control environmental exposure to lead is considered inadequate. Pediatricians should refer children with elevated BLLs to local public health officials for environmental assessment of the child's residence(s), or other experts in childhood lead exposure, such as the regional Pediatric Environmental Health Specialty Unit (PEHSU). Public health staff should conduct a thorough investigation of the child's environment and family lifestyle for sources of lead. Childhood lead exposure is a multifaceted, complex

Table 32-4. Clinical Evaluation*

Medical History

Ask about
- Symptoms
- Developmental history
- Mouthing activities
- Pica
- Previous BLL tests
- Family/maternal history of exposures to lead

Environmental History

Paint and soil exposure
- What is the age and general condition of the residence?
- Is there evidence of chewed or peeling paint on woodwork, furniture, or toys?

How long has the family lived at that residence?
- Have there been recent renovations or repairs in the house?
- Are there other sites where the child spends significant amounts of time?
- What is the character of indoor play areas?
- Do outdoor play areas contain bare soil that may be contaminated?
- How does the family attempt to control dust/dirt?

Water exposure
- Does the child's home have leaded pipes or fixtures?
- Has the water been tested at that residence?
- Has the water been tested at other places where the child spends significant amounts of time?

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Table 32-4. Clinical Evaluation (*continued*)

Relevant Behavioral Characteristics of the Child
- To what degree does the child exhibit hand-to-mouth activity?
- Does the child exhibit pica?
- Are the child's hands washed before meals and snacks?

Exposures to and Behaviors of Household Members
- What are the occupations of adult household members?
- What are the hobbies of household members? (Fishing, working with ceramics or stained glass, and hunting are examples of hobbies that involve risk for lead exposure)
- Are painted materials or unusual materials burned in household fireplaces?

Miscellaneous Questions
- Does the home contain vinyl miniblinds made overseas and purchased before 1997?
- Does the child receive or have access to imported food, cosmetics, or folk remedies?
- Is food prepared or stored in imported pottery or metal vessels?

Nutritional History
- Take a dietary history
- Evaluate the child's iron status using appropriate laboratory tests
- Ask about history of food stamps or Special Supplemental Nutrition Program for Women, Infants, and Children program (WIC) participation

Physical Examination
- Pay particular attention to the neurologic examination and to the child's psychosocial and language development
- Pay particular attention to stigmata of anemia, for example conjunctival pallor and tachycardia

[a]Adapted from Centers for Disease Control and Prevention.[11]

condition affecting not only the child's health and well-being, but also the family's housing security, economic status, job security, and stress level.

Deteriorated lead paint is the most common source of exposure, but other sources should be considered (see Table 32-1). BLLs should decrease as the child passes the age of 2 or so, and a stable or increasing BLL past that age is likely to be attributable to ongoing exposure. Among children who have spent prolonged periods in a leaded environment, BLLs will decrease more slowly after exposure ceases,[84] probably because bone stores are greater.

The CDC Advisory Committee on Childhood Lead Poisoning Prevention, the AAP, and the PEHSU network, among other sources, have published potential strategies for a multipronged approach to managing elevated ~~blood lead levels~~ in children (see Table 32-3).[10,15,35] No studies have identified effective strategies

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to reduce BLLs of less than 5 mcg/dL.[91] Treatment strategies in the primary care setting include family counseling and education about dietary sources of iron, calcium, vitamin C, vitamin D, and magnesium. Nutritional deficiencies can influence lead absorption and may have their own associations with neurodevelopmental sequelae independent of lead exposures. Specific attention should be paid to identifying and treating iron deficiency and ensuring adequate calcium and zinc intake.

Lead may cause neurotoxic injury known to impair later academic performance and affect life success. At a BLL of 5 mcg/dL or greater, children are 30% more likely to fail third grade reading and math tests and more likely to be non-proficient in math, science, and reading.[92,93] Thus, one of the recommendations for a young child with an elevated BLL is to refer the child to early intervention or a similar educational enrichment program. As of 2013, the majority of states specifically listed elevated ~~blood lead levels~~ or exposure to toxic substances as eligibility criteria for early intervention services.[94]

Chelation therapy for children with venous BLLs of 20 to 44 mcg/dL can be expected to lower BLLs but has not been shown to reverse or diminish cognitive impairment or other behavioral or neuropsychological effects of lead.[95] Chelation therapy is recommended if the venous BLL is greater than 45 mcg/dL and the exposure has been controlled. A pediatrician experienced in managing children with lead exposure should be consulted—these can be found through the PEHSUs,[85] Poison Control Centers, or through lead programs at state health departments (see Resources). Additional detailed medication treatment guidelines were published by the AAP.[96]

Prevention of Exposure

The reduction in childhood lead exposure in the United States over the past 4 decades is a testament to the success of a multipronged approach to widespread identification of children with lead exposures, enforcement of the housing code, facilitated residential inspections, careful mitigation and abatement efforts, and educational outreach to the lay public and health care providers by nongovernmental and governmental agencies. There remains the need to address the widespread issue of 'legacy lead': the contamination of housing and continued exposure of children in the United States. Because no safe ~~blood lead level~~ has been identified, in 2012 the CDC and the Advisory Committee on Childhood Lead Poisoning advised that the best way to end the problem is to control, prevent, or eliminate exposures.[10,11]

Primordial prevention efforts must focus on removing lead from the environment before a child has a chance to become exposed. Primordial prevention efforts contrast to secondary prevention, the identification and management of individual cases after exposure already has caused elevated

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blood lead with potentially deleterious neurodevelopmental effects.[12] It is of paramount importance to implement primordial prevention techniques through ongoing identification of lead-contaminated housing and definitive abatement. It is estimated that each $1 invested in housing abatement of lead hazards results in a return of $17 to $221.[97] The most persistent source of lead in a child's environment–contaminated housing–has been the primary focus of prevention efforts. Individuals who conduct residential abatement (the removal and replacement of lead pipes, enclosure or encapsulation of lead-based paint or lead-contaminated dust or soil) must receive training to minimize further exposure to lead.[22,99] Paint stripping, covering painted areas by sealing or encasement, using high-efficiency particulate air (HEPA) vacuuming and HEPA air filters, and soil and dust removal are all effective methods for lead abatement. Removing all lead from homes and soil in the United States has not, however, been considered as a feasible prevention strategy because of the high cost of abatement. The US EPA and other public health agencies have focused on both primordial lead poisoning prevention outreach.

The costs of remediating residential housing and plumbing are substantial and often pose formidable barriers to compliance by landlords, homeowners, and governmental agencies. Prevention approaches that focus on primary and secondary prevention efforts among high-risk communities are increasingly being used. An approach that incorporates neighborhood-level lead exposure data and census attributes (eg, percent of the population living below the poverty threshold; percent of old housing stock; percent of young children) has the benefit of concentrating the impact of the prevention effort in specific high-risk areas.[15,100-103]

Pediatric health care providers have important roles to play in case finding and managing childhood lead exposure. The testing and subsequent retesting of children with an elevated BLL is paramount in case finding and reducing the chronicity of lead exposure.

Frequently Asked Questions

Q *My child was tested and has elevated lead in his blood. How can I eliminate exposure?*

A In children with elevated ~~blood lead levels~~, interventions have to be not only effective but also very safe. I am going ask you about potential sources of lead exposure in your home, will test your child for anemia and iron deficiency, and provide iron supplements if needed. We will talk about making sure he has the proper nutrition. I will refer you to our local health department to help identify the lead source and make sure that the source in your home is safely removed. Unsafe renovation practices can further expose children to lead hazards. Having a child with a BLL of 5 or

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10 mcg/dL may be a source of concern, but no specific drug therapies have been tested and shown to be safe and effective at these low ~~blood lead levels~~ and are not recommended.

Q *What about testing for lead in water?*

A If you are using tap water to reconstitute infant formula or juice or there has been local concern, you may want to have your water tested. To help determine whether your water might contain lead, call the US Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791 or your local health department to find out about testing your water. Well water should be tested for lead when the well is new and tested again when a pregnant woman, infant, or child younger than age 18 years moves into the home. For a discussion of well water for infants, see the AAP policy statement on drinking water from private wells.[27] Most water filters, if used correctly, remove lead.

Q *We have imported cookware and use imported spices, cosmetics, and ayurvedic medicines. Is it safe to use them?*

A Some imported cookware contains lead. As the dishes wear or become chipped or cracked, lead can leach from the dishes into foods. The US Food and Drug Administration began regulating lead in cookware made in the United States in the 1980s and further strengthened regulations in the 1990s. Dishes made in the United States before these regulations took effect may contain lead. Studies have demonstrated that some imported spices such as turmeric, cosmetics such as kohl and sindoor, and ayurvedic medicines may be contaminated with lead. Because 80% of the spices used in the United States are imported, it is difficult to monitor all spices for contaminants. Although the U.S. Food and Drug Administration is working with other countries to improve the quality of imported spices, cosmetics, and supplements, it always is wise to consider that these products may be sources of lead. When possible, consider using products made in the United States.[52-55]

Q *Lead was found in my child's school drinking water fountain. Should I have tested for her blood lead level?*

A Under the Lead and Copper Rule, there are no special provisions that schools and public early education and childcare facilities that meet the definition of a public water system are required to be included as sampling locations. If an elevated water lead level was reported at your child's school, local resources such as the school, health department, or Pediatric Environmental Health Specialty Unit can be contacted to determine if ~~blood lead level~~ testing is indicated. It is important to take actions to minimize all sources of lead exposure. The primary source of lead exposure for most US children is from contaminated dust and soil. Schools should

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work with local, state, and regional resources to establish programs to test for lead in drinking water and other media (eg, lead-based paint and soil) and to develop a coordinated health messaging response for families and their communities. The US EPA has developed a 3Ts (Training, Testing, and Telling) toolkit to assist school and childcare facilities to address lead in drinking water in their local communities (see Resources).

Q *I saw my toddler eating a piece of lead-containing paint. What should I do?*

A Bring your child to the office so we can test him for lead. He may have ingested similar substances even before you noticed him eating the paint chip. Levels of lead in the blood rise rapidly (within hours to days) and can continue to rise as the paint chip moves through his digestive system. Once the object has been excreted, the blood level will fall to a new level over the next month. If his lead level is 15 mcg/dL, we may want to get an abdominal radiograph to see if there is lead there. If that is the case, I will consult with experts in lead exposure to see about next steps. I also will check your child for iron deficiency and treat him with iron if needed.

Your local or state health department may become involved to provide education or visit your home to determine the source of lead exposure. It is important to ask about reliable resources in the community to help to resolve the lead problem, if needed; health departments often are not able to provide this service themselves.

Q *Is there still lead in canned food?*

A Cans with soldered seams can add lead to foods. In the United States, soldered cans have been replaced by seamless aluminum containers, but some imported canned products still have lead-soldered seams.

Q *What are resources for lead?*

A There are several resources for lead exposure and prevention. Please contact your regional Pediatric Environmental Health Specialty Unit (PEHSU) Network, Poison Control Center, or local public health department's childhood lead poisoning prevention program for further information.

Q *How can I tell if a toy has lead paint or is made of lead?*

A Toys are not all routinely tested for lead. Companies that do not uniformly test the toys before selling them import many toys from countries with poorly enforced safety rules. The AAP advises parents to monitor the Consumer Product Safety Commission Web site for notices of recalls and to avoid non-brand toys and toys from discount shops and private vendors. Old and used toys should be examined for damage and clues to the origin of the toy. If the toy is damaged or worn or from a country with a history of poor monitoring of manufacturing practices, the safest action is to not let your child use it. Be particularly attentive to costume jewelry and other small metal pieces that can be swallowed.

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Resources

Centers for Disease Control and Prevention Childhood Lead Poisoning Prevention Program
Tel: 1-800-232-4636
Web site: www.cdc.gov/nceh/lead

EPA National Lead Information Center
Tel: 1-800-424-LEAD
Web site: https://www.epa.gov/lead/forms/lead-hotline-national-lead-information-center

EPA Office of Children's Health Protection
Tel: 202-564-2188
Web site: https://www.epa.gov/children

EPA Safe Drinking Water Hotline
Tel: 1-800-426-4791

EPA's 3Ts (Training, Testing, and Telling Approach) for Reducing Lead in Drinking Water in Schools
Web site: www.epa.gov/dwreginfo/lead-drinking-water-schools-and-child-care-facilities

Office of Healthy Homes and Lead Hazard Control, Department of Housing and Urban Development
Web site: www.hud.gov/offices/lead

Pediatric Environmental Health Specialty Unit (PEHSU) Network
Tel: 888-347-2632
Web site: www.pehsu.net

Poison Control Center (PCC)
Tel: 1-800-222-1222
Web site: www.aapcc.org/

President's Task Force on Environmental Health Risks and Safety Risks to Children, Key Federal Programs to Reduce Childhood Lead
Web site: https://ptfceh.niehs.nih.gov/

U.S. Environmental Protection Agency (EPA) Lead Paint Program
Tel: 1-800-424-5323
Web site: www.epa.gov/lead

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Chapter 58

Global Climate Change

KEY POINTS

- There is broad consensus that our warming climate results mainly from human activity.
- Children are among the most vulnerable to health and other adverse effects of climate change.
- Pediatricians can adopt mitigation and adaptation strategies in response to climate change.

INTRODUCTION

Weather describes atmospheric conditions over weeks, days, and hours. Climate describes weather conditions averaged over months and longer. Although the Earth's climate has been stable for most of modern human history, it is now changing. Each of the last 3 decades has been successively warmer than any preceding decade since 1850. The globally averaged temperature (combined land and ocean surface) increased 0.85°C (0.65°C to 1.06°C) between 1850 and 2012. Much of this increased heat has been absorbed by the ocean.[1] In the United States, the average temperature has increased by approximately 0.83°C since record keeping began in 1895, most of which has occurred since approximately 1970.[2] The warmest year ever recorded in the 137-year record was 2016, marking it as the third consecutive year of record global warmth.[3] The second warmest year on record was 2015, and the third warmest was 2017.

There is broad consensus that rising global temperature is primarily a result of increasing concentrations of human-generated greenhouse gases, primarily carbon dioxide (CO_2), over the last century.[4,5] Atmospheric CO_2 has

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increased from approximately 280 parts per million (ppm) before the industrial revolution to greater than 400 ppm in 2017, a level last reached approximately 3 million years ago.[6] This increase is primarily a result of fossil fuel emissions and secondarily a result of deforestation that reduces carbon storage.[1] Approximately half of the total CO_2 increase has occurred in the last 40 years.[7]

The Earth's climate has changed naturally throughout its history. The last ice age ended only about 14,000 years ago, when the global surface temperature was about 5°C lower than it is today. Over the following approximately 5,000 years, the Earth's temperature gradually warmed and then stabilized. It is in this stable climate that modern human civilization developed. About 100 years ago, human activities caused a rapid increase in CO_2 and other greenhouse gas concentrations in the atmosphere, causing global temperature to rapidly increase (Figure 58-1).[2] The heat-trapping nature of CO_2 and other gases has been recognized since the 1800s[8] and can be demonstrated by simple experiments. It has been agreed by 99.94% of publishing scientists[9] and virtually every relevant scientific organization in the world[4,5,10,11] that increasing greenhouse gases are the major driver of current climate change rather than natural factors that caused changes in the Earth's past.

Warming of the planet is associated with shrinkage of glaciers across the world, decreasing mass of ice sheets in Greenland and the Antarctic, and diminished spring snow cover in the Northern Hemisphere. The frost-free season has increased in every region of the United States, with increases ranging from 6 to 19 days.

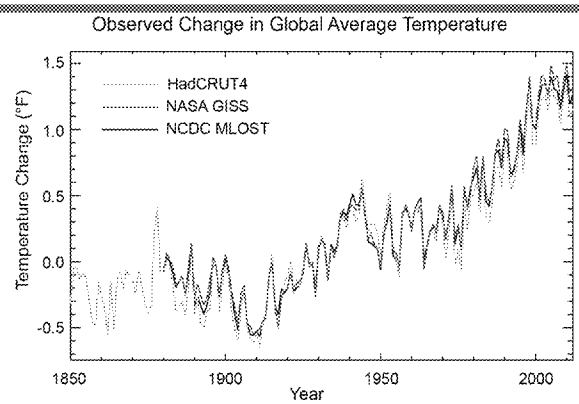

Figure 58-1. Three different global surface temperature records all show increasing trends over the last century. The lines show annual differences in temperature relative to the 1901-1960 average. Differences among data sets, because of choices in data selection, analysis, and averaging techniques, do not affect the conclusion that global surface temperatures are increasing. Source: National Climate Assessment[1]

Abbreviations: HadCRUT4, Data from Met Office Handley Center, UK and Climatic Research Unit, University of East Anglia, UK (http://dx.doi.org/10.1029/2011JD017187); NASA GISS, GISTEMP dataset from NASA's Goddard Institute for Space Studies (http://data.giss.nasa.gov/gistemp/); NCDC MLOST, NOAA dataset (https://www.ncdc.noaa.gov/data-access/marineocean-data/mlost).

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The global sea level has risen by approximately 8 inches since 1880, and the rate of rise has accelerated. It is projected to rise another 1 to 4 feet by the year 2100.[2] Regions experience varying relative sea level rise because of local changes in land movement or coastal circulation patterns.[12]

Warmer air has greater capacitance for water vapor than cooler air, contributing to an increase in heavy precipitation events in many regions, including the United States. Increases have been greatest in the Midwest and Northeast. Conversely, prolonged record high temperatures have been associated with droughts, particularly in the Southwestern United States.[2]

More frequent and or/prolonged heat waves are affecting many regions, whereas the number of extreme cold waves in the United States is the lowest since record keeping began.[2] Other forms of severe weather, such as hurricanes in the North Atlantic, have increased in intensity since 1970, although causality remains uncertain.[1] From 2000 through 2009, 3 times more natural disasters occurred than from the period of 1980 through 1989. Deforestation, environmental degradation, urbanization, and intensified climate variables have also contributed to an increased scale of natural disasters.[13] Wildfire frequency, duration, and severity in North American forests have increased.[14]

Climate change is occurring, and some continued changes are inevitable because of past and present emissions. However, projected levels of global warming, sea ice shrinkage, and sea level rise by the mid-21st century vary greatly for different greenhouse gas emission scenarios (Figure 58-2). Limiting temperature rise to 2°C above preindustrial times has been envisioned by the

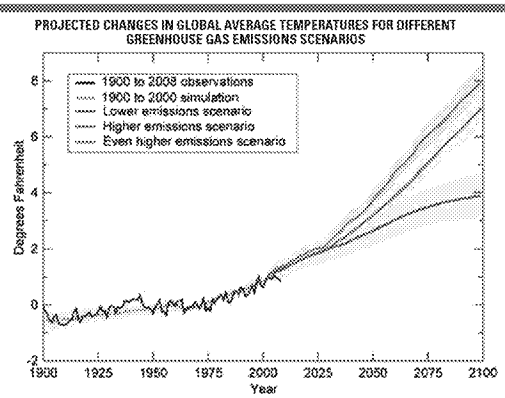

Figure 58-2. Scientists have modeled future temperature changes based on a variety of greenhouse gas emissions scenarios. Each scenario is based on a set of assumptions about population trends, economic development, and technology—all of which affect the amount of greenhouse gases emitted over time. The figure shows the best estimate (solid line) and likely range (shaded area) of how much temperature will have changed at different points in time relative to the 1960 to 1979 average for emissions scenarios cited.

Source: Centers for Disease Control and Prevention[15]

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Intergovernmental Panel on Climate Change (IPCC) as a goal to prevent the most damaging consequences on humans, food systems, and ecosystems.[16] Higher future emission levels will result in more warming and, thus, more severe effects on the natural world, human society, and health.[2]

CLIMATE CHANGE-ASSOCIATED HEALTH EFFECTS IN CHILDREN

Major determinants of human health are being affected by observed changes in temperature, precipitation patterns, sea level, and extreme weather events. Children's immature physiology and metabolism; incomplete development; higher exposure to air, food, and water per unit body weight; unique behavior patterns; and dependence on caregivers place them at a much higher risk of climate-related health burdens than adults.[17] It is estimated that 88% of the existing global burden of disease attributable to climate change occurs in children aged younger than 5 years in both industrialized and developing countries.[18] Children in the world's poorest regions, where the disease burden is already disproportionally high, are at greatest risk from climate change.[19]

Climate change is affecting the health of children today through increased heat stress, decreased air quality, altered disease patterns of some climate-sensitive infections, physical and mental health effects of extreme weather events, and food insecurity in vulnerable regions. At present, the global health burden attributable to climate change is poorly quantified compared with other health stressors.[14] Over the 21st century, however, it is expected that the negative health effects will increase.

Climate change effects on human health have been categorized as primary, secondary, and tertiary. Although the primary effects are easiest to detect, many significant effects will occur through climatic influences on environmental systems and social conditions. Broad societal impacts of unchecked climate change have the potential for the most far-reaching effects and can be categorized as tertiary.[20,21]

Primary

Children are at direct risk of injury or death as a result of extreme weather events, including severe storms, floods, and wildfires. Children's unique health, behavioral, and psychosocial needs place them at unique risk from these events.[22] Extreme weather events place children at risk of injury,[23] loss of or separation from caregivers,[22] exposure to infectious diseases,[24] and mental health consequences, including posttraumatic stress disorder (PTSD), depression, and adjustment disorder.[25] Devastation of homes, schools, and neighborhoods as result of disasters can cause irrevocable harm to children's physiologic and cognitive development.[26]

In 2017, Hurricane Harvey hit Houston, Texas. This event impacted up to 3 million children, caused over 34,000 people to take refuge in shelters,

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and caused over 1 million children not to start school on time.[27] Following Hurricanes Katrina and Rita in 2005, more than 5,000 children were separated from their families and the last missing child was reunited with her family after 6 months.[22] Between 200,000 and 300,000 children were evacuated and temporarily or permanently relocated.[28]

Children displaced by Hurricane Katrina experienced an average of 3 moves per child. Some experts believe that a child requires 4 to 6 months for academic recovery following a move that results in a change in schools.[21] In the year following Hurricane Katrina, displaced students in Louisiana public schools performed worse, on average, in all subjects and grades compared with other students.[21] Displaced students experienced problems related to attendance, academic performance, behavior, and mental health.[22] In 1 study, 11.5% of children and adolescents experienced serious emotional disturbances that persisted 3 years after the hurricane compared with an estimated 4.2% prevalence before the hurricane.[29] Another study found PTSD symptoms in 46% of 4th through 6th graders 33 months after Hurricane Katrina.[30]

Increased severity and duration of heat waves put children at direct risk of heat illness. Numerous studies in diverse countries have shown an increase in child morbidity and mortality during extreme heat events.[31] Infants younger than 1 year[32,33] and high school athletes[34,35] appear to be at particularly increased risk of heat-related illness. The Centers for Disease Control and Prevention (CDC) reports heat illness as a leading cause of death and disability in high school athletes, with a national estimate of 9,237 illnesses annually; football players were at highest risk.[34] This risk appears to be increasing. Between 1997 and 2006, emergency department (ED) visits for heat illness increased 133.5%, according to 1 study.[36] The number of deaths from heat stroke per 100,000 American football players increased after the mid-1990s. Increased minimum apparent temperatures are thought to have contributed to this increase, particularly because more than one half of the deaths occurred in the morning.[37]

Secondary

Climate change alters the environmental systems on which humans rely and causes shifts in ecosystems and diseases of animals, crops, and natural systems. Air quality is reduced through temperature-associated elevations in ground-level ozone concentration.[38] Ozone concentrations in the United States have been projected to increase by 5% to 10% between now and the 2050s because of climate change alone.[39] Climate change-associated increases in ground-level ozone may result in increased visits to the ED for children with asthma, with 1 study showing an increase of 5% to 10% in New York City by 2020.[38]

Rising global temperature and atmospheric CO_2 concentrations have been associated with increased length and severity of the pollen allergy season.[40,41]

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In North America, delayed first frost and lengthening of the frost-free period has been associated with a lengthening of the ragweed pollen season by 13 to 27 days since 1995, with greater increases in higher latitudes.[40] Ragweed and grass pollen production have been shown to increase in response to increased levels of CO_2.[42,43] Average US pollen counts increased by more than 40% in the 2000s relative to the 1990s.[44] Longer and more severe allergy seasons exacerbate respiratory diseases, such as asthma, in children.[45]

Wildfire smoke contains hundreds of chemicals, many of which are harmful to human health. These include particulate matter, carbon monoxide, and ozone precursors, all of which can exacerbate children's respiratory diseases and asthma.[46]

Climate influences the behavior, development, and mortality of a wide range of living organisms,[47,48] some of which have the potential to cause infection in children. It is difficult, however, to precisely determine the effects of climate change on infectious diseases because of the confounding contributions of economic development and land use, changing ecosystems, international travel, and commerce.[49] Currently, climate warming has been identified as contributing to the northern expansion of Lyme disease in North America.[50] Earlier onset of the Lyme disease season has been correlated to more warm days (greater than 10°C) during the first 5 months of the year.[51] Higher temperatures have a positive effect on mosquito population, survival, range, disease transmission season, and replication of some viruses within the mosquito.[52,53] These factors may contribute to the global spread of mosquito-borne diseases, including dengue, chikungunya, and Zika.

In general, cases of bacterial gastroenteritis, including *Salmonella*, *Campylobacter*, *Escherichia coli*, *Cryptosporidium*, and *Shigella*, increase when temperatures are higher although patterns vary by organism and location.[54–57] Concern has been expressed that these infections may increase because of rising global temperatures. Heavy precipitation and drought events have been associated with increased gastrointestinal illness resulting from disruption and contamination of water systems.[58–60] It has therefore been projected that the burden of childhood diarrheal illness will increase, particularly in Asia and sub-Saharan Africa, where the disease risk is already high.[61] Concern has also been expressed about climate links to emerging infections, including coccidioidomycosis[62] and amebic meningoencephalitis.[63] Further investigation into climatic influences on infectious diseases is needed.

Altered agricultural conditions, including extreme heat, increased water demands, and increased severe weather events, will affect food availability and cost, particularly in vulnerable regions where child undernutrition is already a major threat.[64] An additional 95,000 child deaths caused by malnutrition and an additional 7.5 million moderate or severely growth-stunted children have been projected for the year 2030 compared with a future with no climate

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change.[61] Decreased protein, iron, and zinc content of certain major crops has been demonstrated for plants grown under increased CO_2 conditions,[65,66] carrying significant implications for child nutrition.

Tertiary

Children's biological and cognitive development occurs within the context of stable families, schools, neighborhoods, and communities. The social foundations of children's mental and physical health and well-being are threatened by unchecked climate change, through effects of sea level rise and decreased biologic diversity on the economic viability of agricultural, tourism, and indigenous communities; water scarcity and famine; disruption of power and supply chains; mass migrations; decreased global stability;[67] and potentially increased violent conflict.[68] These effects will likely be greatest for communities already experiencing socioeconomic disadvantage.[69]

SOLUTIONS TO CLIMATE CHANGE THROUGH MITIGATION AND ADAPTATION STRATEGIES

Mitigation strategies strive to limit climate change effects through reductions in greenhouse gas emissions. Reducing energy consumption and waste; decreasing reliance on carbon-intensive fuels including coal, oil, and gas; increasing use of renewable energy sources, such as wind and solar; and incorporating low carbon footprint building design, transportation, and food supply systems are all necessary to minimize planetary warming attributable to carbon pollution. Such a paradigm shift in production and consumption of energy presents an opportunity for major innovation, job creation, and significant, immediate associated health benefits.[70] A low-carbon economy can promote increased physical activity, decreased air pollution, and reduced red meat consumption, all of which benefit health. Protection of child health, safety, and security underlies the American Academy of Pediatrics' support of national and international initiatives to reduce greenhouse gas emissions and mitigate further planetary warming. These include AAP's support for the US Environmental Protection Agency's Clean Power Plan[71,72] and the Paris Climate Agreement, an agreement within the United Nations Framework Convention on Climate Change to mitigate global warming from which President Donald Trump withdrew the United States in 2017.[73]

Adaptation strategies involve developing policies that increase preparedness for current and anticipated climate-associated changes. Such diverse policies include early warning systems for extreme weather events, physical protection against such events, hospital and health system preparedness, anticipating power and supply chain disruptions, improving surveillance of climate-associated infectious diseases, developing climate-resistant crops, and enhancing community resilience.[74] Strategies also include educating health

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Table 58-1. Responding to Climate Change: What Pediatricians Can Do

IN YOUR PRACTICE

Adaptation

- Maximize immunizations
- Educate families on preparedness for:
  1. excessive heat, using http://emergency.cdc.gov/disasters/extremeheat/index.asp as a guide
  2. reduced air quality, using https://www.airnow.gov as a reference for local air quality
  3. extreme weather events, using https://www.ready.gov as a reference
  4. vector-borne illness, using www.cdc.gov/ncezid/dvbd/index.html as a guide
- Identify and report unusual diseases or disease patterns
- Refer to AAP Red Book for management of infectious diseases https://redbook.solutions.aap.org/
- Support medical education opportunities on climate-associated health risks

Mitigation

- "Green" your office and hospital; helpful references include:
  1. The American College of Physicians "Greening the Physician Office" at https://www.acponline.org/system/files/documents/advocacy/advocacy_in_action/climate_change_toolkit/greening_the_physician_office.pdf
  2. Practice Greenhealth (https://practicegreenhealth.org)
  3. HealthCare Without Harm (https://noharm.org)
  4. MyGreenDoctor (~~http://~~www.mygreendoctor.org)
- Institute policies to reward coworkers who bike/walk/carpool/use public transportation
- Reduce waste and recycle
- Engage medical students and residents in advocacy for the planet
- Offer expert testimony, speak at hearings, write op-eds on health threats from climate change
- Post and distribute educational materials about the relationship between climate change and child health, and actions that reduce climate change
- Acknowledge that pediatricians are generally perceived as trusted experts and that modeling sustainable lifestyles impacts coworkers and patients

WORKING WITH LOCAL PUBLIC HEALTH OFFICIALS

- Engage in disaster preparedness and response planning
- Develop low toxicity approaches to insect and toxic plant control
- Augment surveillance of climate-related infectious diseases

IN YOUR COMMUNITY/REGION

- Engage your state AAP chapter on climate change and child health and related advocacy
- Advocate for greener energy power sources
- Serve as an expert resource for public officials
- Engage in education on climate change at schools, community centers and places of worship
- Support local, organic agriculture, green space and pedestrian-centered communities
- Engage in community readiness planning for extreme events

Abbreviation: AAP, American Academy of Pediatrics

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care providers and vulnerable patients about climate-associated health risks, such as managing chronic diseases during periods of extreme heat or poor air quality.

STRATEGIES FOR PEDIATRICIANS AND THE HEALTH SECTOR

As advocates for children, pediatricians have a critical role to play in the societal response to climate change. Table 58-1 provides recommendations to pediatricians to help achieve this goal.

Frequently Asked Questions

Q *What impact can individual actions have on a problem as overwhelming as global climate change?*

A Carbon dioxide emissions come from creating electricity to power homes and businesses and driving vehicles. Collectively, changes made to reduce individual carbon emissions through energy conservation and efficiency not only will have global impact but also are a necessary part of effective greenhouse gas mitigation strategies. Individuals can also speak out to peers and policy makers to increase awareness about the health impacts of climate change, and exercise influence through the media, consumer choices, and voting.

Q *What practical actions can pediatricians take to fight climate change?*

A The table "Responding to Climate Change" and the AAP policy statement "Global Climate Change and Child Health"[75] contain concrete actions and recommendations for pediatricians. Pediatricians and other pediatric health care professionals can work to reduce emissions in their personal and professional lives, support policy changes to prepare for and lessen future climate change, and work with local and regional public health officials to develop strong, locally relevant adaptive strategies to minimize the health consequences from climate change.[76,77]

Q *How should considerations about climate change be incorporated into pediatric practice?*

A Every parent can do something every day to protect their children against dangerous climate change. For example, parents and children can increase walking and biking, reduce waste production, and support clean energy utilization. Families should understand how to access, interpret, and use local air quality indices, daily pollen counts, and heat advisories. Families should be also encouraged to develop disaster response plans for the extreme weather events and weather disasters likely to occur in their locale. Pediatricians should remember that as health care providers they serve as important lifestyle role models and the choices they make can educate and impact the behavior of others.

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Q *How much time do we have before it is too late to do anything about climate change or avoid catastrophic climate change?*

A Although the effects of climate change are already being felt across the world, the magnitude of the effects of future changes depends on our ability to substantially reduce greenhouse gas emissions and implement adaptation strategies within the ensuing decades.[7]

Q *Why should pediatricians be involved in climate change issues?*

A Pediatricians speak for children, a vulnerable and politically powerless constituency. Children cannot take the individual and political actions needed to ensure a safe climate for the future in which they will live and raise their own families. The history of pediatrics is one of advocacy for the rights and health of children; working to mitigate and adapt to climate change is consistent with that history.

Resources

Climate Change Science

Intergovernmental Panel on Climate Change www.ipcc.ch
NASA Global Climate Change http://climate.nasa.gov
National Academy of Sciences http://nas-sites.org/americasclimatechoices/
NOAA Climate www.noaa.gov/climate.html
The Lancet health and climate change www.thelancet.com/climate-and-health
US EPA, Climate Change Indicators in the United States www3.epa.gov/climatechange/science/indicators/index.html
U.S. Global Change Research Program www.globalchange.gov/what-we-do/assessment

Climate Change Solutions

A Human Health Perspective on Climate Change www.niehs.nih.gov/health/materials/a_human_health_perspective_on_climate_change_full_report_508.pdf
American Academy of Pediatrics www.aap.org/climatechange
American College of Physicians Climate Change Toolkit https://www.acponline.org/advocacy/advocacy-in-action/climate-change-toolkit; CDC Climate and Health www.cdc.gov/climateandhealth/default.htm
Children's Environmental Health Network http://cehn.org
Health Care Without Harm https://noharm.org
Mom's Clean Air Force www.momscleanairforce.org
My Green Doctor www.mygreendoctor.org
Practice Greenhealth https://practicegreenhealth.org

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Message

From: Etzel, Ruth [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=96A20535ABB54ED4ABF1E40D2AA916D9-ETZEL, RUTH]
Sent: 9/5/2018 5:42:27 PM
To: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
CC: Firestone, Michael [Firestone.Michael@epa.gov]
Subject: Briefing the Acting Deputy Administrator
Attachments: 8-15-18 Summary version of the Draft Federal Lead Strategy.pdf; 08-07-18 Response to LRM Comments Master Sheet.pdf; 08-21-18 Status of Federal Lead Strategy.pdf

Hi Helena,

I have not yet heard from you regarding your thoughts on the timeline I proposed (see message below). I think it would be best to have an agreed-upon timeline for the meeting with the Acting Deputy Administrator. What feedback do you have for me on our proposed timeline (realizing, of course, that in the interim the August 31 proposed date to send to OMB has passed)?
Also, do you have any feedback on the draft slides that Michael Firestone prepared?
Please let me know.

Best,

Ruth

From: Etzel, Ruth
Sent: Thursday, August 23, 2018 8:18 AM
To: Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>
Subject: Request for an opportunity to brief the Acting Deputy Administrator

Hi Helena,

As you may recall, I mentioned that I thought we should have a shorter version of the Draft Federal Strategy that would be easier for decisionmakers to digest. I have attached it here for your review. We would be pleased to have an opportunity to do a briefing for the Acting Deputy Administrator as soon as it can be arranged. Draft Briefing slides are attached for your review. Michael Firestone has completed the spreadsheet indicating how each of the comments received during the OMB review was handled. It is attached for your review as well.

Although we are behind schedule on the proposed re-submission to OMB, we propose the following new timeline for your consideration:

Finalizing the Federal Strategy to Reduce Childhood Lead Exposures and Associated Health Impacts

- Aug 31: revised strategy to OMB for "unofficial" review
- Sept 7: OMB sends for 2nd round LRM review
- Sept 20: Task Force Senior Steering Committee meeting
- Sept 24: Final edits based on LRM review
- Oct 1: reformatting by OPA for public release
- Oct 22: public release?

Please let me know your thoughts on this new timeline.

Best,

Ruth

Ruth A. Etzel, MD, PhD
Director
Office of Children's Health Protection
U.S. Environmental Protection Agency
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Washington, DC 20460
Phone: 202-564-2188

Message

From: Arcaute, Francisco [Arcaute.Francisco@epa.gov]
Sent: 10/15/2018 12:50:39 PM
To: Bassler, Rachel [Bassler.Rachel@epa.gov]; Lippert, Allison [lippert.allison@epa.gov]; Kaplan, Robert [kaplan.robert@epa.gov]; Ross, Anthony [ross.anthony@epa.gov]; Durno, Mark [durno.mark@epa.gov]; Russell, Diane [russell.diane@epa.gov]; Korleski, Christopher [korleski.christopher@epa.gov]; Shoven, Heather [shoven.heather@epa.gov]; Poy, Thomas [poy.thomas@epa.gov]; Deltoral, Miguel [deltoral.miguel@epa.gov]; Marquardt, Steve [marquardt.steve@epa.gov]; Baltazar, Debbie [baltazar.debbie@epa.gov]; Lupton, Jane [lupton.jane@epa.gov]; Kelley, Jeff [kelley.jeff@epa.gov]; Nelson, Leverett [nelson.leverett@epa.gov]; Glowacki, Joanna [glowacki.joanna@epa.gov]; Bair, Rita [bair.rita@epa.gov]; Porter, Andrea [porter.andrea@epa.gov]; Bosscher, Valerie [bosscher.valerie@epa.gov]; Holst, Linda [holst.linda@epa.gov]; Deamer, Eileen [deamer.eileen@epa.gov]; Rowan, Anne [rowan.anne@epa.gov]; Thompson, Robert L. [thompson.robertl@epa.gov]; Dee, Rhiannon [dee.Rhiannon@epa.gov]; Bucci, Anthony [bucci.anthony@epa.gov]; Stepp, Cathy [stepp.cathy@epa.gov]; Thiede, Kurt [thiede.kurt@epa.gov]; Payne, James [payne.james@epa.gov]
CC: Speth, Thomas [Speth.Thomas@epa.gov]; Pressman, Jonathan [Pressman.Jonathan@epa.gov]; Lytle, Darren [Lytle.Darren@epa.gov]; Schock, Michael [Schock.Michael@epa.gov]; Grevatt, Peter [Grevatt.Peter@epa.gov]; Grantham, Nancy [Grantham.Nancy@epa.gov]; Pollins, Mark [Pollins.Mark@epa.gov]; Denton, Loren [Denton.Loren@epa.gov]; Darman, Leslie [Darman.Leslie@epa.gov]; Viveiros, Edward [Viveiros.Edward@epa.gov]; Kempic, Jeffrey [Kempic.Jeffrey@epa.gov]; Bendik, Kaitlyn [bendik.kaitlyn@epa.gov]; Reshkin, Karen [Reshkin.Karen@epa.gov]; Singer, Joshua [Singer.Joshua@epa.gov]; Pallesen, Reginald A. [pallesen.reginald@epa.gov]
Subject: Flint clips, October 15, 2018

Flint Clips
US EPA Region 5 – prepared by the Office of Public Affairs
Flint clips, October 15, 2018

CBS News **Sidelined children's health official says EPA inaction means "kids are disposable"**

https://www.cbsnews.com/news/epa-childrens-health-official-ruth-etzel-epa-kids-disposable/

https://wdef.com/2018/10/15/sidelined-health-official-says-epa-inaction-means-kids-are-disposable/

CBS News October 15, 2018, 7:45 AM

Sidelined children's health official says EPA inaction means "kids are disposable"

Making sure children are protected from environmental toxins has been Dr. Ruth Etzel's job at the Environmental Protection Agency. She's the agency's top pediatric expert – the author of textbooks and policy handbooks on children's environmental health. As director of the Office of Children's Health Protection (OCHP), it was her job to determine the impacts of regulations on children.

"I often think of the Office of Children's Health as the conscience of EPA, because, you know, we're kind of nagging at them: 'Is this okay for children? Are you sure this is okay for children?'" she told correspondent Anna Werner.

But from the beginning of the Trump administration, Dr. Etzel says it seemed those above her no longer wanted her advice. "Our message is no longer welcome. The message that children are not little adults and they need special protections is not welcome," she said.

Her monthly meetings to advise the EPA administrator were abruptly halted.

"So, you had no one-on-one meetings with Scott Pruitt, and you had no one-on-one meetings with Andrew Wheeler? Not one?" asked Werner.

"Not one."

And, she says, a national strategy to remove lead from children's environments – launched after the Flint, Michigan water crisis – stalled, with one official brought in by the new administration telling her that anything involving new regulation "wouldn't fly."

"My sense is that the government has absolutely no intention of taking any action toward seriously changing lead in children's environments," Dr. Etzel said.

Werner asked, "What does that mean for the kids?"

"It basically means that our kids will continue to be poisoned," Dr. Etzel replied. "It basically means that kids are disposable, they don't matter."

But through it all, she says, she kept pushing, until about three weeks ago, when an official came into her office: "My boss, who's the deputy chief of staff, walked in and handed me a piece of paper and said, 'I'm putting you on administrative leave.' And I almost fell off of my chair. I said, 'What's this about?' And she wouldn't say."

"Did you have any idea what was happening or why it was happening?" Werner asked.

"None whatsoever."

"Did you have any warning?"

"No. No. Nothing."

Health and environmental experts who know Dr. Etzel were shocked and stunned over her being put on leave. In a letter to EPA, over 120 environmental and health organizations express their great concern, saying "by placing Dr. Etzel on leave, the EPA has sent a signal that children's health is not a priority for the agency."

So, at a meeting last week, Werner approached acting deputy chief of staff Helena Wooden-Aguilar, the person Dr. Etzel says came into her office that day.

"Why was she not told the reasons why she was put on leave?" Werner asked.

"Unfortunately, I can't comment on that," Wooden-Aguilar responded.

So, Werner asked her boss, chief of operations Henry Darwin, the man right under administrator Andrew Wheeler.

"So, it's really inappropriate for me to talk about any personnel-related issues," Darwin said.

"Okay, but why is Dr. Etzel on administrative leave?"

"Like I just said, it's very inappropriate for me to talk about personnel issues."

"But shouldn't she have been told *why* she was put on administrative leave?"

"You want me to say it again? I really can't comment on personnel-related issues," Darwin said.

As for Dr. Etzel? After three weeks on paid leave, she says it's time to speak out.

"This is totally wrong, and the only people that I really report to are mothers and fathers and communities in the United States," Dr. Etzel said. "And if EPA won't let me tell about how children are being poisoned, I'll just tell the mothers and fathers directly. I have that right, whether or not EPA wants me on their staff."

Werner asked, "What if they come up later and say, 'Well, you did these things wrong?"

"If I did, then I'll say, 'Okay.' If I didn't, then I'll say I didn't. You know? But I don't know what the allegation is, so it's very hard to know, but basically I'm a straight shooter, I'm transparent. So if I make a mistake, I own it."

The EPA referred CBS News to a statement from chief of staff Ryan Jackson, who said that Dr. Etzel "was placed on leave to give the agency the opportunity to review allegations about the director's leadership of the office."

But Dr. Etzel tells us she has never been made aware of any allegations.

The EPA insists it is committed to protecting children and maintains that Dr. Etzel's removal won't affect its work.

In a statement to CBS News, EPA Chief of Staff Ryan Jackson said,

"Although EPA does not customarily comment on personnel matters, due to circulating misinformation, the Director of EPA's Office of Children's Health Protection was placed on leave to give the Agency the opportunity to review allegations about the Director's leadership of the office."

A spokesperson for the Office of Children's Heath Protection also issued a statement:

"Children's health is and has always been a top priority for the Trump Administration and the EPA in particular is focused on reducing lead exposure in schools, providing funds for a cleaner school bus fleet, and cleaning up toxic sites so that children have safe environments to learn and play. These are just a few of the dozens of objectives the EPA's Office of Children's Health will continue work on during this administration."

The EPA also provided press releases (1, 2, 3) asserting the agency's commitment to protecting children's health.

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https://wdef.com/2018/10/15/sidelined-health-official-says-epa-inaction-means-kids-are-disposable/

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US EPA R5 press office
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Message

From: Drinkard, Andrea [Drinkard.Andrea@epa.gov]
Sent: 10/12/2018 5:02:57 PM
To: Richardson, RobinH [Richardson.RobinH@epa.gov]; Grantham, Nancy [Grantham.Nancy@epa.gov]
Subject: FW: article

From: Eisenberg, Mindy
Sent: Friday, October 12, 2018 12:52 PM
To: Drinkard, Andrea <Drinkard.Andrea@epa.gov>
Subject: article

Lee from the meeting with the Big 10

Mindy Eisenberg
Associate Director, Oceans, Wetlands & Communities Division
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From: Bravo, Antonio
Sent: Friday, October 12, 2018 12:49 PM
To: OW-OWOW-EVERYONE <OWOWOWEVERYONE@epa.gov>
Subject: FYI Only: Water articles in the Press

EPA's CWA Rule Faces Uncertain Future Despite Wheeler's '30-Day' Target

October 11, 2018
EPA's replacement Clean Water Act (CWA) jurisdiction standard faces a highly uncertain future, with agency officials privately warning stakeholders that there is no clear timeline for proposing it because the rule is still under White House review -- despite Acting Administrator Andrew Wheeler targeting the rule's release within 30 days.

Sources with industry, environmental groups, local government associations and other stakeholders say EPA and the Army Corps of Engineers, which are jointly crafting the CWA rule, are yet to reveal any details on the substance of the rule, even to industry and conservative groups that support the Trump administration's plan to scrap the Obama-era standard and replace it with a narrower test.

“They've been very tight-lipped, which I expect them to be,” an industry source tells *Inside EPA*, though a second source says the White House has some unspecified “issues” with the proposal as submitted for review by EPA and the Corps.

A source with knowledge of the process surrounding the rulemaking says officials have been open in private meetings about the lack of a solid timeline for the rule -- despite Wheeler's statement to an Oct. 2 business roundtable that "we hope to have something out over the next 30 days or so for a proposal."

That source says EPA is telling stakeholders that it is "very uncertain" when the White House Office of Management and Budget (OMB) will finish its review of the draft proposed rule, which is a necessary step before publishing the formal proposal.

Former EPA Administrator Scott Pruitt sent the proposal for OMB review on June 15, and the rule would replace the Obama-era CWA jurisdiction standard. The regulation is expected to be much narrower in scope than the 2015 rule, which Pruitt and others have said exceeded Congress' intent in crafting the water law.
During an Oct. 10 meeting with groups representing a wide array of state and local governments and regulatory agencies, EPA deputy water chief Lee Forsgren reiterated those concerns, the informed source says.

"What they said is they have no idea on timing, regardless of what EPA is saying. . . . [Forsgren] said it's still at OMB and they're working out some issues," the source says.
But what "issues" OMB has with the rule are unclear.

The informed source says all that is known among the stakeholder community is that "OMB had some challenges with the rule, and they've been going back and forth with the agency."
Moreover, the source continues, even if OMB is ready to release the rule by late October or early November, political appointees could hold it back until after the Nov. 6 midterm elections as a strategic move. "I've heard some conflicting things. We've heard what Wheeler said, but it was also indicated that nothing will come out until after the election."

The industry source says there is likely pressure both the release the rule quickly and to delay it until after Election Day. "Any reason I can come up with for why they should do it before, I can come up with a reason they should do it after."

Jurisdiction Standard
While there have been no public signals of what concerns OMB has with the CWA rule, the office has previously clashed with EPA on the justifications for its regulatory rollbacks -- such as when it held up an air rule governing production of high-emitting "glider" trucks over concerns that the agency had not completed a regulatory impact analysis to assess the costs and benefits of repealing the Obama-era standard.

Observers, particularly critics of the Trump administration, have warned that EPA and the Corps face a high bar to justify a narrow CWA rule, especially if they opt to use the late Justice Antonin Scalia's jurisdiction test -- as President Donald Trump told them to consider doing in a February 2017

executive order that broadly directed the agencies to begin a process of repealing and replacing the Obama-era rule.

“It would require rejecting the holding of a majority of the Supreme Court” for EPA and the Corps to adopt a rule based on Scalia's preferred standard, an environmentalist attorney says. Scalia's plurality opinion in the fractured 2006 case *Rapanos, et ux., et al., v. United States* would limit CWA jurisdiction to “relatively permanent” waterbodies with a “continuous surface connection” to navigable waters.

However, that opinion garnered only four votes, with now-retired Justice Anthony Kennedy authoring a concurring opinion that rejected Scalia's logic, as did the court's four liberals in dissent.

Scalia's test is much more restrictive than the competing standard Kennedy espoused in his concurring *Rapanos* opinion, which relies on a “significant nexus” between waterbodies. The Obama administration used that test as the foundation for its 2015 CWA rule, but industry groups, GOP-led states and other opponents of broad CWA jurisdiction challenged it as unlawfully broad and unconstitutionally vague.

Following Trump's order starting a repeal-and-replace process, supporters of the Scalia test have called for regulators to adopt either the plurality opinion or a version of the standard in order to make the rule “clear” and easily administrable, as opposed to the significant-nexus findings that rely on hydrological studies and other involved scientific analysis.
Wheeler's comments from Oct. 2 signaled that the agencies are following those requests to some degree, since he said the proposal under development “will be clear and straightforward and easy for land-owners to understand."

The industry source says those comments seem to be “a good sign” that the rule will be modeled on Scalia's standard, but that it is too soon to predict with any certainty what the rule will look like.

“I guess that's what they're going toward -- I don't even know if that's what they're going to do. But we think it would be a good idea -- we think it may be an easier test to develop a rule around than the idea of a significant nexus."

Similarly, the informed source says “We were told that it would likely echo Scalia's decision,” but with no details on how the new rule will treat any particular type of waterbody.
The environmental source says it is doubtful that the new rule will be accompanied by an intensive scientific process that would mirror the Obama administration's “connectivity report” that aimed to support its jurisdiction policy by analyzing the relationship between upstream and downstream waters -- and predicts that the lack of such a study will hurt the replacement standard in court.

"It would be very surprising to me if this proposal were accompanied by some new scientific product or findings. For basically the last two years, the one consistent thing coming out of the Trump

administration about this set of issues is that they're not trying to wrestle with the scientific record, because that's a fight they'll lose," that source says.

Legal Challenges

The formal proposal is all but certain to set off immediate threats of litigation from environmental groups, Democratic states, conservation associations and others that support the 2015 rule.

Those challenges will add to the already-complex web of litigation that still surrounds the Obama-era policy -- especially since the Supreme Court has held that challenges to the scope of the CWA can be filed in many district courts simultaneously, rather than being centralized in a single case.

Currently over a dozen cases are pending in district court over the Obama administration's rule, including challenges to the jurisdictional standard itself and to EPA and the Corps' delay on enforcing it, which they enacted earlier this year to avoid implementation "confusion" during their repeal-and-replace process.

Most recently, environmentalists and the Department of Justice (DOJ) on Oct. 10 filed a suite of new briefs opposing 11 GOP states' challenge pending in the U.S. District Court for the Southern District of Georgia.

There, environmental groups are defending the rule on its substance while DOJ is reiterating its ongoing argument that says there were no flaws in the rulemaking process, but that it would be improper for the government to take any position on the substance of the 2015 standard during the repeal-and-replace effort.

Meanwhile, a judge hearing environmentalists' and Democratic states' challenges to the delay rule in the southern district of New York issued an order on the same day that sets oral argument for Oct. 25. Another district judge, in South Carolina, has already suspended the delay nationwide -- bringing the rule back into effect for much of the country, but not in 28 states where still other district judges have issued preliminary injunctions against its enforcement.

So far none of those cases has even reached appellate court, and most observers expect the Supreme Court to ultimately decide the issue, meaning the process will take even longer.

"There is a concern" that a future administration will scrap the planned Trump rule before the next round of litigation can run its course, the industry source says. "On the 2015 rule, we don't have one decision on the merits yet. You kind of think that this process will take close to the same timeframe, which is not efficient." -- *David LaRoss* (dlaross@iwpnews.com)

WaterWorld

EPA AWARDS NEARLY $19M TO VERMONT CLEAN WATER PROJECTS

BOSTON, MA, -- The U.S. Environmental Protection Agency (EPA) announced the State of Vermont was awarded a total of $18,966,000 in Clean Water and Drinking Water State Revolving Loan Fund (SRF) grants to

finance community-based water infrastructure projects, such as upgrades to municipal sewage plants and public drinking water systems.

"Communities across Vermont will enjoy cleaner water and make important infrastructure upgrades thanks to this funding," said EPA New England Regional Administrator Alexandra Dunn. "These low-cost loans further EPA's commitment to ensuring American communities have access to clean water, safe drinking water and the infrastructure necessary to support local needs."

"As we work together to ensure clean water across Vermont, I appreciate that all Vermont's 251 towns and cities will be eligible to apply for these Drinking Water and Clean Water SRF funds," said Governor Phil Scott. "These loans are especially important to our smallest communities, helping pay for crucial infrastructure upgrades, and can be used to enhance drinking and wastewater treatment facilities, keep pollution in check, support green infrastructure projects and more."

The total amount of funding came through separate grants to the Vermont Department of Environmental Conservation (DEC) in the amount of $7,859,000 for its Clean Water SRF program and for $11,107,000 for its Drinking Water SRF program. With the funds awarded to the state, DEC will fund a series of long- and short-term community-based projects that address high priority water quality and health based concerns. In partnership with the Vermont Municipal Bond Bank, the DEC administers the State Revolving Fund programs at the state level. DEC will oversee the engineering and construction aspects of the Clean Water and Drinking Water SRF programs, as well as the individual projects funded by it, while the bond bank executes the loan agreements for both programs.

Under the Clean Water and Drinking Water SRF programs, EPA provides grants to all 50 states plus Puerto Rico to capitalize state water loan programs. States contribute an additional 20 percent to match federal grants. EPA also provides direct grant funding for the District of Columbia, U.S. Virgin Islands, American Samoa, Guam, and the Commonwealth of Northern Marianas. Since 1987, the SRFs have provided more than $160 billion in financial assistance to 38,000 water quality infrastructure projects and 14,000 drinking water projects.

Under the Drinking Water SRF, states provide various types of assistance, including financing to improving drinking water treatment, fixing leaky or old pipes, improving source of water supply, and replacing or constructing finished water storage tanks. Clean Water SRF programs provide loans to construct municipal wastewater facilities, control nonpoint sources of pollution, build decentralized wastewater treatment systems, create green infrastructure projects and protect estuaries.

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Environmentalists Call For Broader EPA PFAS Policies Under Several Laws

Entire Article: https://insideepa.com/daily-news/environmentalists-call-broader-epa-pfas-policies-under-several-laws

Environmentalists are calling on EPA to broaden its actions to stem the environmental impacts of the class of non-stick chemicals known as per- and polyfluoroalkyl substances (PFAS), including regulating PFAS under multiple environmental laws and launching new testing and monitoring of the chemicals in drinking water systems.

They are also calling for EPA to develop more analytical detection methods for a wider swath of the thousands of chemicals in the class, and to provide additional resources to states. Some states have been leading efforts to address

the chemicals through drinking water advisories and levels, at times setting stricter levels than EPA has established for two of the most common PFAS -- perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS).

Chemical manufacturers, state drinking water regulators and water utilities, among others, also submitted comments to EPA on suggestions for addressing PFAS. And drinking water utilities this summer submitted comments warning EPA not to leap ahead with regulatory actions on PFAS before addressing significant gaps in detection and treatment, health effects and lab capacity.

EPA took comments through Sept. 28 on its PFAS efforts, in particular soliciting remarks on efforts it is undertaking to characterize risks from the chemicals and develop monitoring and treatment techniques, as well as asking for advice on near-term actions to address state and local challenges beyond those EPA has said it is moving forward on, and on risk communication strategies to address public concerns over the chemicals.

PFAS, used in a host of consumer and industrial applications including in firefighting foam, is a class of thousands of emerging contaminants that is increasingly drawing concerns due to its presence in drinking water systems. They have been linked to several adverse health effects, including certain cancers, ulcerative colitis and thyroid disease.

While EPA is considering several actions to address PFAS, including an enforceable drinking water standard, known as a maximum contaminant level (MCL), and listing chemicals as "hazardous substances" under the Superfund statute or other laws, EPA's top official leading efforts to address the chemicals recently told lawmakers that if the agency does decide to move forward on such regulations, it would take years to complete.

In various comments submitted to the agency, a multitude of environmental groups are urging EPA to adopt a number of measures -- both in broadening drinking water testing -- and in other areas of law.

"EPA's current proposed actions are entirely inadequate," the Southern Environmental Law Center (SELC) says in Sept. 28 comments. In particular, the group says, "(1) they only consider two of the thousands of existing PFAS, allowing companies to continue using the regulatory loopholes that they have used for decades, and (2) they do nothing to stop additional toxic PFAS from spewing into our air, soil, and water, and remaining there for decades."

On the drinking water front, environmental groups allege EPA's past Unregulated Contaminant Monitoring Rule 3 (UCMR3) was inadequate in capturing the extent of PFAS contamination in drinking water systems. In its comments, Environmental Working Group (EWG) calls for testing all public water systems, capturing all PFAS chemicals for which analytical detection methods exist, rather than just six compounds, and using lower reporting levels.

The Wichita Eagle

Man lied about quality of Garden Plain's drinking water to EPA, indictment alleges

Garden Plain's former water system operator is in trouble for allegedly lying to the Environmental Protection Agency about where got tap water samples used to test the quality of the city's drinking water.

An indictment filed Thursday in federal court says Arthur Wolfe, 62, certified bacteriological reports that said he'd collected tap water from four homes in Garden Plain last winter, when he really got it all from 411 Loomis — the City of Garden Plain's shop.

Samples are typically taken from more than one location to make sure bacteria is not seeping into the water lines.

Garden Plain, which has around 900 residents, is required to collect at least two water samples a month for testing.

According to the latest EPA consumer confidence report, there were no contaminants found in Garden Plain in 2017 and the drinking water is safe. The city's water comes from three ground water wells, the report says.

Wolfe lied about the addresses where the water samples were taken on Dec. 22, 2017, and on Feb. 6, 2018, the indictment alleges.

Wolfe, who lives in Norwich, is charged with two counts of making false statements to the EPA when he knew the information was false or fraudulent.

He faces up to five years in federal prison and up to $250,000 in fines for each count if he's convicted, McAllister said in the news release.

EIP weighs options for stricter slaughterhouse ELG push

October 11, 2018

The Environmental Integrity Project (EIP) is weighing its options for pushing EPA to update its 2004 effluent limitation guidelines (ELG) for slaughterhouses, following an analysis of discharge data that shows three-quarters of the meat processing plants analyzes violated their permit limits.

An Oct. 11 EIP report, "Water Pollution from Slaughterhouses," finds that for 98 large meat processing plants that directly discharge into waterways, 74 of them violated at least one of the pollution limits in their Clean Water Act permits at least once between Jan. 1, 2016, and June 30, 2018. One-third of the plants, or 32 plants, had 10 or more violations in that time period, and some plants were chronic violators.

But regulators rarely recover more than the maximum penalty for a single day of noncompliance, and plants with no violations were more likely to have weak permits that allow them to discharge far more pollution, the report says. At least 18 slaughterhouses among those studied racked up more than 100 violations per day from 2016 to 2018. But so far, eight of those 18 have not paid any fines at all during this time period.

Among the report's recommendations are for EPA to update the 2004 ELG standards with tighter limits for nitrogen and other pollutants and better monitoring of discharges.

EIP Executive Director Eric Schaeffer told reporters Oct. 11 that the Trump administration has probably not looked at the meat processing industry to see if they want to make any changes to the 2004 ELG, but the agency may be required to do so.

"We'll think about our options" for prompting change, he said.

The report also calls on states to tighten up discharge permit limits for impaired waters and prohibit "irresponsible disposal methods, such as spraying waste onto farm fields that are close to homes," and for EPA to take enforcement action if states are unwilling or unable to do so.

The data suggest that the 2004 standards are too lax and out of date, the report says, noting that it allows slaughterhouses to dump wastes into streams and lakes with more than two and a half times the concentration of total nitrogen found in raw household sewage. At the same time, the discharge monitoring reports show that slaughterhouse wastewater can be made much cleaner.

ELGs are technology-based limits that are intended to increasingly elevate industry performance by matching the performance of the best plants, according to EPA.

Although performance varies widely, the median plant examined in the report discharged an average of 331 pounds of nitrogen -- about as much as the amount in raw sewage from a town of 14,000 people -- along with about 33 pounds of biochemical oxygen demand (BOD) per day in 2017. On the high end, the JBS Beardstown plant in Beardstown, IL, discharges 1,848 pounds daily of nitrogen, an amount EIP says is equal to the amount contained in raw sewage from a city of 79,000.

But the cleanest plants ranged between 10 to 30 pounds of nitrogen and under five pounds of BOD per day, even after controlling for flow rates, the report says.

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an online news service from the publishers of Inside EPA

EPA Plans To Rewrite Two Contested CWA Permits, Limiting EAB Petitions

EPA is agreeing to rewrite key elements in a pair of contested Clean Water Act (CWA) discharge permits in response to environmental groups' petitions for the agency Environmental Appeals Board (EAB) to find them unlawfully lenient, reducing the chance of a ruling from the board that would limit regulators' permit authority going forward.

In a pair of new EAB filings EPA announces that it will withdraw and reconsider provisions in the CWA National Pollutant Discharge Elimination System (NPDES) permits at issue in the cases *In re: City of Harrison Wastewater Treatment Plant* and *In re: Arizona Public Service Company (APS)*, and urges the board to dismiss the challenges to those provisions as moot.

"[T]he Region is withdrawing specific permit provisions and will be revising those provisions, as appropriate, in a new draft permit," EPA Region 10 writes in its Oct. 10 filing for the APS case. Region 10 covers the states of Alaska, Idaho, Oregon and Washington.

City of Harrison deals with limits on dissolved oxygen and sediment in an Idaho wastewater treatment plant's discharges, while *APS* is the latest installment in the long-running fight over CWA and other limits on the Four Corners Power Plant, which sits on Navajo Nation land near Fruitland, NM.

EPA says in its filings that it is withdrawing and reconsidering all of the oxygen and sediment provisions at issue in *City of Harrison* meaning that petition will likely be dismissed entirely.

Had the case gone forward, it would have tested EPA's flexibility to apply Idaho's three-part test for an exception to the state's mandates for treatment plants to limit both pollutants.

By contrast, the agency's Oct. 9 *APS* filing says planned changes to the Four Corners permit are more limited, teeing up continued proceedings in that case.

Environmental groups challenging the newly updated CWA permit for Four Corners say the agency is refusing to limit discharges into the nearby Morgan Lake, which it has determined is not a "water of the United States" subject to federal jurisdiction. That decision in turn "implicates virtually all conditions of the Permit," the groups' petition says.

How to define the CWA's reach is a complicated issue that is the subject of widespread litigation, with forthcoming rules to repeal and replace the Obama-era jurisdictional standard likely to spur even more court challenges.

EPA's description of its planned modifications to the Four Corners NPDES permit do not explicitly address the status of Lake Morgan. Instead, it says only that it is reconsidering effluent limits for one of the plant's designated outfalls, in addition to cooling water intake mandates, and asks EAB to dismiss only the elements of the petition that bear on those provisions.

Thus, the agency says in its brief that it expects the EAB case to continue, and asks the board to set a new briefing deadline of April 19, 2019 to allow for environmentalists to review the planned changes and add them to the petition if needed.

But "The Petitioners have indicated that they are opposed to the proposed briefing schedule," the filing notes.

Politico: Apprehension meets EPA reorg

https://www.politico.com/newsletters/morning-energy/2018/10/11/apprehension-meets-epa-reorg-369572
By KELSEY TAMBORRINO 10/11/2018 10:00 AM EDT
With help from Anthony Adragna, Eric Wolff, Darius Dixon and Annie Snider

Editor's Note: This edition of Free Morning Energy is published weekdays at 10 a.m. POLITICO Pro Energy subscribers hold exclusive early access to the newsletter each morning at 6 a.m. To learn more about POLITICO Pro's comprehensive policy intelligence coverage, policy tools and services, click here.

APPREHENSION AHEAD: The Trump administration's plan to overall the makeup of its EPA — an effort sought to streamline the agency and press restart on its priorities — is being met with a sizable dose of skepticism, and even fear, among green groups and career employees. So far, as Pro's Annie Snider and Alex Guillén report this morning, the biggest changes have been to the 10 regional offices with a structure mimicking EPA headquarters in mind. And, overseeing the overall reorganization push is Chief of Operations Henry Darwin, who told POLITICO in a recent interview that "there is no denying the fact that EPA is not going to be getting bigger anytime soon."

Privately, many state regulators and even some EPA staffers say that some sort of bureaucratic overhaul is long overdue. But there's sufficient worry about the motives of an administration that prioritizes the well-being of coal and oil companies while dismissing the environmental problems like climate change. Congress would have to sign off on most changes, and last week Darwin told staff that the plan would head to the Hill soon.

"Reorganizations in and of themselves are not bad," said Joe Edgell, president of NTEU Chapter 280. "But it's important that the reorganization be geared toward improving our protection of human health and the environment, and at this point, we're not sure that all the changes we've heard about are designed with that goal in mind."

Some of the most significant changes may come at EPA's enforcement office, where Darwin says he wants to change how success is measured. Instead of focusing on how much the agency collects in fines, Darwin wants to prioritize quickly correcting violations of anti-pollution laws — an approach critics worry is too lax. "If corporations think the worst that can happen when they're caught is that they'll be hustled back into compliance, what's the incentive to stay in compliance in the first place?" asked Eric Schaeffer, executive director of the Environmental Integrity Project and a former civil enforcement chief at EPA. Read the story here.

IT'S THURSDAY MORNING! I'm your host, Kelsey Tamborrino. Cheniere's Khary Cauthen was the first to correctly ID Warren Harding as the only president to appoint a former president to the Supreme Court — he chose William Taft. For today: Another presidential trivia question: Who is the only president with an MBA? Send your tips, energy gossip and comments to ktamborrino@politico.com, or follow us on Twitter @kelseytam, @Morning_Energy and @POLITICOPro.

YOUR 2018 MIDTERMS HQ: The countdown is on. Policy professionals know the 2018 midterms represent more than keeping track of winners and losers. The outcome of high-stake contests could dramatically alter the course of policymaking across the country. Go beyond election night with POLITICO Pro's 2018 Midterms HQ. Read More.

POLITICO IS PARTNERING WITH THE MILKEN INSTITUTE to bring a special edition of the POLITICO Pulse newsletter to the Milken Institute Future of Health Summit. Written by Dan Diamond, the newsletter will take readers inside one of the most influential gatherings of global health industry leaders and innovators as they tackle today's most pressing health challenges. The newsletter will run Oct. 23-24. Sign up today to begin receiving exclusive coverage on Day One of the summit.

BEYOND THE BELTWAY

MICHAEL CONTINUES DESTRUCTIVE PATH: Hurricane Michael made landfall Wednesday with 150-plus mph winds, and is expected to continue to move inland today. Duke Energy projected Wednesday that the Category 4 storm could cause anywhere from 300,000 to 500,000 power outages this week in North Carolina and South Carolina, which are still reeling from last month's Hurricane Florence.

Approximately 42 percent of the current oil production and roughly 31 percent of the natural gas production in the Gulf of Mexico had been shut-in as of 11 a.m. Wednesday, the U.S. Bureau of Safety and Environmental Enforcement said. The agency also said four of the 17 dynamically positioned rigs operating in the Gulf were moved out of the storm's path as a precaution. As of 6 p.m. Wednesday, about 388,000 customers in Florida, 46,000 customers in Georgia, and 45,000 customers in Alabama reported electricity outages, according to EIA data, with those numbers expected to rise.

MONIZ STEPS OFF SAUDI PROJECT AMID JOURNALIST PROBE: The Trump administration is facing pressure to investigate the fate of Saudi journalist Jamal Khashoggi, a U.S. resident who hasn't been seen since he entered a Saudi consulate in Istanbul more than a week ago. The concern over Khashoggi, a Washington Post columnist, also led former Energy Secretary Ernest Moniz to drop his membership from the board of NEOM, a "smart city" project in the kingdom. "Given current events, I am suspending my participation on the NEOM board," Moniz said in a statement Wednesday, first reported by Axios. "Going forward, my engagement with the advisory board will depend on learning all the facts about Jamal Khashoggi's disappearance over the coming days and weeks."

It's worth noting that the Trump administration has a couple of important asks in front of the Saudis: It's counting on the kingdom to maintain steady supplies of crude oil on the global market in order to temper price spikes once the White House reimposes sanctions on Iran; and Energy Secretary Rick Perry has been pressing to secure a civil nuclear trade agreement with Saudi Arabia. DOE declined to comment on whether Khashoggi's situation had affected its initiatives.

'Sweep it under the rug': POLITICO's Nahal Toosi takes a look at the growing worries that the White House will not confront the Saudis here.

THE WHITE HOUSE

REPORT: ZINKE CONSIDERED FOR U.N.: Interior Secretary Ryan Zinke is among the names being considered to replace outgoing U.N. Ambassador Nikki Haley, who resigned this week, according to a Fox News report based on two senior officials within the Trump administration. As POLITICO previously reported, Dina Powell, a Goldman Sachs executive and former deputy national security adviser, is the top candidate to replace Haley, but the White House has signaled it's open to others. Fox News reported that President Donald Trump was set to meet with Zinke on Wednesday about the U.N. role and other issues. In the Oval Office on Wednesday, Trump told reporters, "We like Dina" but are also "looking at others" for the role. For what it's worth, Interior told ME it doesn't comment "on conversations that may or may not have occurred between the secretary and the president."

Not a fan: Alaska Republican Sen. Lisa Murkowski seemed cool to the prospect of Zinke leaving to become U.N. ambassador even as she expressed confidence in Deputy Secretary David Bernhardt leading the agency. "If you now have the secretary leave, you kind of have to start all over," she told reporters. But she praised Bernhardt for "working round the clock" and said "he's doing a good job there."

ON THE HILL

E15 OPPONENTS HAVE AN ALLY IN KAVANAUGH: Trump's promise to boost ethanol sales will have to survive an inevitable court challenge once EPA formally issues an E15 waiver sometime next spring, and the oil industry does not think the agency has the legal authority it needs to follow through, Pro's Eric Wolff reported Wednesday. On that front, they appear to be in agreement with newly sworn-in Supreme Court Justice Brett Kavanaugh, who offered his views in a 2012 case over a partial waiver. The case was dismissed on procedural grounds, but Kavanaugh wrote a dissenting opinion arguing that EPA was misinterpreting the Clean Air Act. "On the merits, I conclude that the E15 waiver violates the statute," he wrote in Grocery Manufacturers Association v. EPA. "The waiver might be good policy; if so, Congress has the power to enact a new law permitting E15. But under the statute as currently written, EPA lacks authority for the waiver."

Back to the Hill? While legislative action has largely fizzled this year around reforming the Renewable Fuel Standard, oil refiners' allies on Capitol Hill say they are not giving up the fight. "We're still talking," Sen. John Cornyn (R-Texas) told reporters Wednesday. "We think we need a permanent solution and I also think there's a high likelihood there will be litigation, so we think a legislative solution would be more appropriate." A spokesman for Rep. John Shimkus, who has been leading the House effort on reform, said Shimkus hopes to get a draft bill out later this year.

NOT AFRAID: Murkowski's GOP colleagues have her back against any retaliation over her vote against Kavanaugh, and she said she isn't afraid of Trump's threat that she will "never recover" from that vote. "There are consequences to every vote that we take and I accept that, but I also cannot be driven out of fear of a tweet, of a reprimand, of a cross word," she told reporters. She smiled when asked if she'll run again — "I don't have to make that decision for four years" — but quickly added: "I know Alaska's political terrain better than [Trump] does."

PIPE DREAMS: Congress' approval this week of the America's Water Infrastructure Act of 2018 S. 3021 (115) provides some of the most significant updates to the country's drinking water management in two decades, but it's unlikely to fix some of the nation's most pressing water problems on its own. The bill will give lawmakers a major achievement to tout back home ahead of midterms, Annie reports, especially in districts grappling with drinking water problems, but some argue the bill is just a step in the right direction on solving water infrastructure problems.

DOJ NOMINEE MOVES CLOSER: The Senate will vote at 12:10 p.m. on the nomination of Jeffrey Clark to be assistant attorney general in charge of the Justice Department's Environment and Natural Resources Division, following a 53-44 cloture vote on Wednesday. Trump first nominated Clark, who is backed by industry groups, in June 2017.

McNAMEE ENDGAME: Republican senators on the Energy and Natural Resources Committee are hoping to swiftly confirm FERC nominee Bernard McNamee before year's end, in an effort to return the commission to full strength, Pro's Anthony Adragna reports. Democrats, meanwhile, warn of a coming battle over the selection, as they remain worried that adding McNamee to FERC will politicize the commission.

NEWS TO ME: Trump suggested aboard Air Force One on Tuesday he'd received "expedited approval" for a Texas pipeline project, but Cornyn told ME he wasn't sure which one the president was referring to even as he suggested more pipeline capacity is needed. "I do know they're flaring off and burning natural gas in the Permian Basin because they don't have the pipeline capacity to send it to market," he said. "I'm not familiar to what he was referring to, but there is a shortage of capacity to be sure."

INSIDE THE AGENCIES

WHEELER HEADS TO CALI: Acting EPA Administrator Andrew Wheeler is in California's Central Valley today, where he'll appear at a press event with Republican Rep. Jeff Denham, who is facing one of the tightest re-election fights in the country. Denham has asked Wheeler to use EPA's authority to overturn a proposal by California's State Water Resources Board that would require more water to be reserved in key rivers for the benefit of endangered fish species and the detriment of farmers who dominate Denham's district.

WHAT'S YOUR PLAN, STAN? Michigan Democrats who were on the frontlines of the Flint lead contamination crisis are pressing EPA to account for the recent dismissal of the head of the agency's Office of Children's Health Protection. In a letter being sent to Wheeler this morning, Sens. Gary Peters and Debbie Stabenow, and Rep. Dan Kildee ask EPA to explain Ruth Etzel's abrupt removal as head of the office and how the office will operate now. "Going forward, we need to ensure we have a strong national infrastructure to prevent a scenario like the Flint water crisis from ever happening again, and the Office of Children's Health Protection is key to this strategy," the lawmakers write. An EPA spokesman has said Etzel was placed on administrative leave while the agency investigates allegations about her leadership of the office.

WHEELER ADDS 5 TO ADVISORY PANEL: Wheeler appointed five new members to the Clean Air Scientific Advisory Committee, which advises the administrator on NAAQS issues: Mark Frampton, of the University of Rochester Medical Center; Sabine Lange, from the Texas Commission on Environmental Quality; Timothy Lewis, of the U.S. Army Corps of Engineers; Corey Masuca, of the Jefferson County Department of Health in Alabama; and Utah Department of Environmental Quality's Steven Packham.

QUICK HITS

— "How Bloomberg embeds green warriors in blue-state governments," RealClear Investigations.

— "Regs chief likely on short list for D.C. Circuit bench," E&E News.

— "More than 1,500 Interior employees removed or reprimanded for harassment, misconduct," The Hill.

— "James Murdoch in line to replace Elon Musk as Tesla chair," Financial Times.

— "Trump administration seeks to deploy earthquake sensors faster," The Wall Street Journal.

— "Toxic red tide could sicken people as Hurricane Michael pushes It ashore," Bloomberg.\

E&E: Wheeler bumps more academics from advisory panel

https://www.eenews.net/greenwire/2018/10/11/stories/1060102327

Sean Reilly- Thursday, October 11, 2018

EPA acting chief Andrew Wheeler yesterday dramatically reshuffled the lineup of a key air quality advisory panel with what he called "highly qualified" new appointees drawn mainly from state and local regulatory agencies.

But in naming five new members to the seven-member Clean Air Scientific Advisory Committee, Wheeler also displaced several academic researchers, prompting accusations that he's trying to influence the outcome of a closely watched review of EPA's air quality standards for particulate matter.

"You don't have the expertise, period," said Chris Zarba, who headed the EPA office that oversaw the committee's work before retiring early this year. Zarba is now part of a network made up largely of former agency employees opposed to the Trump administration's environmental policies.

The committee, usually referred to by its acronym, CASAC, is charged with advising EPA during legally required reviews of the standards for particulate matter, ozone and four other common pollutants targeted by the Clean Air Act. With the appointments announced late yesterday, all seven members have been named by either Wheeler or Scott Pruitt, his predecessor as EPA chief.

The new appointees, culled from the ranks of three dozen nominees:

- Mark Frampton, professor emeritus in medicine, University of Rochester Medical Center's Pulmonary and Critical Care division.
- Sabine Lange, section manager, Texas Commission on Environmental Quality's toxicology division.
- Tim Lewis, supervisory research ecologist, Army Corps of Engineers.
- Corey Masuca, principal air pollution control engineer, Jefferson County (Ala.) Department of Health.
- Steven Packham, inhalation toxicologist, Utah Department of Environmental Quality.
- Four of the five are replacements for members whose terms expired last month; a fifth takes the place of Larry Wolk, another Pruitt appointee who has since left his post as executive director of the Colorado Department of Public Health and Environment for a job in the private sector. The committee's chairman remains Tony Cox, a Colorado consultant named to the post last year whose clients have included industry groups like the American Petroleum Institute.

In the news release announcing the appointments, EPA said the committee "will serve as the body to review key scientific assessments for the ozone and particulate matter" standards. Under a fast-track schedule set earlier this year, both those reviews are set for completion in late 2020.

Among administration critics, the release's wording prompted speculation that EPA is disbanding a separate 24-member panel, made up almost entirely of academic researchers, that is charged with providing additional expertise during the assessment of the particulate matter standards.

As of this morning, however, several panel members said they had not gotten any official notification of such a development, and the list of panel members remained posted on EPA's website. Asked whether the agency is in fact abolishing the panel, EPA spokesman John Konkus in an email repeated the language in the news release.

The new appointments appear to reflect the impact of a Pruitt directive imposed last fall to guide the selection of members for CASAC and other EPA advisory committees.

That directive set a loose goal of expanding the ranks of members who come from state, local and tribal governments. More controversially, it also barred current EPA grant recipients from serving on agency advisory committees. Pruitt also effectively ended a tradition of reappointing first-term CASAC members to a second three-year term. Three of the academic scientists who were not reappointed fell into that category. One of them, Lianne Sheppard, a biostatistics professor at the University of Washington, is a plaintiff in one of three pending lawsuits that challenge the ban on service by grant recipients.

The appointments could also show the influence of EPA deputy air chief Clint Woods. Before going to work for EPA last year, Woods headed the Association of Air Pollution Control Agencies, which mainly represents regulators from the South and West. Lange, Masuca and Packham all work for agencies that are association members.

Asked in an email this morning whether he had weighed in during the selection process, Woods referred the question to Konkus.

"EPA went through the standard vetting process for interested applicants that included input from a range of offices at multiple levels," Konkus wrote.

Think Progress: Wheeler's first big science test shows alignment with Pruitt agenda on EPA board appointments

https://thinkprogress.org/wheeler-science-pruitt-epa-panel-be0a783aa55b/
OCT 11, 2018, 1:54 PM

Acting Environmental Protection Agency (EPA) administrator Andrew Wheeler appears to be continuing in the vein of his predecessor Scott Pruitt, after the official largely opted out of appointing scientists to an advisory panel on air pollution. Instead, Wheeler seemingly favored candidates holding viewpoints in line with the Trump administration.

The EPA announced on Wednesday five new appointees to the Clean Air Scientific Advisory Committee (CASAC), the panel that advises on U.S. National Ambient Air Quality Standards (NAAQS). The advisory committee provides advice on air quality criteria, in addition to adding NAAQS or revising pre-existing standards.

Former EPA administrator Scott Pruitt came under fire for his overhauling of EPA advisory committees, with scientists and green groups accusing the official of stacking the panels with industry insiders rather than field experts. And many are watching to see how Wheeler will handle appointments to those committees, with the acting administrator now in a position to shape EPA science policy.

But while Wheeler has largely moved away from Pruitt's secretive and scandal-ridden image, the official's appointees indicate his approach is likely to be more of the same when it comes to policy.

Independent academic researchers traditionally make up the bulk of appointees to EPA advisory panels, but only one academic scientist made the cut on Wednesday: pulmonologist Mark Frampton, a professor at the University of Rochester Medical Center.

Frampton has conducted research on air pollution, the core issue on which he will be advising. But some of his peers come with more controversial resumes.

EPA's 'secret science' rule faces outpouring of opposition during emotionally-charged hearing
One is Toxicologist Sabine Lange, who works with the Texas Council on Environmental Quality (TCEQ). Lange has historically argued that reducing limitations on ground-level ozone would have no impact on public health. Ground-level ozone, or smog, is linked to asthma aggravation, reduced lung function, and severe respiratory issues.

Lange, however, co-authored an assessment published in an environmental management industry magazine rejecting the connections between ozone pollution and its health impacts in 2015, alongside Michael E. Honeycutt, the director of the Toxicology Division of the TCEQ.

Honeycutt, who for years accused the EPA of overstating the risks posed by toxic chemicals, was tapped in 2017 by President Donald Trump to lead the EPA's Science Advisory Board despite outcry from Texas environmental advocates.

Also on Wheeler's list is Steven Packham, a toxicologist at Utah's Department of Environmental Quality. Packham has previously said there is no direct data linking atmospheric particulate matter (PM) with a diameter of less than 2.5 micrometers (PM2.5, or "fine particulates") to lung-related health impacts.

Scientists, however, have linked PM2.5 to lung cancer and other deadly health problems.

Packham also wrote to the EPA official accepting recommendation letters for the Science Advisory Board in 2016 to recommend Honeycutt for the Science Advisory Board.

"I urge you to accept the nomination of Michael Honeycutt. He is eminently qualified by virtue of his scientific knowledge and experience as a highly respected researcher, leader, and regulator," wrote Packham on July 8 of that year. "He also has a talent for resolving issues without contention with compromising adherence to sound scientific principles and methods."

Additional appointees include Corey Masuca, of the Jefferson County Department of Health in Alabama, and Timothy Lewis, an aquatic ecology expert with the U.S. Army Corps of Engineers. Masuca has historically been among the Birmingham officials tasked with addressing the city's ongoing ozone pollution issues — Birmingham is typically listed as one of the worst in the nation for air quality.

Planned shake-up at EPA would make scientists more vulnerable to political interference, critics say
A pillar of Pruitt's tenure was the former administrator's efforts to "streamline and standardize" policy development processes within the EPA. That broader approach has meant sweeping changes and proposals within the agency.

Under Pruitt, for example, the EPA proposed limiting the use of scientific evidence sourced from confidential data, despite push-back from health and environmental advocates. Moreover, EPA science advisory board researchers who have historically received agency grants have been accused of having conflicts of interest. Their replacements, however, have largely consisted of industry insiders and conservative voices.

Little has changed since Wheeler took over in July. On Wednesday, along with the new CASAC appointees, the EPA announced an end to the Particulate Matter Review panel, which provided scientific expertise on air pollution. Instead, CASAC's seven members alone will evaluate the threats posed by PM to public health.

In a statement Wednesday, the Union of Concerned Scientists (UCS) blasted that move and hit out at the "EPA's political leadership" including Wheeler.

"They are determined to weaken the safeguards that protect us from hazardous air pollution, regardless of the evidence," said Gretchen Goldman, research director of the Center for Science and Democracy with UCS. "The consequences are enormous, and this represents a fundamental betrayal of the mission of the agency and the laws the EPA is supposed to enforce."

This week's move to streamline the office comes after a series of other recent changes. Last month, the EPA announced that it would downgrade the science adviser's office, which is meant to advise the EPA administrator on the use of science in environmental policies.

The head of the EPA's Office of Children's Health Protection, Ruth Etzel, has also been placed on leave for unknown reasons, another indicator that the agency under Wheeler is increasingly moving away from roles that emphasize the link between health and the environment.

In a letter sent Wednesday, Democrats asked the EPA to explain Etzel's removal, while noting that her office is key to preventing future tragedies like the ongoing water crisis in Flint, Michigan.

Antonio Bravo
Office of Wetlands, Oceans & Watersheds
202-566-1976

Message

From: Daguillard, Robert [Daguillard.Robert@epa.gov]
Sent: 10/11/2018 2:06:26 PM
To: Grantham, Nancy [Grantham.Nancy@epa.gov]; AO OPA Media Relations [AO_OPA_Media_Relations@epa.gov]
Subject: RE: Morning Energy: Apprehension meets EPA reorg — U.N. Ambassador Zinke? — E15 faces legal hurdles

Here it is:

Plans for bureaucratic reshuffle raise fears at EPA

https://subscriber.politicopro.com/energy/article/2018/10/plans-for-bureaucratic-reshuffle-raise-fears-at-epa-841189

By ANNIE SNIDER and ALEX GUILLÉN 10/11/2018 05:00 AM EDT

The Trump administration is advancing a major overhaul of EPA aimed at streamlining the sprawling agency and resetting its priorities — a prospect that strikes fear in green groups and career employees.

Against a backdrop of aggressive regulatory rollbacks, staff reshuffles and budget cuts since President Donald Trump came into office, the administration's plan to reorganize the agency's approach to management is being met with skepticism at EPA headquarters in Washington and regional outposts around the country.

"I dub this 'rollback by reorg,'" John Walke with the Natural Resources Defense Council said of the administration's plans. "I see their reorganization and indifference to staff levels being part and parcel of an agenda to roll back safeguards and leave EPA even more crippled for the next administration than it was when the Trump administration came into office."

Privately, many state regulators and even some EPA staffers say some bureaucratic overhaul is long overdue. But they worry about the motives of a president who says he wants to boost the fortunes of coal and oil companies while dismissing major environmental crises like climate change.

"Reorganizations in and of themselves are not bad," said Joe Edgell, president of NTEU Chapter 280, which represents EPA's unionized headquarters staff. "But it's important that the reorganization be geared toward improving our protection of human health and the environment, and at this point, we're not sure that all the changes we've heard about are designed with that goal in mind."

Overseeing the push within EPA is Chief of Operations Henry Darwin, a devotee of the "LEAN Process Improvement" management system, which was developed in the 1980s to improve assembly line performance at Toyota and has become a favorite of the management consultant set. Darwin joined the Trump administration last year from Arizona, where he revamped the operations of the Department of Environmental Quality and later the broader state government.

In his first year on the job, Darwin has been working with each division at EPA to set metrics for measuring their effectiveness and then requiring them to track their progress and report to him monthly. From his office in Washington, dominated by brightly colored organizational charts and "bowling sheets" tracking the agency's progress towards specific goals, Darwin is working to reassure employees that his goal is to help the agency function better with limited resources.

EPA now employs around 15,000 people, down from a peak of more than 18,000 at the end of the Clinton administration, and Trump has called for that number to fall by a third to levels not seen since the early days of the agency during the Ford administration, although Congress has so far staved off cuts that steep.

"There is no denying the fact that EPA is not going to be getting bigger anytime soon," Darwin told POLITICO in a recent interview. He describes his mission as "doing whatever I can to make sure that the mission of this organization is still fulfilled given those facts."

Ultimately, Congress will have to sign off on the reorganization; last week Darwin told staff that the plan would soon be presented to the Hill.

The biggest changes announced so far are for the 10 regional offices where EPA conducts on-the-ground work overseeing states' implementation of federal programs, inspecting industrial sites and conducting research and coordination crucial to many communities. Darwin wants each of those offices to structure themselves similar to EPA headquarters — an air office focused on pollution from smokestacks and tailpipes, a waste office to oversee Superfund cleanups and so on. Darwin says that would give headquarters a better "line of sight" into what is happening in the regions, each of which now has a different organizational structure.

"States basically think this is a sensible idea, but the process will matter a lot to them," said Sam Sankar, executive director of the Environmental Council of the States.

"If EPA needs to reassign managers as part of this, it needs to be scrupulously objective about its choices," Sankar added. "Otherwise people might view this as a political exercise, and that would be bad for everyone."

How EPA enforces environmental laws will be one of the most closely-watched areas as the agency moves forward with the reorganization.

In the president's first year in office, enforcement actions dropped precipitously from levels under the previous three administrations, according to a report from the Environmental Integrity Project that analyzed EPA data. It found that EPA and the Justice Department lodged 48 lawsuits in Trump's first year, collecting $30 million in penalties — down from 71 cases in President Barack Obama's first year that yielded $71 million in penalties, or $81 million once adjusted for inflation.

Darwin disputes the idea that enforcement is best measured by counting the total number of cases EPA brings or the amount of money it collects. Instead, he is tracking the length of time from when a violation is identified to when compliance is achieved, which he wants the agency to decrease, and the number of facilities that are found to comply when they are inspected in the first place, which Darwin is pushing to increase.

"It's just like when you're building a house: I don't judge the quality of my house by how many hammers I use to construct my house, I judge it by the stability of the house," he said. "This is how we judge the structural integrity of our enforcement program, not by the number of hammers that we use to get there."

But critics say that approach doesn't make sense unless the ultimate goal is to make life easier for the companies EPA is supposed to be watching.

"If corporations think the worst that can happen when they're caught is that they'll be hustled back into compliance, what's the incentive to stay in compliance in the first place?" asked Eric Schaeffer, executive director of the Environmental Integrity Project and a former civil enforcement chief at EPA. Schaeffer compared the approach to a police officer handing out warnings instead of speeding tickets.

Darwin's metrics "don't reflect the real world," said Cynthia Giles, who served as EPA's enforcement chief under the Obama administration. In reality, she said, most compliance is self-reported by industry and EPA can only send inspectors to fewer than 1 percent of facilities. So, she argued, those inspections should be targeted to the facilities most likely to be in violation so that regulators can rein in pollution problems. But if Darwin wants to see an increase in initial compliance, regulators will have the opposite incentive.

In EPA's regional offices, where many enforcement experts are housed within their respective program offices to focus on air, water or other specific compliance issues, Darwin is proposing to consolidate them into a single enforcement office, as they are at headquarters.

Mike Mikulka, president of the union representing more than 800 Region 5 employees in Chicago, warned that bunching those attorneys, scientists and other enforcement experts together in a single office could make a tempting target for the agency's critics.

"I just think that once that reorganization takes place, then they'll look at that and say, 'Oh my god, we've got too many people working on this,'" Mikulka said. "And then they'll say, 'Well, we can cut people that way.' I just think it could be the first step in cutting enforcement resources at EPA."

Giles said that the bureaucratic reorganization in and of itself doesn't pose a problem to enforcement. What really matters, she argued, is the direction from agency leaders about how aggressively to pursue environmental violations.

"The important question is whether EPA is insisting on companies complying with the standards to protect health or not," Giles said. "And on that score, I think that this administration couldn't be more clear: Regions are supposed to step back on enforcement. They can't investigate cases, they can't send cases to DOJ without headquarters' say so."

Cheers, R.

Robert Daguillard
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+1 (202) 360-0476 (M)

From: Grantham, Nancy
Sent: Thursday, October 11, 2018 10:00 AM
To: AO OPA Media Relations <AO_OPA_Media_Relations@epa.gov>
Subject: FW: Morning Energy: Apprehension meets EPA reorg — U.N. Ambassador Zinke? — E15 faces legal hurdles

Nancy Grantham
Office of Public Affairs
US Environmental Protection Agency
202-564-6879 (desk)
202-253-7056 (mobile)

Can you please send me the complete story regarding the realignment?

From: POLITICO Pro Energy [mailto:politicoemail@politicopro.com]
Sent: Thursday, October 11, 2018 5:48 AM
To: Darwin, Henry <darwin.henry@epa.gov>
Subject: Morning Energy: Apprehension meets EPA reorg — U.N. Ambassador Zinke? — E15 faces legal hurdles

View online version

MORNINGENERGY

10/11/2018 05:46 AM EDT

By KELSEY TAMBORRINO (ktamborrino@politico.com; @kelseytam)

With help from Anthony Adragna, Eric Wolff, Darius Dixon and Annie Snider

APPREHENSION AHEAD: The Trump administration's plan to overall the makeup of its EPA — an effort sought to streamline the agency and press restart on its priorities — is being met with a sizable dose of skepticism, and even fear, among green groups and career employees. So far, as Pro's Annie Snider and Alex Guillén report this morning, the biggest changes have been to the 10 regional offices with a structure mimicking EPA headquarters in mind. And, overseeing the overall reorganization push is Chief of Operations Henry Darwin, who told POLITICO in a recent interview that "there is no denying the fact that EPA is not going to be getting bigger anytime soon."

Privately, many state regulators and even some EPA staffers say that some sort of bureaucratic overhaul is long overdue. But there's sufficient worry about the motives of an administration that prioritizes the well-being of coal and oil companies while dismissing the environmental problems like climate change. Congress would have to sign off on most changes, and last week Darwin told staff that the plan would head to the Hill soon.

"Reorganizations in and of themselves are not bad," said Joe Edgell, president of NTEU Chapter 280. "But it's important that the reorganization be geared toward improving our protection of human health and the environment, and at this point, we're not sure that all the changes we've heard about are designed with that goal in mind."

Some of the most significant changes may come at EPA's enforcement office, where Darwin says he wants to change how success is measured. Instead of focusing on how much the agency collects in fines, Darwin wants to prioritize quickly correcting violations of anti-pollution laws — an approach

critics worry is too lax. "If corporations think the worst that can happen when they're caught is that they'll be hustled back into compliance, what's the incentive to stay in compliance in the first place?" asked Eric Schaeffer, executive director of the Environmental Integrity Project and a former civil enforcement chief at EPA. Read the story here.

IT'S THURSDAY MORNING! I'm your host, Kelsey Tamborrino. Cheniere's Khary Cauthen was the first to correctly ID Warren Harding as the only president to appoint a former president to the Supreme Court — he chose William Taft. For today: Another presidential trivia question: Who is the only president with an MBA? Send your tips, energy gossip and comments to ktamborrino@politico.com , or follow us on Twitter @kelseytam, @Morning_Energy and @POLITICOPro.

YOUR 2018 MIDTERMS HQ: The countdown is on. Policy professionals know the 2018 midterms represent more than keeping track of winners and losers. The outcome of high-stake contests could dramatically alter the course of policymaking across the country. Go beyond election night with POLITICO Pro's 2018 Midterms HQ. Read More.

POLITICO IS PARTNERING WITH THE MILKEN INSTITUTE to bring a special edition of the POLITICO Pulse newsletter to the Milken Institute Future of Health Summit. Written by Dan Diamond, the newsletter will take readers inside one of the most influential gatherings of global health industry leaders and innovators as they tackle today's most pressing health challenges. The newsletter will run Oct. 23-24. Sign up today to begin receiving exclusive coverage on Day One of the summit.

BEYOND THE BELTWAY

MICHAEL CONTINUES DESTRUCTIVE PATH: Hurricane Michael made landfall Wednesday with 150-plus mph winds, and is expected to continue to move inland today. Duke Energy projected Wednesday that the Category 4 storm could cause anywhere from 300,000 to 500,000 power outages this week in North Carolina and South Carolina, which are still reeling from last month's Hurricane Florence.

Approximately 42 percent of the current oil production and roughly 31 percent of the natural gas production in the Gulf of Mexico had been shut-in as of 11 a.m. Wednesday, the U.S. Bureau of Safety and Environmental Enforcement said. The agency also said four of the 17 dynamically positioned rigs operating in the Gulf were moved out of the storm's path as a precaution. As of 6 p.m. Wednesday, about 388,000 customers in Florida, 46,000 customers in Georgia, and 45,000 customers in Alabama reported electricity outages, according to EIA data, with those numbers expected to rise.

MONIZ STEPS OFF SAUDI PROJECT AMID JOURNALIST PROBE: The Trump administration is facing pressure to investigate the fate of Saudi journalist Jamal Khashoggi, a U.S. resident who hasn't been seen since he entered a Saudi consulate in Istanbul more than a week ago. The concern over Khashoggi, a Washington Post columnist, also led former Energy Secretary Ernest Moniz to drop his membership from the board of NEOM, a "smart city" project in the kingdom. "Given current events, I am suspending my participation on the NEOM board," Moniz said in a statement Wednesday, first reported by Axios. "Going forward, my engagement with the advisory board will depend on learning all the facts about Jamal Khashoggi's disappearance over the coming days and weeks."

It's worth noting that the Trump administration has a couple of important asks in front of the Saudis: It's counting on the kingdom to maintain steady supplies of crude oil on the global market in order to temper price spikes once the White House reimposes sanctions on Iran; and Energy Secretary Rick Perry has been pressing to secure a civil nuclear trade agreement with Saudi Arabia. DOE declined to comment on whether Khashoggi's situation had affected its initiatives.

'Sweep it under the rug': POLITICO's Nahal Toosi takes a look at the growing worries that the White House will not confront the Saudis here.

THE WHITE HOUSE

REPORT: ZINKE CONSIDERED FOR U.N.: Interior Secretary Ryan Zinke is among the names being considered to replace outgoing U.N. Ambassador Nikki Haley, who resigned this week, according to a Fox News report based on two senior officials within the Trump administration. As POLITICO previously reported , Dina Powell, a Goldman Sachs executive and former deputy national security adviser, is the top candidate to replace Haley, but the White House has signaled it's open to others. Fox News reported that President Donald Trump was set to meet with Zinke on Wednesday about the U.N. role and other issues. In the Oval Office on Wednesday, Trump told reporters, "We like Dina" but are also "looking at others" for the role. For what it's worth, Interior told ME it doesn't comment "on conversations that may or may not have occurred between the secretary and the president."

Not a fan: Alaska Republican Sen. Lisa Murkowski seemed cool to the prospect of Zinke leaving to become U.N. ambassador even as she expressed confidence in Deputy Secretary David Bernhardt leading the agency. "If you now have the secretary leave, you kind of have to start all over," she told reporters. But she praised Bernhardt for "working round the clock" and said "he's doing a good job there."

ON THE HILL

E15 OPPONENTS HAVE AN ALLY IN KAVANAUGH: Trump's promise to boost ethanol sales will have to survive an inevitable court challenge once EPA formally issues an E15 waiver sometime next spring, and the oil industry does not think the agency has the legal authority it needs to follow through, Pro's Eric Wolff reported Wednesday. On that front, they appear to be in agreement with newly sworn-in Supreme Court Justice Brett Kavanaugh, who offered his views in a 2012 case over a partial waiver. The case was dismissed on procedural grounds, but Kavanaugh wrote a dissenting opinion arguing that EPA was misinterpreting the Clean Air Act. "On the merits, I conclude that the E15 waiver violates the statute," he wrote in *Grocery Manufacturers Association v. EPA*. "The waiver might be good policy; if so, Congress has the power to enact a new law permitting E15. But under the statute as currently written, EPA lacks authority for the waiver."

Back to the Hill? While legislative action has largely fizzled this year around reforming the Renewable Fuel Standard, oil refiners' allies on Capitol Hill say they are not giving up the fight. "We're still talking," Sen. John Cornyn (R-Texas) told reporters Wednesday. "We think we need a permanent solution and I also think there's a high likelihood there will be litigation, so we think a legislative solution would be more appropriate." A spokesman for Rep. John Shimkus, who has been leading the House effort on reform, said Shimkus hopes to get a draft bill out later this year.

NOT AFRAID: Murkowski's GOP colleagues have her back against any retaliation over her vote against Kavanaugh, and she said she isn't afraid of Trump's threat that she will "never recover" from that vote. "There are consequences to every vote that we take and I accept that, but I also cannot be driven out of fear of a tweet, of a reprimand, of a cross word," she told reporters. She smiled when asked if she'll run again — "I don't have to make that decision for four years" — but quickly added: "I know Alaska's political terrain better than [Trump] does."

PIPE DREAMS: Congress' approval this week of the America's Water Infrastructure Act of 2018 S. 3021 (115) provides some of the most significant updates to the country's drinking water management in two decades, but it's unlikely to fix some of the nation's most pressing water problems on its own. The bill will give lawmakers a major achievement to tout back home ahead of midterms, Annie reports , especially in districts grappling with drinking water problems, but some argue the bill is just a step in the right direction on solving water infrastructure problems.

DOJ NOMINEE MOVES CLOSER: The Senate will vote at 12:10 p.m. on the nomination of Jeffrey Clark to be assistant attorney general in charge of the Justice Department's Environment and Natural Resources Division, following a 53-44 cloture vote on Wednesday. Trump first nominated Clark, who is backed by industry groups, in June 2017.

McNAMEE ENDGAME: Republican senators on the Energy and Natural Resources Committee are hoping to swiftly confirm FERC nominee Bernard McNamee before year's end, in an effort to

return the commission to full strength, Pro's Anthony Adragna reports. Democrats, meanwhile, warn of a coming battle over the selection, as they remain worried that adding McNamee to FERC will politicize the commission.

NEWS TO ME: Trump suggested aboard Air Force One on Tuesday he'd received "expedited approval" for a Texas pipeline project, but Cornyn told ME he wasn't sure which one the president was referring to even as he suggested more pipeline capacity is needed. "I do know they're flaring off and burning natural gas in the Permian Basin because they don't have the pipeline capacity to send it to market," he said. "I'm not familiar to what he was referring to, but there is a shortage of capacity to be sure."

INSIDE THE AGENCIES

WHEELER HEADS TO CALI: Acting EPA Administrator Andrew Wheeler is in California's Central Valley today, where he'll appear at a press event with Republican Rep. Jeff Denham, who is facing one of the tightest re-election fights in the country. Denham has asked Wheeler to use EPA's authority to overturn a proposal by California's State Water Resources Board that would require more water to be reserved in key rivers for the benefit of endangered fish species and the detriment of farmers who dominate Denham's district.

WHAT'S YOUR PLAN, STAN? Michigan Democrats who were on the frontlines of the Flint lead contamination crisis are pressing EPA to account for the recent dismissal of the head of the agency's Office of Children's Health Protection. In a letter being sent to Wheeler this morning, Sens. Gary Peters and Debbie Stabenow, and Rep. Dan Kildee ask EPA to explain Ruth Etzel's abrupt removal as head of the office and how the office will operate now. "Going forward, we need to ensure we have a strong national infrastructure to prevent a scenario like the Flint water crisis from ever happening again, and the Office of Children's Health Protection is key to this strategy," the lawmakers write. An EPA spokesman has said Etzel was placed on administrative leave while the agency investigates allegations about her leadership of the office.

WHEELER ADDS 5 TO ADVISORY PANEL: Wheeler appointed five new members to the Clean Air Scientific Advisory Committee, which advises the administrator on NAAQS issues: Mark Frampton, of the University of Rochester Medical Center; Sabine Lange, from the Texas Commission on Environmental Quality; Timothy Lewis, of the U.S. Army Corps of Engineers; Corey Masuca, of the Jefferson County Department of Health in Alabama; and Utah Department of Environmental Quality's Steven Packham.

QUICK HITS

— "How Bloomberg embeds green warriors in blue-state governments," RealClear Investigations.

— "Regs chief likely on short list for D.C. Circuit bench," E&E News.

— "More than 1,500 Interior employees removed or reprimanded for harassment, misconduct," The Hill.

— "James Murdoch in line to replace Elon Musk as Tesla chair," Financial Times.

— "Trump administration seeks to deploy earthquake sensors faster," The Wall Street Journal.

— "Toxic red tide could sicken people as Hurricane Michael pushes It ashore," Bloomberg.

HAPPENING TODAY

8:15 a.m. — Rice University's Baker Institute for Public Policy hosts Global Energy Transitions Summit, Houston.

8:30 a.m. — The Center for Strategic and International Studies discussion on International Energy Agency report, "The Future of Petrochemicals: Toward a More Sustainable Supply of Plastics and Fertilizers," 1616 Rhode Island Avenue NW.

8:30 a.m. — National Academy of Sciences Polar Research Board briefing on "Understanding Northern Latitude Vegetation Greening and Browning," 500 Fifth Street NW.

10 a.m. — Senate Energy and Natural Resources Committee hearing to examine blackstart, 366 Dirksen.

4:30 p.m. — The National Academy of Sciences' LabX hosts " Two Scientists Walk Into a Bar," 3930 Georgia Avenue NW.

THAT'S ALL FOR ME!

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POLITICOPRO

This email was sent to darwin.henry@epa.gov by: POLITICO, LLC 1000 Wilson Blvd. Arlington, VA, 22209, USA

Message

From: Richardson, RobinH [Richardson.RobinH@epa.gov]
Sent: 10/2/2018 9:37:04 PM
To: schafer, joan [schafer.joan@epa.gov]; Grantham, Nancy [Grantham.Nancy@epa.gov]
CC: Nitsch, Chad [Nitsch.Chad@epa.gov]; White, Terri-A [White.Terri-A@epa.gov]; Rosenberg, Lorna [Rosenberg.Lorna@epa.gov]; Ward, Prentiss [Ward.Prentiss@epa.gov]; Martinsen, Jessica [Martinsen.Jessica@epa.gov]
Subject: RE: EPA's Office of Children's Health Protection (OCHP) & Regional Children's Environmental Health Coordinators

Thank you Joan. I'll follow up here and let you know. Thank you again, Robin

---

Robin H Richardson
Principal Deputy Associate Administrator
Office of Congressional and Intergovernmental Relations
U.S. Environmental Protection Agency
202-564-3358 (desk)
Ex. 6 (cell)
richardson.robinh@epa.gov

From: schafer, joan
Sent: Tuesday, October 02, 2018 5:01 PM
To: Richardson, RobinH <Richardson.RobinH@epa.gov>; Grantham, Nancy <Grantham.Nancy@epa.gov>
Cc: Nitsch, Chad <Nitsch.Chad@epa.gov>; White, Terri-A <White.Terri-A@epa.gov>; Rosenberg, Lorna <Rosenberg.Lorna@epa.gov>; Ward, Prentiss <Ward.Prentiss@epa.gov>; Martinsen, Jessica <Martinsen.Jessica@epa.gov>
Subject: FW: EPA's Office of Children's Health Protection (OCHP) & Regional Children's Environmental Health Coordinators

Robin – one of our R3 employees received the following email from Douglas Pasternak (please see below). He sent the email to someone he believed is our Children's Health Coordinator in error.

We want to ask you if you want to contact him. However, we also want to bring this to your attention because he may be reaching out to other Children's Health Coordinators across the country with the same request.

Please let us know if you need anything additional from us at this time. Region 3 will not be responding to him.

Thank you.
Joan

Joan T. Schafer, Senior Advisor
U.S. Environmental Protection Agency
Region 3 Office of Communications and Government Relations
1650 Arch Street
Philadelphia, PA 19103
215-814-5143 (ph)
Ex. 6

From: Rosenberg, Lorna
Sent: Tuesday, October 02, 2018 3:28 PM

To: Nitsch, Chad <Nitsch.Chad@epa.gov>; White, Terri-A <White.Terri-A@epa.gov>; schafer, joan <schafer.joan@epa.gov>
Cc: Martinsen, Jessica <Martinsen.Jessica@epa.gov>; Ward, Prentiss <Ward.Prentiss@epa.gov>
Subject: FW: EPA's Office of Children's Health Protection (OCHP) & Regional Children's Environmental Health Coordinators

Hi all, I just received this email....please advise on the next steps. By the way, I am not the Children's Health Coordinator, it's Prentiss Ward, I coordinate Green and Healthy Schools.

Lorna S. Rosenberg
Green and Healthy Schools Coordinator, Region 3 EPA
LEED Green Associate
1650 Arch Street
Philadelphia, PA 19103

W: 215-814-5389
M: Ex. 6
Rosenberg.Lorna@epa.gov

From: Pasternak, Doug [mailto:Doug.Pasternak@mail.house.gov]
Sent: Tuesday, October 02, 2018 3:16 PM
To: Rosenberg, Lorna <Rosenberg.Lorna@epa.gov>
Subject: EPA's Office of Children's Health Protection (OCHP) & Regional Children's Environmental Health Coordinators

Lorna,

My name is Doug Pasternak and I work for Congress on the democratic/minority staff of the House Committee on Science, Space & Technology. Our Committee has oversight jurisdiction over science-related issues at the Environmental Protection Agency (EPA). I am reaching out to you regarding the EPA's Office of Children's Health Protection (OCHP), that has been headed by Dr. Ruth Etzel. I am sure you have seen some of the recent news stories about this office (https://www.nytimes.com/2018/09/26/climate/epa-etzel-children-health-program.html; https://www.cnn.com/2018/09/28/politics/epa-research-changes/index.html; and https://www.politico.com/newsletters/morning-energy/2018/09/27/permanent-conservation-353356).

I was hoping to speak with you (in confidence) about your role as a regional coordinator on children's environmental health related issues and any insight you can provide regarding EPA's Office of Children's Health Protection. Some stories have suggested that EPA may be working on a reorganization of this office and a recent EPA 'reorganization' chart was reportedly shared with EPA's regional offices that no longer identified any regional Children's Environmental Health Coordinator positions. I am trying to ascertain the validity of those claims as well as any other EPA efforts to reorganize, downsize or realign the Agency's children's health related programs and various initiatives.

If you are willing to discuss these issues – or others you believe I should be aware of regarding children's environmental health-related matters - please let me know the best phone number to reach you on or feel free to try me at your convenience at my office number listed below. Please also feel free to pass along this e-mail or my contact information to any other individuals in the pediatric environmental health community that you believe may want to talk with me about these issues.

Thank you very much, in advance, for your time and consideration.

All the best,

Doug

Douglas Pasternak
Staff Director & Chief Investigator
Democratic Staff
Subcommittee on Oversight
Committee on Science, Space & Technology
U.S. House of Representatives
394 Ford House Office Building
2nd and D Streets SW,
Washington, D.C. 20515

Work: Ex. 6 (direct)
E-mail: doug.pasternak@mail.house.gov

Message

From: McMichael, Nate [McMichael.Nate@epa.gov]
Sent: 10/9/2018 10:05:16 PM
To: Grantham, Nancy [Grantham.Nancy@epa.gov]
Subject: Fwd: Background on OCHP and Dr. Firestone bio

I flagged the question and our response for Holly in the note below. I don't expect any comments since this was pulled from other materials, but I will flag anything that comes in ASAP.

Sent from my iPhone

Begin forwarded message:

> **From:** "McMichael, Nate" <McMichael.Nate@epa.gov>
> **Date:** October 9, 2018 at 5:40:37 PM EDT
> **To:** "Greaves, Holly" <greaves.holly@epa.gov>, "Bloom, David" <Bloom.David@epa.gov>, "Osborne, Howard" <Osborne.Howard@epa.gov>
> **Cc:** "Soward, Ruth-Alene" <Soward.Ruth-Alene@epa.gov>, "Terris, Carol" <Terris.Carol@epa.gov>, "Williams, Maria" <Williams.Maria@epa.gov>
> **Subject: FW: Background on OCHP and Dr. Firestone bio**
>
> Holly, David and Howard –
>
> We received a short turnaround request from OPA on funding for the Children's Health Program. I wanted to flag the question and response that I am sending to OPA for your awareness. If there is anything that you would like to change or add, I can get it to OPA later tonight or tomorrow morning.
>
> **Question**:
> I also saw that for the past two fiscal years, the Trump administration has proposed significantly decreasing OCHP's budget (from about $5.4 million to $1.4 million), and thirding its staff (from 15.4 FTEs to 4.9 FTEs). I will be mentioning that in the article and wanted to give you the opportunity to respond as there have been questions about OCHP's future.
>
> **Response**:
>
> **Deliberative Process / Ex. 5**
>
> Thank you!
> -Nate
>
> **From:** Terris, Carol
> **Sent:** Tuesday, October 09, 2018 5:34 PM
> **To:** McMichael, Nate <McMichael.Nate@epa.gov>

Cc: Baden, Beth <Baden.Beth@epa.gov>; Boyd, Wyatt <Boyd.Wyatt@epa.gov>; Cuscino, Glen <Cuscino.Glen@epa.gov>; Li, Sylvana <li.sylvana@epa.gov>; Williams, Maria <Williams.Maria@epa.gov>
Subject: RE: Background on OCHP and Dr. Firestone bio

Deliberative Process / Ex. 5

From: McMichael, Nate
Sent: Tuesday, October 09, 2018 5:13 PM
To: Boyd, Wyatt <Boyd.Wyatt@epa.gov>; Williams, Maria <Williams.Maria@epa.gov>; Cuscino, Glen <Cuscino.Glen@epa.gov>; Terris, Carol <Terris.Carol@epa.gov>; Li, Sylvana <li.sylvana@epa.gov>
Cc: Soward, Ruth-Alene <Soward.Ruth-Alene@epa.gov>
Subject: RE: Background on OCHP and Dr. Firestone bio

Sorry to ping since this came in late and we weren't given much time, but do we expect to have anything in the next half hour?

Thanks again for your help!
-Nate

From: McMichael, Nate
Sent: Tuesday, October 09, 2018 3:17 PM
To: Boyd, Wyatt <Boyd.Wyatt@epa.gov>; Williams, Maria <Williams.Maria@epa.gov>; Cuscino, Glen <Cuscino.Glen@epa.gov>; Terris, Carol <Terris.Carol@epa.gov>
Cc: Soward, Ruth-Alene <Soward.Ruth-Alene@epa.gov>
Subject: Fwd: Background on OCHP and Dr. Firestone bio

OB- Please see press inquiry below and let me know if there is anything that we can use from QFRs, hearing prep, or other materials.

Thanks!

Sent from my iPhone

Begin forwarded message:

> **From:** "Grantham, Nancy" <Grantham.Nancy@epa.gov>
> **Date:** October 9, 2018 at 3:11:40 PM EDT
> **To:** "McMichael, Nate" <McMichael.Nate@epa.gov>

Cc: "Grantham, Nancy" <Grantham.Nancy@epa.gov>
Subject: FW: Background on OCHP and Dr. Firestone bio

Nate –

Can we get OCFO input on the highlighted question below? We will of course say the office will continue as an important part of the EPA's mission – however wanted OCFO to weigh in on the broader budget issue.

Deadline is today thanks ng

Nancy Grantham
Office of Public Affairs
US Environmental Protection Agency
202-564-6879 (desk)
Ex. 6 (mobile)

From: Ariel Wittenberg [mailto:awittenberg@eenews.net]
Sent: Tuesday, October 09, 2018 12:20 PM
To: Grantham, Nancy <Grantham.Nancy@epa.gov>; Konkus, John <konkus.john@epa.gov>
Cc: Press <Press@epa.gov>
Subject: RE: Background on OCHP and Dr. Firestone bio

Hi Nancy and John,

Thanks for setting up the interview with Michael Firestone today. I have a few questions for the press office below. My deadline is 11 a.m. tomorrow.

- We noticed that the organizational chart for EPA's regional realignment included with Admin. Wheeler's Sept. 6 email did not include children's health in the immediate office area, but the organizational chart posted on the intranet site linked in Henry Darwin's Oct. 3 email does include children's health. What changed? Why did EPA decide to include children's health in the later organizational chart?

- I also saw that for the past two fiscal years, the Trump administration has proposed significantly decreasing OCHP's budget (from about $5.4 million to $1.4 million), and thirding its staff (from 15.4 FTEs to 4.9 FTEs). I will be mentioning that in the article and wanted to give you the opportunity to respond as there have been questions about OCHP's future.

- What is the status of the federal lead strategy? What is the hold up? I know OCHP and Dr. Etzel had been working on it as part of the President's Task Force on Environmental Health Risks and Safety Risks to Children.

- Is there any update regarding Ruth Etzel's status? How long is her administrative leave expected to last? At what point would EPA look to replace her permanently?

- I've talked to a number of people who have worked closely with OCHP and they all sing Michael Firestone's praises. But a few have also said they believe a

pediatrician would be better equipped to run OCHP. Do you have any response to that criticism?

Thanks again,

Ariel

Ariel Wittenberg
E&E News reporter
awittenberg@eenews.net
202-737-4557
@arielwittenberg

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Energywire, Climatewire, Greenwire, E&E Daily, E&E News PM, E&ETV

From: Grantham, Nancy <Grantham.Nancy@epa.gov>
Sent: Tuesday, October 09, 2018 9:06 AM
To: Konkus, John <konkus.john@epa.gov>
Cc: Ariel Wittenberg <awittenberg@eenews.net>
Subject: Re: Background on OCHP and Dr. Firestone bio

Hi Ariel - I will meet you at the north entrance at 11 am. Thanks

Sent from my iPhone

On Oct 9, 2018, at 9:01 AM, Konkus, John <konkus.john@epa.gov> wrote:

> In person will be fine. Nancy will be in touch.
>
> John Konkus
> Environmental Protection Agency
> Deputy Associate Administrator
> Office of Public Affairs
>
> On Oct 9, 2018, at 8:48 AM, Ariel Wittenberg <awittenberg@eenews.net> wrote:
>
>> I thought this was in person, which is my strong preference. As we discussed Friday, I was planning to come to the north entrance at 11 am. Nancy, please let me know if that still works.
>>
>> I'll be on my cell this morning– Ex. 6
>>
>> Ariel
>>
>> Ariel Wittenberg

Reporter, E&E News
202-737-4557
awittenberg@eenews.net

Sent from my iPhone

On Oct 9, 2018, at 8:13 AM, Konkus, John <konkus.john@epa.gov> wrote:

> Ariel: I'm looping you in the Nancy who will take it from here. This can be in person at EPA HQ or over the phone.
>
> Thank you,
>
> John
>
> ---
>
> **From:** Ariel Wittenberg [mailto:awittenberg@eenews.net]
> **Sent:** Friday, October 5, 2018 3:47 PM
> **To:** Konkus, John <konkus.john@epa.gov>
> **Subject:** RE: Background on OCHP and Dr. Firestone bio
>
> Thanks!
>
> Ariel
>
> ---
>
> **From:** Konkus, John <konkus.john@epa.gov>
> **Sent:** Friday, October 05, 2018 3:41 PM
> **To:** Ariel Wittenberg <awittenberg@eenews.net>
> **Subject:** Background on OCHP and Dr. Firestone bio
>
>> Dr. Firestone's (bio attached) regulatory work in the past has included:
>>
>> ? Certification & Training (C&T) of Pesticide Applicators [FIFRA]
>> ? Pesticide Worker Protection Regulations

- 2008 Lead NAAQS

Ongoing regulations he's recently worked on include:

- <!--[if !supportLists]--><!--[endif]-->National Primary Drinking Water Regulations: Regulation of Perchlorate
- <!--[if !supportLists]--><!--[endif]-->Endangerment Finding for Lead Emissions from Piston-Engine Aircraft Using Leaded Aviation Gasoline
- <!--[if !supportLists]--><!--[endif]-->Certification of Pesticide Applicators (CPA) Rule; Reconsideration of the Minimum Age Requirements
- <!--[if !supportLists]--><!--[endif]-->Agricultural Worker Protection Standard (WPS); Reconsideration of Several Requirements Incl. Rescinding Childhood Age Restrictions

Regulatory workgroups other OCHP staff are currently participating on other include:

- "Lead; Renovation, Repair, and Painting Program for Public and Commercial Buildings [TSCA Section 402(c)(3)]"
- National Primary Drinking Water Regulations for Lead and Copper: Regulatory Revisions
- Lead; Residential Lead Dust Hazard Standards [TSCA Section 403]
- Trichloroethylene (TCE) - TSCA Section 6(a); aerosol degreasing and spot cleaning in dry cleaning facilities
- Trichloroethylene (TCE); Rulemaking Under TSCA §6(a); Vapor Degreasing
- Paint Removers - Methylene Chloride (MC) and N-Methylpyrrolidone (NMP) - TSCA Section 6(a)

- Cyanotoxin Ambient Water Quality Criteria for Recreational Waters
- Regulation of Persistent, Bioaccumulative and Toxic (PBT) Chemicals under TSCA 6 (h)
- Regulatory Determinations for CCL 4
- National Primary Drinking Water Regulations: Group Regulation of Carcinogenic Volatile Organic Compounds (VOCs)
- "Polychlorinated Biphenyls (PCBs); Reassessment of Use Authorizations [TSCA Section 6(e)]"
- "Lead Wheel Weights; Regulatory Investigation [TSCA Section 21]"
- PM NAAQS Review
- Review of National Ambient Air Quality Standards (NAAQS) for Sulfur Dioxide (SO2)

Message

From: Grantham, Nancy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12A3C2ED7158417FB0BB1B1B72A8CFB0-GRANTHAM, NANCY]
Sent: 10/1/2018 10:12:52 AM
To: Gray, David [gray.david@epa.gov]
Subject: Fwd: Morning Energy, presented by Growth Energy: House climate caucus set for major midterm rewrite — NAFTA 2.0 lives? — Etzel out over 'allegations'

Sent from my iPhone

Begin forwarded message:

From: "POLITICO Pro Energy" <politicoemail@politicopro.com>
Date: October 1, 2018 at 5:50:12 AM EDT
To: <grantham.nancy@epa.gov>
Subject: Morning Energy, presented by Growth Energy: House climate caucus set for major midterm rewrite — NAFTA 2.0 lives? — Etzel out over 'allegations'
Reply-To: "POLITICO subscriptions" <reply-fe8813767c630d7c75-630326_HTML-814497992-1376319-0@politicoemail.com>

By Darius Dixon | 10/01/2018 05:47 AM EDT

With help from Alex Guillén and Daniel Lippman

MIDTERMS SET TO SHAKE UP THE HOUSE CLIMATE CAUCUS: A "blue wave" in this fall's midterm elections could decimate a small but growing group of Republicans who are members of the House Climate Solutions Caucus — and many climate change activists aren't exactly losing any sleep over that, Pro's Anthony Adragna reports. Advocates for climate action have hoped for the bipartisan group would prod Congress to address greenhouse gas pollution and the environmental catastrophes that scientists say will worsen in the coming decades.

Instead, many activists say the caucus has been an ineffective tool that only provides political cover for lawmakers facing increasing pressure from voters. The caucus has been unsurprisingly short on potential policy solutions and has set a fairly low bar for patting itself on the back: it considers one of its biggest achievements to be voting down an amendment that would have blocked a study of the national security impacts of climate change.

Eight of the Republican members are leaving Congress , while another 19 are in close races rated "Lean Republican" or worse by the Cook Political Report. A serious congressional overhaul could fell nearly a third of the 88 caucus members but, climate advocates say, it may pressure the remaining members more dedicated to getting results. "The caucus may get smaller if there's a large wave — and maybe some that have been seeking cover will be found out — but others [that survive] are going to be hardened and stronger and more committed I think," said Bob Inglis, a former South Carolina Republican lawmaker who now leads republicEn, which advocates for free-market solutions to climate change. "I'll take people of strong commitment over the wishy washy any day of the week."

EPA'S MERCURY ROLLBACK ON THE MOVE: The Trump administration has completed a detailed legal proposal to dramatically weaken the Obama administration's 2012 mercury rule

for power plants, The New York Times reports , citing a person who has seen the document but is not authorized to speak about it publicly. The proposal is expected to head to the White House in "the coming days," the Times says. The plan would not eliminate the mercury regulation entirely, but it will setup a new legal justification for the Trump administration to weaken it, and set the stage for repealing a rule that contributed to the closure of many old coal-fired power plants. Pro readers have already read about many of the big ticket items, here and here.

NAFTA LIVES? Trade ministers from the U.S., Mexico and Canada have reached an agreement to revamp the North American Free Trade Agreement, three sources briefed on the matter said Sunday night, according to our Pro Trade team . The preliminary deal is a major step toward completing one of Trump's signature campaign promises and gives the president a concrete policy win to tout on the campaign trail this fall. It also sets the stage for what is sure to be a high-stakes fight to get the agreement passed by Congress before it can become law. Mexico is eager to have President Enrique Peña Nieto sign the deal before his successor takes over Dec. 1. The New York Times also has some details about the late-breaking deal.

WELCOME TO MONDAY! I'm your guest host, Darius Dixon. A bunch of you answered Friday's trivia question correctly: Utah Republican Reed Smoot, an apostle in the Church of Jesus Christ of Latter-day Saints was the first Mormon to serve in the Senate. He was seated in February 1903, but hearings over whether to evict him because of the LDS Church's practice of polygamy — which was officially abandoned in 1890 — continued until a vote in 1907 that failed to reach the two-thirds majority needed to expel him. First across the finish line with the right answer was Kirk Johnson with the National Rural Electric Cooperative Association.

Now on to today's question: Sticking with Senate history, who was the first woman elected to the chamber *without* first serving in the House or filling an unfinished term, and what year was she elected? Send your tips, energy gossip and comments to ddixon@politico.com, or follow us on Twitter @dariusss, @Morning_Energy and @POLITICOPro.

WHAT KAVANAUGH IS MISSING: The very first set of oral arguments for the new term of the Supreme Court that begins today involves the Interior Department. *Weyerhaeuser Company v. Fish and Wildlife Service,* involves a challenge to the reach of the Endangered Species Act at a time when the Interior Department is taking action to scale back certain parts of the law. At issue is the Fish and Wildlife Service's 2012 designation of critical habitat for the endangered dusky gopher frog, a wart-covered amphibian that's believed to number less than 135 adults, most living around one pond in Mississippi. But FWS also listed 1,544 acres of the frogs' historic habitat in Louisiana, where it hasn't been spotted since 1965, but which FWS says will be important if the species is going to recover.

Timber giant Weyerhaeuser and other tenants of the affected Louisiana lands argue that the frog cannot return there because the conditions won't allow it to reproduce, and in the meantime, the company could suffer up to $34 million in lost development opportunities. FWS disagreed, and a split three-judge panel on the 5th Circuit Court of Appeals upheld the agency's decision. The Trump administration is defending the decision, putting environmentalists in the unusual position of aligning with this White House. Refresh yourself with Alex's energy-SCOTUS preview. Oral arguments start shortly after 10 a.m.

**** A message from America's ethanol producers and farm supporters at Growth Energy:** Lifting outdated regulations on E15, a 15 percent ethanol fuel blend, could generate two billion bushels of additional demand for American corn and deliver cleaner, more affordable options to consumers at the fuel pump. Learn why President Trump pledged to make it happen at https://e15now.com **

EPA: ETZEL OUSTED OVER 'ALLEGATIONS': The EPA's Office of Children's Health Protection director, Ruth Etzel, a pediatrician and public health specialist, was removed from her post Tuesday, the New York Times first reported last week. But on Friday, EPA followed up with us, saying she "was placed on leave to give the Agency the opportunity to review allegations about the Director's leadership of the office," according to a statement from EPA Chief of Staff Ryan Jackson. Etzel had headed the children's health office since 2015.

Well, let's not make this awkward: Today is Children's Health Day. EPA is holding an event at agency headquarters to celebrate, sans children's health director. Acting Administrator Andrew Wheeler, agency staff, the National Environmental Education Foundation, Diesel Technology Forum and the National School Transportation Association are slated to attend. The shindig starts around 11:40 a.m.

EPA TO GET EARFUL ON REPLACEMENT CARBON RULE: EPA **is hosting its one and only public hearing today** on its proposed replacement carbon rule for power plants, aka the Affordable Clean Energy rule. (In contrast, the Obama administration held four two-day hearings on its Clean Power Plan proposal in Washington, Pittsburgh, Atlanta and Denver.) Among the industry names on the speakers list are National Rural Electric Cooperative Association chief Jim Matheson and representatives from the American Petroleum Institute, Murray Energy and the National Mining Association. But the overwhelming number of voices, as often happens at EPA hearings, are environmental and public health advocates. EPA has said it plans to finish this rule in the "first part" of 2019, although it's not clear what that means. The agency will also have to ensure it responds to the myriad comments environmentalists are expected to submit.

Refresher: The proposal identifies a menu of technologies that states can require coal-fired power plants within their borders to use, if they choose to do anything at all, a major step back from the Obama administration's CPP. While it is expected to secure a small fraction of the emissions reductions the CPP would have, EPA says market trends that mirror the CPP's trajectory mean the electric sector will reach about the same carbon emissions savings. Also contained in the rule is language allowing any power plants required to install upgrades to bypass a key permitting system meant to prevent backsliding on local air quality, known as New Source Review, or NSR. EPA argued it was unfair to force utilities to go through NSR permitting, a potentially time-consuming and costly process, if the upgrades were being foisted on them.

If you go: People's Action and other groups say they have organized at least 300 protesters for an event outside the building as the hearing is starting. The hearing is at the Ralph Metcalfe Federal Building in Chicago and runs from 9 a.m. to 8 a.m. local time. Comments will still be accepted through Oct. 31.

THINGS MUSK SETTLE DOWN: Elon Musk, the colorful and much-talked-about head of Tesla Motors, has agreed to pony up $20 million and step down from the company's chairmanship for at least three years as part a settlement with the SEC. Tesla itself will have to pay another $20 million under the deal, which needs to be ratified in court. The SEC came after Musk for his August tweet boasting that he would take the company private at $420 a share and that he had secured funding. Musk knew that the potential transaction was "uncertain and subject to numerous contingencies" and that his statements "lacked an adequate basis in fact," the SEC said. Telsa, where Musk can stay on as CEO, saw its stock price jump six percent after the "misleading tweets." The company has also agreed to appoint two independent board members and put in place additional controls and procedures to oversee Musk's communication with investors.

CALIFORNIA AFFIRMS AUTO RULES, ASKS CARMAKERS TO SHARE COMPLIANCE PLANS: The California Air Resources Board on Friday approved a rule warning automakers that they will have to meet the current greenhouse gas emissions standards in California and its allied states, even after the Trump administration rolls back the federal rules. The so-called "deemed to comply" rule is the state's way of pushing back on the Trump administration, which proposed revoking California's authority to set its own stricter standards. CARB also sent letters to automakers asking them to share their compliance plans up through model year 2025 cars, including information on product plans, expected performance levels and sales expectations. The data demand could put automakers in the awkward position of explaining how they plan to follow rules the federal government says are too difficult to meet.

Car talks 'break down': The letter makes no bones about the chilly relations between CARB and the Trump White House. "CARB has been able to set robust vehicle standards due to highly effective technical collaboration and joint negotiations with both our Federal partners as well as with the regulated industry," the letter said. "That collaboration broke down with the most recent federal proposals, but we are prepared to discuss ways to further the conversation." The letter adds that CARB "is also prepared to operate separate programs if necessary, as the law allows."

OIL-SPIRACY: Anthony Mace, the former CEO of SBM Offshore, N.V., a Dutch oil services company, and Robert Zubiate, a former sales and marketing executive at SBM USA, were sentenced Friday for their involvement in what the Justice Department said was an international bribery conspiracy. Mace, a Briton, was sentenced to 36 months in prison and subject to a $150,000 fine, while Zubiate was sentenced to serve 30 months in prison and a fine of $50,000. The two men "played key roles in a massive bribery scheme that involved the payment of millions of dollars to public officials in exchange for lucrative oil-services contracts," Assistant Attorney General Brian Benczkowski said in a statement Friday.

REST IN LWCF: The Land and Water Conservation Fund officially expired on Sunday. Congress has tussled over reauthorizing the program for more than a year but the stars never aligned well enough to keep the program going. And everyone from the League of Conservation Voters to the Center for Western Priorities to the Coalition to Protect America's National Parks have made sure ME didn't forget. But the show's not over. LWCF, which uses revenue from offshore oil and gas drilling to protect and preserve national parks, forests and recreation areas, has started to make some real bipartisan progress. The Senate Energy and Natural Resources Committee is scheduled to mark up an LWCF reauthorization bill on Tuesday, and last month House Natural Resources Chairman Rob Bishop and Rep. Raúl Grijalva, Bishop's Democratic counterpart, unveiled legislation to keep the program going. That doesn't mean it'll be easy but an inch is an inch.

CANCELLATION CONSTERNATION: Sens. Tammy Duckworth and Dick Durbin are fed up with being stood up. The two Illinois Democrats are pressing acting EPA Administrator Andrew Wheeler for a meeting after the agency's Region 5 chief, Cathy Stepp, apparently canceled on them for the third time last week. "While we understand exigent circumstances may arise that result in unforeseen and uncontrollable schedule changes, Ms. Stepp's repeated pattern of cancellation with little notice or explanation is not acceptable to our constituents," the lawmakers wrote. They've asked for a response from Wheeler sometime today.

WEEKEND WEDDING — "Morissa Sobelson, Jamie Henn": New York Times: "Bill McKibben, who received a one-day marriage designation from Massachusetts, officiated, with Sue Halpern assisting with the Jewish elements of the ceremony. The bride, 31, is a doctoral candidate in public health at Harvard and an administrative fellow at Intermountain Healthcare ...

The groom, 34, ... [is] the strategic communications director for 350.org, an international climate campaign he co-founded that is focused on decreasing the use of fossil fuels, in New York."

QUICK HITS

— Documents revealed in Blankenship bid to have conviction tossed. Charleston Gazette-Mail.

— Stephen Brown launches consulting shop. E&E News.

— Canada's Husky Energy offers to buy MEG Energy in $5 billion deal. Reuters.

— Saudi Arabia tables $200 billion solar-energy plant with SoftBank. MarketWatch.

That's all for ME! It's going to be warm today: sunny with a high of 82 degrees.

HAPPENING THIS WEEK

MONDAY

No events.

TUESDAY

10 a.m. — Senate Energy and Natural Resources Committee markup to consider "pending legislation," including an LWCF reauthorization measure. 366 Dirksen.

WEDNESDAY

2:15 p.m. — Senate Environment and Public Works Committee hearing on the "Oversight of the Environmental Protection Agency's Implementation of Sound and Transparent Science in Regulation." Dirksen 406.

THURSDAY

8 a.m. — Energy in America: A Conversation with Senator Steve Daines. Center for Strategic & International Studies, 1616 Rhode Island Ave NW.

12 p.m. — American Waste: Paradigm Shifting Toward a Circular Economy. Environmental Law Institute, 1730 M Street, NW, Suite 700.

FRIDAY

No events.

**** A message from America's ethanol producers and farm supporters at Growth Energy:** President Trump said EPA rules against selling higher ethanol blends year-round are "unnecessary and ridiculous." Farmers, consumers, and retailers agree. Led by Growth Energy, rural champions are pushing to lift outdated EPA regulations on E15, boost farm income, and support manufacturing jobs at more than 200 biofuel plants across the heartland. Learn more at https://e15now.com **

To view online:
https://subscriber.politicopro.com/newsletters/morning-energy/2018/10/house-climate-caucus-set-for-major-midterm-rewrite-357587

Stories from POLITICO Pro

Will a blue wave wipe out climate caucus Republicans? Back

By Anthony Adragna | 10/01/2018 05:00 AM EDT

A blue wave in this fall's midterm elections could decimate the ranks of Republicans who are members of the House Climate Solutions Caucus — and many climate change activists don't think that would be bad thing.

Advocates for climate action had hoped the 88-member bipartisan group would prod Congress to address greenhouse gas pollution and the environmental catastrophes that scientists say will worsen in the coming decades. Instead, many activists say the caucus has been an ineffective tool that only provides political cover for lawmakers facing increasing pressure from voters.

"The caucus may get smaller if there's a large wave, and maybe some that have been seeking cover will be found out. But others [who survive] are going to be hardened and stronger and more committed I think," said Bob Inglis, a former South Carolina Republican lawmaker who now leads republicEn, which advocates for free-market solutions to climate change. "I'll take people of strong commitment over the wishy washy any day of the week."

Eight Republican members of the caucus are retiring or leaving Congress, while another 19 are in close races currently rated "Lean Republican" or worse by the Cook Political Report. Fifteen other lawmakers are in races rated "Likely Republican" or safe. (Two of the GOP members are non-voting delegates).

"It makes sense that some vulnerable members of the House would be in the Climate Solutions Caucus, because they might be interested in ways to move toward the middle on certain issues," Kyle Kondik, managing editor of Sabato's Crystal Ball, a nonpartisan newsletter produced by the University of Virginia's Center for Politics, said. "So one could see this group significantly reduced in the next election — perhaps close to halved if you include the retirees in the total and the GOP has a bad night."

Republicans dedicated to addressing climate change and many green groups think even a condensed group would maintain its importance and show other GOP candidates they can weather the political pressure without abandoning their support for climate change policies.

"This is a long-term project to get the Congress to a point where there's a bipartisan consensus on climate policy," Rep. Carlos Curbelo (R-Fla.), one of the founders of caucus, told POLITICO. "Especially if the House is evenly divided [or] even if Democrats have a majority, this group's going to be very important because that means they will likely need some Republicans to get things done."

The caucus has faced steady criticism as its numbers have grown that it accomplishes little and merely provides political cover for endangered Republicans who haven't supported measures to tackle climate change. Just four GOP members of the group — retiring Rep. Ileana Ros-Lehtinen (Fla.), Brian Fitzpatrick (Pa.), Mia Love (Utah) and Curbelo — opposed an anti-carbon tax

resolution in June. Fitzpatrick was the lone member of the group to co-sponsor a carbon tax proposal from Curbelo H.R. 6463 (115).

Some new additions have drawn scoffs, like Rep. Matt Gaetz (R-Fla.), who offered legislation eliminating the EPA earlier this Congress, and Rep. Fred Upton (R-Mich.), the former chairman of the Energy and Commerce Committee who once proposed blocking EPA's ability to regulate greenhouse gases. Unsurprisingly there has been little agreement on potential policy solutions among members of the group, which cites as one of its biggest achievements voting down an amendment that would have blocked a study on the national security impacts of climate change.

Environmental groups agree on the need for bipartisan efforts to craft durable climate policies, but many are hoping the election will be an opportunity to weed out those lawmakers that have used the caucus simply as political cover.

"The reality is the current leadership in the U.S. House and U.S. Senate is beholden to corporate polluters and the best way to fight climate change is to elect a new, pro-environment Congress this November and a new president come 2020," said Sara Chieffo, vice president for government affairs at the League of Conservation Voters.

Some GOP caucus members have been touting their membership in closely-watched races. Love touted her work in the caucus in a controversial mailer, while Rep. Mike Coffman (Colo.) cited his participation to Colorado Politics in responding to an attack from LCV. Critics say they're citing the group merely to "greenwash" their anti-environmental voting records.

Major groups like LCV have so far stayed out of some races, like Curbelo's and Fitzpatrick's. And those closely watching those races argue the GOP candidates' advocacy on climate change and clean energy could help tip the scales in a tough political environment for Republicans.

"I would argue this forward-looking approach on climate change and clean energy has actually helped them be competitive in a tough political environment," James Dozier, executive director of center-right Citizens for Responsible Energy Solutions, said. "It'll be on the shoulders of Republicans in the caucus returning next cycle and the Democrats returning next cycle to double down and keep the momentum moving."

Thirteen Republican members of the caucus are currently in races rated tossup or worse: Reps. Coffman, John J. Faso (N.Y.), Claudia Tenney (N.Y.), Scott W. Taylor (Va.), Leonard Lance (N.J.), Steve Knight (Calif.), Mimi Walters (Calif.), Peter Roskam (Ill.), Tom MacArthur (N.J.), Kevin Yoder (Ky.), Barbara Comstock (Va.), Erik Philip Paulsen (Minn.) and Fitzpatrick. Six others — Curbelo, Love, Don Bacon (Neb.), Chris Collins (N.Y.), Randy Hultgren (Ill.) and Rodney Davis (Ill.) — are in races rated as "Lean Republican."

Some greens argue that all Republicans, even Curbelo, should be voted out, pointing to the South Florida Republican's vote in favor of the tax bill that opened up the Arctic National Wildlife Refuge to drilling. (Curbelo joined 11 other Republicans in a letter opposing that provision in the bill).

"It would be a good thing if the caucus shrinks, and then either establishes membership criteria or withers on the vine," said RL Miller, founder of the super PAC Climate Hawks Vote, which backs candidates advocating aggressive climate action. "[Curbelo] has shown no ability to bring along other Republicans, so why not replace him with a more reliable pro-climate vote?"

But a more common view is the voices of those like Curbelo and Fitzpatrick are essential if Congress is ever to enact durable policies to address climate change.

"[Losing them] would be really bad," Inglis said. "We're holding our breath that some of our climate champions make it through and that people in their districts step them into 'solutionville' and out of the ditches."

To view online click here.

Back

EPA to revisit Obama mercury rule with eye on use of co-benefits Back

By Alex Guillén | 08/29/2018 05:29 PM EDT

EPA will reconsider a key justification for the Obama administration's 2012 mercury rule for power plants, the agency confirmed today, a move that could lead to a repeal of the regulation that contributed to the closure of many old coal-fired power plants.

Spokeswoman Molly Block said the agency will send a draft proposal soon to the Office of Management and Budget for review. EPA's proposal will reconsider the so-called appropriate and necessary finding, an early part of the rulemaking process where the Obama-era EPA justified the need to issue the regulation.

The Supreme Court struck down EPA's original finding in 2015, although the rest of the rule survived legal challenges and the court allowed it to remain in effect. The Obama administration issued an updated version of the finding that addressed the high court's ruling.

Also under reconsideration are the underlying mercury standards themselves, according to Block. Though utilities paid for and installed pollution controls to meet the regulation years ago, critics have suggested they could reduce operating expenses for coal-fired power plants if the rule were repealed and the controls turned off.

"EPA knows these issues are of importance to the regulated community and the public at large and is committed to a thoughtful and transparent regulatory process in addressing them," she said.

The mercury rule, known as the Mercury and Air Toxics Standard or the utility MACT, has been a longtime target of the coal industry because it contributed to the shutdown a significant swath of coal plants, since many of the nation's oldest and dirtiest plants could not justify paying for expensive mercury controls.

Challengers like Murray Energy — the Ohio coal company whose owner, Bob Murray, has met several times with President Donald Trump and his cabinet — complained that the rule relied heavily on "co-benefits" from reduced particulate matter pollution instead of the limited quantifiable benefits from reduced mercury emissions.

"One of a number of issues EPA is assessing in the context of the appropriate and necessary analysis is whether and how to account for co-benefits," Block said in an email.

The major utility industry groups in July urged EPA against revoking the mercury rule because many utilities need the rule in place to justify recovering potentially billions of dollars in costs under ongoing state-level rate cases. At least one Republican, Sen. Lamar Alexander (R-Tenn.), has echoed that call.

After the Obama administration issued its updated "appropriate and necessary" finding in 2016, Murray and several states sued, arguing that EPA cannot rely on co-benefits to justify its regulations. The Obama EPA argued that it had other justifications beyond a direct cost-benefit comparison.

The court put that lawsuit on hold last year after EPA said it was reviewing the matter. Separately, EPA is considering changing the rules governing its cost-benefit analyses, including potentially discounting such co-benefits, a move that would make many future regulations harder to rationalize.

Once OMB receives the proposal, its review likely will take 60-90 days, Block said. That would place the rule's public release in November or December.

Bloomberg first reported on EPA's plans on Wednesday.

To view online click here.

Back

U.S. reaches trade deal with Canada and Mexico, providing Trump a crucial win Back

By Adam Behsudi, Alexander Panetta and Doug Palmer | 09/30/2018 10:47 PM EDT

Trade ministers from the U.S., Mexico and Canada have reached a deal to revamp the North American Free Trade Agreement, the Trump administration announced late Sunday night.

The new pact, which is being called the U.S.-Mexico-Canada Agreement, is a major step toward completing one of Trump's signature campaign promises and gives the president a concrete policy win to tout on the campaign trail this fall. It also sets the stage for what is sure to be a high-stakes fight to get the agreement passed by Congress before it can become law.

The Trump administration already formally notified Congress at the end of August of its plans to sign a new pact and faced a deadline of the end of September to provide a draft of the agreement.

U.S. Trade Representative Robert Lighthizer said in late August that officials are planning to sign with their Canadian and Mexican counterparts by the end of November — a date that would also satisfy Mexico, which is eager to have current President Enrique Peña Nieto sign the deal before his successor takes over Dec. 1.

"It's a great win for the president and a validation for his strategy in the area of international trade," a senior administration official said on a call with reporters late Sunday.

People briefed on the outlines of a revamped deal described changes in language governing dairy imports, dispute resolution between countries, limits on online shopping that can be done tax free, and limits on the U.S. threat of auto tariffs.

"It's a good day for Canada," Prime Minister Justin Trudeau said as he left the office late Sunday night. He said he would save other comments for an official announcement on Monday.

A formal vote in Congress won't be held until 2019, and it is still an open question whether lawmakers — including members of the president's own party who have often clashed with him on trade — will fall in line to support the deal.

Republicans are expected to pay close attention to the final details regarding dispute settlement and intellectual property issues, while Democrats will likely be looking for stricter labor and environmental standards.

Lawmakers from both parties, along with powerful business and industry groups, are also examining whether new provisions, such as stricter automotive rules, may end up making life more difficult for domestic companies rather than easier.

A senior administration official highlighted the "great result" on dairy issues that was achieved. The pact opens up the Canadian dairy market to U.S. exports at a level higher than the 3.25 percent market share the Obama administration negotiated under the Trans-Pacific Partnership.

The official also said that Canada agreed to eliminate a recent milk-ingredient pricing program that U.S. farmers complained had dried up demand for their exports of the product.

In exchange, Canada was able to preserve dispute settlement language. Canada has historically insisted on an international panel to judge whether the U.S. improperly uses duties as a commercial weapon.

Canada also agreed to an "accommodation" to its auto exports in response to tariffs Trump is expected to impose on vehicle imports for national security reasons, the senior administration official said. That arrangement will likely involve Canada agreeing to a side deal that would restrict its auto exports to a level well above the current volume of trade that flows south of the border, sources close to the talks said.

Lighthizer had hoped to reach an agreement by the end of 2017, a timeline that was extended until the end of March. The three nations failed to make that deadline but have been meeting almost continuously in Washington since as they sought to reach compromises on issues that have been both technically and politically challenging for all three countries.

Now, depending on the outcome of November's midterm elections, control of the House of Representatives may well turn over to Democrats, who may have little incentive to work with a president from the opposite party to ratify a deal that they may not like.

One strategy that circulated earlier this year was a plan to force a vote by withdrawing from the existing NAFTA agreement before the new one takes effect — thus forcing members of Congress to choose between the renegotiated deal or no deal at all.

Trump indicated last month that he would pursue such tactics, telling reporters in the Oval Office that he would "be terminating the existing deal and going into this deal."

Several prominent lawmakers, however, expressed cautious optimism with the new pact.

"Maintaining a trilateral North American deal is an important prerequisite to preserving and extending those gains and the Trump administration has achieved that goal," said Sen. Orrin Hatch (R-Utah), chairman of the Senate Finance Committee. "I look forward to reviewing this deal to confirm it meets the high standards of Trade Promotion Authority."

Under the TPA, Congress will take a straight up-or-down vote without amendments. Those rules also have a series of other steps that also must be followed before the deal can be passed.

Even without congressional approval, having the preliminary deal in hand will give the administration and vulnerable Republicans up for reelection at least the skeleton of a policy achievement to use on the trail.

Officials have said that changes made to automotive rules to increase the amount of content that must be sourced from within NAFTA countries should play well in manufacturing states concerned about the offshoring of jobs.

Meanwhile, leading congressional Democrats say they're not yet convinced that the new deal represents a significant shift from past trade policies that have rarely earned their support.

"The bar for supporting a new NAFTA will be high," said Rep. Richard Neal (D-Mass.), the ranking member on the House Ways and Means Committee.

Democrats and their backers in labor unions and environment groups will be looking for a deal they feel can be adequately enforced in terms of upholding worker rights and environmental protections.

Sen. Ron Wyden (D-Ore.) said the ability of the deal to enforce those provisions will be a "crucial test" for a new agreement.

The country's largest organized labor group also stressed that it will be studying the labor language closely.

"The text we have reviewed, even before the confirmation that Canada will remain part of NAFTA, affirms that too many details still need to be worked out before working people make a final judgment on a deal," AFL-CIO President Richard Trumka said in a statement.

It remains unclear at this point what the preliminary deal means for the steel and aluminum tariffs the Trump administration has put in place as well as the retaliatory duties Canada and Mexico imposed. Many industry sources and others close to the talks have long expected that reaching a deal would lead the U.S. to lift the tariffs, a move that would lead Canada and Mexico to follow suit.

A senior U.S. administration official said a possible exemption for Canada remains on a separate track from the broader trade negotiations and there was no agreement yet on that issue.

Mexican Economy Secretary Ildefonso Guajardo said in late August that those tariffs — as well as Mexico's retaliatory duties on $3 billion in U.S. products like agricultural goods — would be enforced until the countries are closer to signing an agreement later this year.

Sabrina Rodriguez and Megan Cassella contributed to this report.

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Supreme Court to take on tadpoles and tailings in new term Back

By Alex Guillén | 09/26/2018 05:02 AM EDT

The Supreme Court will begin its new term on Monday with several high-profile environmental cases that delve into the federal government's powers to protect endangered species and regulate mining.

The very first case of the term looks at the controversial Endangered Species Act, and could shrink the federal government's ability to set aside land and restrict development. And in early November, Virginia will defend its decades-old uranium mining ban from a company seeking to tap reserves worth billions of dollars.

The Supreme Court will also hear a gas tax case with potentially hundreds of millions of dollars in revenue for states at stake. Here's a guide to those cases, as well as pending challenges to keep an eye on.

ENDANGERED SPECIES ACT
The case: 17-71, *Weyerhaeuser Company v. Fish and Wildlife Service*
Oral arguments: Oct. 1

This case challenges the reach of the Endangered Species Act at the same time the Interior Department is taking action to scale back certain parts of the law.

At issue is the Fish and Wildlife Service's 2012 designation of critical habitat for the endangered dusky gopher frog, a wart-covered amphibian that's believed to number less than 135 adults, most living around one pond in Mississippi. In addition to those occupied Mississippi areas, FWS listed 1,544 acres of the species' historic habitat in Louisiana, where it hasn't been spotted since 1965, but which FWS says will be important if the species is going to recover.

Timber giant Weyerhaeuser and other tenants of the affected Louisiana lands argue that the frog cannot return there because the conditions won't allow it to reproduce, and in the meantime, the company could suffer up to $34 million in lost development opportunities. FWS disagreed, arguing that reasonable restoration efforts could make the area capable of supporting a frog population.

A split three-judge panel on the 5th Circuit Court of Appeals upheld FWS's decision, saying that the agency had reasonably concluded that the currently occupied habitat alone would not ensure the frog's conservation. The full 5th Circuit rejected a rehearing request by a close 6-8 decision, with the dissenting judges arguing that "the ramifications of this decision for national land use regulation and for judicial review of agency action cannot be underestimated."

The Trump administration is defending the decision, arguing that FWS "properly determined" the Louisiana land is critical for the frog's conservation. That has put environmentalists in the unusual position of backing up the Trump administration.

"The way the provision has been applied throughout its entire history, what the Fish and Wildlife Service did here is not at all revolutionary," said Bill Snape, senior counsel for the Center for Biological Diversity, which filed a brief supporting the Trump administration's defense.

Snape said that the dispute in this case was focused on specific scientific facts, but an adverse ruling could mean revisiting conservation plans for other species. The ruling will also be scrutinized for signs that the Supreme Court appears willing to limit the ESA in future cases.

Given the timing of the case, Supreme Court nominee Brett Kavanaugh — should he be confirmed by the Senate — will not have time to be seated for oral arguments.

If the court were to deadlock 4-4, the justices could wait for Kavanaugh to be seated and have the case re-argued with the full nine-justice court. That happened for several cases upon the arrival of Justice Neil Gorsuch in 2017, including one in which Gorsuch sided with the court's liberal wing to strike down a law allowing the government to deport immigrants who commit violent crimes.

Snape said the potential for Kavanaugh to join this case made him more "nervous" about the outcome because Kavanaugh frequently ruled against species protections in cases before the District of Columbia Circuit.

"I think the [FWS] behaved well here and has a strong leg to stand on, but I definitely am paranoid the court has something up its sleeve," Snape said.

While the high court mulls this habitat issue, Republicans are pursuing administrative and legislative changes to ESA as well.

The Interior Department in July floated several key changes to how it administers ESA, including the listing and critical habitat designation processes, protections extended to species listed only as threatened, and the consultation process for other agencies to properly consider ESA when writing regulations.

And the House Natural Resources Committee holds a hearing on Wednesday on a package of nine ESA-related bills touching on "take" permits, state input on designations, petition backlogs, habitat in water diversion areas and more. The ESA has long been a target of Chairman Rob Bishop (R-Utah), who said in 2017 that he "would love to invalidate" the law.

URANIUM MINING
The case: 16-1275, *Virginia Uranium, Inc. v. Warren*
Oral arguments: Nov. 5

The fight over Virginia's 36-year-old legislatively enacted ban on uranium mining highlights a power struggle between the states and the federal government.

The ban is under attack from Virginia Uranium, which owns a deposit of 119 million pounds of ore in Pittsylvania County worth about $6 billion. The company has pointed to the Atomic Energy Act to argue that nuclear-related activities are supposed to be overseen by the federal government, so Virginia lacks the power to ban uranium mining.

The Trump administration sided with the mining company, arguing that "Congress has entrusted such nuclear-safety regulation exclusively to the federal government."

Nils Diaz, a former Republican NRC chairman who sat on the commission from 1996 to 2006, agreed that the Nuclear Regulatory Commission should be in charge of uranium mining. He joined 13 other former senior NRC officials in a brief this month urging the court to side with the company.

The NRC "actually can provide a more uniform, consistent and much better program for the protection of public health and safety" by regulating uranium mining instead of the states, Diaz said in an interview.

The Supreme Court in 1983 weighed in on federal nuclear preemption in a case that helps guide this dispute. The unanimous ruling, related to an effective ban in California on new nuclear power plants, concluded that the AEA preempts state law on any matters specifically regulated under the federal law, such as nuclear plant safety and radiological protections.

Virginia has conceded that its uranium mining ban was motivated by concerns about tailings harming groundwater, but the state successfully argued in the lower courts that its motivation doesn't matter. The Atomic Energy Act doesn't tell the NRC to regulate conventional uranium mining, and thus cannot preempt Virginia's ban, according to the state.

"There is no doubt that Congress could regulate uranium mining directly or limit States' ability to do so. But Congress has not enacted such a law," Virginia wrote in a brief.

Ten other states — as politically diverse as Texas, Massachusetts, Hawaii and Indiana — teamed up to support Virginia, arguing that the AEA doesn't explicitly override states' authority to regulate uranium mining and that broadening the law's preemption language to cover any activity related to nuclear power would be a major overreach.

This case could provide a hint at where the Supreme Court is heading on the federal-state power dynamic as California and other states are preparing to enact more stringent environmental rules than the federal government on issues such as auto emissions.

"Preemption is going to be more testy as we go on, at least for a while, because we do have states, particularly dealing with climate change, that are really looking to pick up the mantle and run with it," said Sidney Shapiro, a law professor at Wake Forest University who joined a legal scholars' brief supporting Virginia.

"What scared me was this idea that the court would continue this agenda of sort of aggrandizing federal power to block states that want to protect their citizens," he added.

GAS TAX EXEMPTION
The case: 16-1498, *Washington State Department of Licensing v. Cougar Den, Inc.*
Oral arguments: Oct. 30

Washington State is hoping to persuade the Supreme Court to overturn a state court's decision exempting an Indian-owned business from paying tens of millions of dollars in taxes over fuel it imports into the state and sells.

The fuel wholesaler, Cougar Den, successfully cited a provision from an 1855 treaty with the U.S. that guarantees free travel on public highways for trade to avoid paying the state's gas tax.

The Washington Supreme Court ruled last year that the provision is read broadly to exempt the company from paying gas taxes, even if the fuel isn't imported via a highway.

"Nothing in the Yakama Treaty justifies creation of this expansive new right to avoid taxes on goods simply by transporting them by highway," Washington wrote in a brief. The Trump administration is backing Washington state, and has asked to be given some argument time of its own.

PENDING PETITIONS TO WATCH

Here are some of the energy cases pending on the court's docket to keep an eye on. The court could decide whether to hear some of these cases as early as this week; others could be pending for months.

Groundwater: A deep divide has grown among appellate courts over the past year in cases relating to whether pollution traveling from an industrial site through groundwater to a river or lake should be covered under the Clean Water Act. Two cert petitions are sitting before the Supreme Court stemming from cases out of the 9th and 4th Circuits that found liability for pollution that originated from an underground injection well and a gasoline pipeline and ultimately made its way to larger downstream bodies of water.

But in recent weeks three new decisions out of the 4th and 6th Circuit Courts have cut the other direction. On Monday, the 6th Circuit Court of Appeals overturned a decision that would have required the Tennessee Valley Authority, the country's largest public utility, to move a massive amount of coal ash. And in a related decision, the court upheld a lower court's decision finding that the Clean Water Act did not cover coal ash leaks from a Kentucky Public Utilities site, although it did rule that the utility could be liable under a separate cleanup law.

The legal issue has drawn attention as the cases have percolated up through appellate courts. Eighteen largely Republican attorneys general and business groups like the U.S. Chamber of Commerce joined the 6th Circuit cases on the side of utilities, while four blue state attorneys general joined environmental groups. Former Solicitor General Paul Clement, a much-sought-after Supreme Court litigator, argued the Kentucky case. The cases are: 18-260, *County of Maui v. Hawai'i Wildlife Fund*, and 18-268, *Kinder Morgan Energy Partners v. Upstate Forever.*

More uranium mining: The Supreme Court will likely decide soon whether to take up a challenge to the Obama administration's 2012 moratorium on new uranium mining claims on a million acres around the Grand Canyon. The moratorium has been upheld by the lower courts and the Trump administration continues to defend the decision. 17-1286, *National Mining Association v. Zinke.*

HFCs: Manufacturers Honeywell and Chemours have asked the Supreme Court to reverse a 2017 District of Columbia Circuit opinion (coincidentally, written by Judge Kavanaugh before his Supreme Court nomination) striking down a key part of an Obama administration rule phasing out hydrofluorocarbons, a potent greenhouse gas used as a coolant in refrigerators and air conditioners. Kavanaugh would be expected to recuse himself if he were to be on the high court that hears the appeal. 17-1703, *Honeywell v. Mexichem.*

Wind turbines: The justices asked the Trump administration to weigh in on a dispute over wind turbine construction on tribal lands. The 10th Circuit Court of Appeals ruled that a wind farm developer needed a mineral lease from the Osage Nation in addition to permits from Interior because the process of anchoring a wind turbine qualifies as "mining" under federal law. The

Trump administration likely will file its brief later this year. 17-1237, *Osage Wind v. Osage Minerals Council.*

Superfund: Oil company Atlantic Richfield has asked the Supreme Court to review a Montana Supreme Court decision allowing residents to pursue their own state-law claims against the company for damages related to a Superfund site it owns, the Anaconda copper smelter. The company, which has already spent hundreds of millions of dollars cleaning up the site under EPA's direction, argues that federal law bars local residents' lawsuits from interfering with Superfund cleanups. 17-1498, *Atlantic Richfield Co. v. Christian.*

Lead paint: Paintmakers Sherwin-Williams and ConAgra are appealing a California court's order that they pay as much as $730 million in damages related to ads dating back more than a century that did not reveal the health risks of lead paints. Many companies are now concerned that if the judgment is upheld, they could be held liable for their advertising decades from now if a product turns out to have been potentially hazardous. 18-84, *ConAgra Grocery Products Co. v. California.*

Annie Snider contributed to this report.

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EPA confirms removal of head of children's health office Back

By Annie Snider and Alex Guillén | 09/28/2018 05:22 PM EDT

EPA has confirmed that the head of its Office of Children's Health Protection has been put on administrative leave while the agency reviews "allegations" about her leadership.

"Although EPA does not customarily comment on personnel matters, due to circulating misinformation, the Director of EPA's Office of Children's Health Protection was placed on leave to give the Agency the opportunity to review allegations about the Director's leadership of the office," EPA Chief of Staff Ryan Jackson said in a statement.

Ruth Etzel, a pediatrician and public health specialist who has headed the EPA office since 2015, was removed from her post Tuesday, the New York Times first reported. In an email sent to the head of a nonprofit, Etzel called herself the "fall guy" for an effort to "disappear" the children's health office and said that EPA leaders had been conducting "guerilla warfare" against her office for 5 months, according to BuzzFeed News.

Prior to joining EPA, Etzel worked at the World Health Organization's Department of Public Health and Environment in Geneva from 2009-2012, according to her biography at George Washington University, where she lectures on environmental health. Before that, she served as a commissioned officer in the U.S. Public Health Service, working out of various agencies, including the Centers for Disease Control and Prevention, the Agriculture Department and the Indian Health Service.

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Bishop offers warning shot ahead of Senate LWCF markup Back

By Anthony Adragna | 09/27/2018 05:04 AM EDT

The key architect of a bipartisan House bill to permanently reauthorize the Land and Water Conservation Fund has a warning for his Senate counterparts: Don't expect to turn the program into an entitlement.

Making spending from the fund mandatory — as envisioned in a bipartisan Senate bill — would "probably blow it up in the House," Natural Resources Chairman Rob Bishop (R-Utah) said Wednesday. The Senate Energy and Natural Resources Committee is scheduled to mark up an LWCF reauthorization bill next Tuesday.

The popular conservation program uses revenue from offshore oil and gas drilling to protect and preserve national parks, forests and recreation areas. It will expire Sept. 30, a few days after the House is set to adjourn until after the election without acting on the bill introduced by Bishop and his ranking member, Raúl Grijalva (D-Ariz.), H.R. 502 (115) . Their bill would require money from the fund to be distributed through annual appropriations bills, unlike a bipartisan counterpart in the Senate.

LWCF supporters typically prefer mandatory funding for the program because they say Congress chronically shortchanges it — creating a growing backlog of projects — and because the appropriations cycle has been so unpredictable. Bishop and other Republicans, meanwhile, are skeptical of mandatory spending because they do not want to give up lawmakers' ability to exercise oversight on how the government spends its money.

When the House pair unveiled their bill earlier this month, Grijalva said he was willing to compromise on the mandatory spending aspect to get Bishop on board with a permanent reauthorization for the fund.

After the program's authorization expires Sunday, oil and gas companies will stop paying into the fund, but unspent funds already collected can still be doled out.

The agenda for next week's Senate committee markup has not been finalized but is expected to include S. 569 (115), the LWCF reauthorization bill introduced by Sen. Maria Cantwell (D-Wash.) with 47 cosponsors, including six Republicans. Energy Chairwoman Lisa Murkowski (R-Alaska), who also chairs the Appropriations subcommittee responsible for the Interior Department, is not a co-sponsor of the bill but has voiced support for moving a reauthorization before the end of the year.

Senators are staying mum about their disagreements with Bishop over whether LWCF should be subject to mandatory or discretionary appropriations, and supporters of Cantwell's bill have largely stopped short of endorsing the House version. A spokesperson for Sen. Richard Burr (R-N.C.), a co-sponsor of Cantwell's bill, declined to comment on the dispute. Sen. Steve Daines (R-Mont.) another co-sponsor, "believes permanent reauthorization and full funding are both critical to the program's success in Montana and the rest of the nation," a spokeswoman said.

Outside groups, including the League of Conservation Voters, plan to keep pushing for a full, dedicated funding approach for LWCF contained in Cantwell's bill as the two chambers seek to iron out a final deal in the lame duck, said Alex Taurel, LCV's conservation program director.

Bishop said he is confident lawmakers will be able to reach a deal in the lame-duck session.

"We will solve the problem before the end of the year," he said. "Whether it's Sept. 30 or Dec. 1 doesn't make a damn bit of difference."

Backers, though, say it can take years to get projects executed and the uncertainty about future funding could delay their completion or prevent them from getting off the ground.

"For folks inside the beltway like Bishop it may seem like an artificial deadline, but I think for folks on the ground when they hear congressional gridlock... that level of uncertainty does have real impact and may pervade the process and slow things down at the local level," Jonathan Asher, senior representative for government relations with the Wilderness Society, told POLITICO. "We're a little behind the eight ball right now. We wish this could have gotten wrapped up before the end of authorization."

While the fund's pending expiration has not been much of an issue in this year's midterm election campaigns, environmental advocates and some Democrats blame Republicans for being in this position.

"If LWCF expires, I think there's going to be a lot of blame to go around," Taurel said. "Republican supporters, particularly in the House, haven't pushed their leaders hard enough to save this program."

A spokeswoman for Interior Secretary Ryan Zinke said "the Secretary absolutely supports permanent reauthorization." He added in a tweet last week he's "hopeful for reauthorization."

The deal reached by Bishop and Grijalva would ensure 40 percent of LWCF funds go state grants and 40 percent go to federal programs.

That measure cleared the House Natural Resources Committee, but Bishop now hopes to pair it with other bills as part of a lame-duck lands package. The lame-duck deal is likely to include another compromise bill, H.R. 6510 (115), that would create a dedicated funding source to address billions in the maintenance backlog on the nation's public lands, but Democrats fear the Utah Republican will attempt to add other controversial measures that would cost their support.

The Senate Energy and Natural Resources Committee markup is also expected to include legislation addressing the national parks maintenance backlog, S. 3172 (115).

There remain numerous question marks about how the process will proceed. Murkowski may see the parks maintenance and LWCF package as an opportunity to advance her long-stalled energy bill, S. 1460 (115).

One thing that is clear: A group of dedicated Senate LWCF backers, led by Burr, won't let up in their quest to get the program reauthorized.

"It's unfortunate that we are here today," Burr said Wednesday. "[But] I believe we will ultimately win this fight because our colleagues know this is the right thing to do ... We're going to be relentless."

It's not clear what Burr's next move will be — Senate leaders are poised to press on with consideration of a broad water resources package, S. 3021 (115), even if he drags out the procedural hurdles — but he could opt to hold up other legislation. Asher said "predicting Senator Burr is always a risky venture" but expected he would "intelligently put pressure where the best leverage point would be."

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POLITICOPRO

This email was sent to grantham.nancy@epa.gov by: POLITICO, LLC 1000 Wilson Blvd. Arlington, VA, 22209, USA

Message

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Sent: 9/28/2018 3:40:36 PM
To: Vizian, Donna [Vizian.Donna@epa.gov]
CC: Grantham, Nancy [Grantham.Nancy@epa.gov]
Subject: Re: OCHP Language

Can you call my cell? Thx ng

Sent from my iPhone

On Sep 28, 2018, at 9:03 AM, Vizian, Donna <Vizian.Donna@epa.gov> wrote:

> That is my understanding. It's up to Ryan and Henry. I would ensure they are ok with it
>
> On Sep 28, 2018, at 7:25 AM, Grantham, Nancy <Grantham.Nancy@epa.gov> wrote:
>
> > This would be for use in press responses? Thanks ng
> >
> > **Nancy Grantham**
> > **Office of Public Affairs**
> > **US Environmental Protection Agency**
> > **202-564-6879 (desk)**
> > **Ex. 6 (mobile)**
> >
> > **From:** Vizian, Donna
> > **Sent:** Thursday, September 27, 2018 6:53 PM
> > **To:** Grantham, Nancy <Grantham.Nancy@epa.gov>; Konkus, John <konkus.john@epa.gov>
> > **Subject:** FW: OCHP Language
> >
> > Sent this to Henry and Ryan
> >
> > **From:** Wulffen, Rebecca
> > **Sent:** Thursday, September 27, 2018 5:00 PM
> > **To:** Vizian, Donna <Vizian.Donna@epa.gov>
> > **Cc:** Blake, Wendy <Blake.Wendy@epa.gov>; Meighan, Alexandra <Meighan.Alexandra@epa.gov>; Corbett, Krysti <Corbett.Krysti@epa.gov>; Coomber, Robert <coomber.robert@epa.gov>; Patterson, Nicole <Patterson.Nicole@epa.gov>
> > **Subject:** OCHP Language
> >
> > Donna,
> >
> > Per Henry's request this morning, here is language for release regarding the OCHP Director being placed on admin leave. I am off tomorrow, but will have my phone and monitoring emails if you need anything:
> >
> > EPA remains highly committed to the success of its Office of Children's Health Protection (OCHP) and OCHP's important priorities. As part of EPA's

commitment to OCHP, Agency leadership is taking steps to ensure the continued success of OCHP and its critical mission, including evaluating options regarding OCHP's future leadership. Children's Health continues to be an extremely important program for the Agency.

The Director, OCHP, was placed on leave to give the Agency an opportunity to review allegations presented regarding the Director's leadership of the office.

Rebecca Wulffen
Assistant General Counsel
U.S. Environmental Protection Agency
Office of the General Counsel
General Law Office, Employment Law Practice Group
Phone (202) 564-4858

Message

From: Grantham, Nancy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=12A3C2ED7158417FB0BB1B1B72A8CFB0-GRANTHAM, NANCY]
Sent: 9/27/2018 10:05:27 AM
To: Gray, David [gray.david@epa.gov]
Subject: Fwd: Morning Energy, presented by National Clean Energy Week: Permanent Conservation? — EPA's disappearing children's office — Vogtle not dead yet

Sent from my iPhone

Begin forwarded message:

From: "POLITICO Pro Energy" <politicoemail@politicopro.com>
Date: September 27, 2018 at 5:57:49 AM EDT
To: <grantham.nancy@epa.gov>
Subject: Morning Energy, presented by National Clean Energy Week: Permanent Conservation? — EPA's disappearing children's office — Vogtle not dead yet
Reply-To: "POLITICO subscriptions" <reply-fe8913767c650c7877-630326_HTML-814497992-1376319-0@politicoemail.com>

By Ben Lefebvre | 09/27/2018 05:55 AM EDT

With help from Annie Snider and Matt Daily

ON A PERMANENT CONSERVATION: House Natural Resources Chairman Rob Bishop (R-Utah), he of the compromise extending the Land and Water Conservation Fund, has a warning for his friends in the Senate - don't try to make this spending mandatory. Bishop is a key player in trying to complete a reauthorization of the fund, which takes part of the money raised through oil and gas sales on federal land and then spends it on conservation projects. But making spending from the fund mandatory — as envisioned in a bipartisan Senate bill — would "probably blow it up in the House," he tells Pro's Anthony Adragna.

Listen all y'all: Bishop's stance could add significant additional hurdles to the fund's reauthorization. LWCF supporters prefer mandatory funding for the program because they say Congress chronically shortchanges it — creating a growing backlog of projects — and because the appropriations cycle has been so unpredictable, Anthony writes. A group of dedicated Senate LWCF backers led by Sen. Richard Burr (R-N.C.) say they won't let up in their quest to get the program reauthorized. "I believe we will ultimately win this fight because our colleagues know this is the right thing to do," Burr said on the Senate floor. "We're going to be relentless." The Senate Energy and Natural Resources Committee is scheduled to mark up an LWCF reauthorization bill next Tuesday.

GOOD MORNING! I'm your host, Ben Lefebvre, this Thursday morning as Kelsey Tamborrino takes a well-deserved vacation in London. Christi Tezak at ClearView Energy Partners was the first to correctly chime in that the Ogallala Aquifer flows under South Dakota, Nebraska, Wyoming, Colorado, Kansas, Oklahoma, New Mexico and Texas. Today's question: What is the active oil and gas production site due north of Hilo, Hawaii? Don't forget to send your tips, energy gossip and comments to blefebvre@politico.com, asnider@politico.com and

ddixon@politico.com. And remember to follow us on Twitter @Morning_Energy and @POLITICOPro.

President Donald Trump says a red wave is coming on election day. Is he right or will the tide turn blue? Compete against the nation's top political minds in the POLITICO Playbook Election Challenge, by correctly picking the winning candidates in some of the most competitive House, Senate and gubernatorial races in the country! Win awesome prizes and eternal bragging rights. Sign up today! Visit politico.com/playbookelectionchallenge to play.

WHERE'S ZINKE? Interior Secretary Ryan Zinke is in Asheville, N.C., to announce the results of the latest opioid task force operation.

CHILDREN'S HEALTH OFFICE ON THE ROPES? The ousted head of EPA's Office of Children's Health Protection wrote in an email to the leader of a nonprofit obtained by BuzzFeed News that "I appear to be the 'fall guy' for their plan to 'disappear' the office of children's health." Ruth Etzel, a pediatrician and epidemiologist, was put on administrative leave late Tuesday, for reasons she said in the email were not disciplinary. "It had been apparent for about 5 months that the top EPA leaders were conducting 'guerrilla warfare' against me as the leader of OCHP, but now it's clearly official," Etzel wrote, according to BuzzFeed.

An EPA reorganization chart recently shared with regional offices eliminated regional children's health coordinator positions - a move that some public health advocates saw as an opening gambit in a bid to shut down the office. The office, which was created under the Clinton administration, and has the right to formally weigh in on all of the major regulatory actions taken by the agency, including Trump administration rollbacks that EPA's experts estimate will harm human health.

The agency declined to comment on personnel matters, but spokesman John Konkus said in a statement that "EPA Headquarters has a number of specialty focused offices including the children's health, environmental justice, civil rights, and small business offices and these offices will continue to be a part of headquarters and regional organizations."

Real world example: Less than 24 hours after Etzel's removal, a top federal toxicologist told senators that research has found children to have higher levels of exposure to perfluorinated compounds, the nonstick chemicals tainting water supplies across the country, than their parents. EPA, which is in the process of developing an action plan for dealing with the chemicals, has been criticized by public health advocates for not lowering its safety threshold as new research has indicated the compounds can pose dangers at even lower levels.

SAY YES TO MICHIGAN: EPA's PFAS tour wasn't over after all, an agency official told lawmakers Wednesday. Peter Grevatt, the Water Office official leading EPA's work on the nonstick chemicals told a Senate Government Affairs subpanel that the agency will head to Michigan next week for stakeholder meetings. Communities across the Wolverine state have been learning of alarming levels of PFAS compounds in their water supplies in recent months as the state undertakes a proactive testing program.

Republican Michigan Gov. Rick Snyder, who has just a little experience with drinking water crises, was the first governor to back former EPA Administrator Scott Pruitt's efforts on the class of nonstick compounds, and EPA officials said they always intended to visit his state. But earlier this month EPA announced it was wrapping up its summer series of community engagement events without a visit to Michigan. That provoked an outcry from Michigan

lawmakers, Reps. Fred Upton (R), Debbie Dingell (D) and Tim Walberg (R), who extracted a promise from Grevatt during a hearing earlier this month to visit the state.

SPR IN THE SPOTLIGHT: Global markets are still jumpy as they try to figure out exactly how to replace Iran's shipments of 2 million barrels per day that are disappearing because of the President Donald Trump's decision to re-impose sanctions on Tehran. Those worries, plus the Federal Reserve's rate decision that kept the U.S. dollar fairly steady, could mean oil prices will be strong for the coming weeks and that's got the industry looking over its shoulder at the possibility that Trump could tap into oil in the Strategic Petroleum Reserve to push prices lower.

Driving prices: DOE Secretary Rick Perry told reporters such a release isn't in the cards, for now at least, according to media reports. That didn't exactly calm the waters — his comments lifted oil prices by 50 cents/bbl. There's also plenty of time to change his mind. Republicans could have to deal with higher gasoline prices going into the November midterms even as the administration tries to talk up its energy production policy.

Boppin' on OPEC: Trump, who has ramped up his criticism of OPEC after the cartel declined to raise its output, could release as much as 500,000 barrels per day from the SPR, though market experts say the price impact would be limited, and might simply widen the spread between U.S. and Brent prices. "It won't drop oil from $80 to $65, and any effect would be short-term," Hess Corp. President Greg Hill told Bloomberg News this week.

**** A message from National Clean Energy Week, A Clean Energy Future, Together:** National Clean Energy Week is taking place across the nation September 24-28, 2018. Learn more about how clean energy addresses America's economic and energy needs in the 21st century. **

UTAH BROUHAHA? Green groups are not giving up on opposing what would be the first oil shale mining project in the U.S. The Bureau of Land Management on Wednesday approved Enefit American Oil's request to build water pipelines and other infrastructure over public roads to complete its oil mining project in west Utah, which would produce 50,000 barrels of oil per day via digging up shale rock, heating it and treating it to remove petroleum. The company advertises the process as stable and efficient, but environmentalists argue it's more akin to strip mining and is extremely water intensive. "We're taking a very close look at this," the Center for Biological Diversity's Michael Saul told ME. "This project in particular is a terrible idea. We're evaluating our options."

LIGHTS STILL ON AT VOGTLE: Southern Co.'s Georgia Power will cover a higher share of future cost overruns at the Vogtle nuclear project in Georgia under a deal set today that will keep the lights on at the trouble project, according to a SEC filing issued yesterday. The agreement that kept alive the $28 billion two-reactor project also removes a requirement that the three biggest partners — Southern Co., Oglethorpe Power and the Municipal Electric Authority of Georgia — vote to continue the project in the event of future cost overruns, Pro's Darius Dixon reports.

Why would they do that? Maybe because such a requirement prompted this week's negotiations, which had threatened to derail the project, Darius reports. The four owners can now continue construction of two reactors despite a multibillion-dollar cost overrun.

LIVE, IN D.C.: Karen Evans, the recently confirmed DOE Assistant Secretary of Cybersecurity, Energy Security, and Emergency Response, will make her debut before the House Energy and Commerce Committee this morning. The hearing will focus on DOE's cybersecurity and energy security modernization efforts. "With energy systems now massively digitized and interconnected, new threats and vulnerabilities have emerged," Evans will say, according to her opening statement . "It's a whole of government effort, but DOE, in particular, must be vigilant and prepared when it comes to ensuring energy access and delivery through cyber threats, physical threats, and emergency situations." **If you go**, the hearing will start at 10:15 a.m. at 2322 Rayburn House Office Building.

SKI AND GREET: Five-time snowboarding Olympian Kelly Clark, plus other athletes and ski resort executives, will attend a reception on the Hill today with Reps. Ann McLane Kuster (D-N.H.) and Mike Coffman (R-Colo.) to discuss climate change and its impact on the winter recreation biz. Those interested can halfpipe on over to 340 Cannon House Office Building starting at 5:30 p.m.

HAPPENING TODAY:

10 a.m.: Nuclear Regulatory Commission holds a meeting on "Strategic Programmatic Overview of the Operating Reactors Business Line." 11555 Rockville Pike, Commissioners' Conference Room, Rockville, Md.

0 a.m.: House Science, Space, and Technology Committee conducts subcommittee hearing on "Advancing Nuclear Energy: Powering the Future." 2318 Rayburn House Office Building.

10:15 a.m.: House Energy and Commerce Committee conducts subcommittee hearing on "DOE Modernization: The Office of Cybersecurity, Energy Security, and Emergency Response." 2322 Rayburn House Office Building.

QUICK HITS:

"Oil eases, but Iran sanctions keep Brent above $80 a barrel," Reuters.

"U.S. Makes Shortlist for Saudi Nuclear-Plant Deal," WSJ.

"Trump's corn-state pledge puts Wheeler in a jam" E&E.

THAT'S ALL FOR ME! Annie Snider will be your ME host tomorrow.

**** A message from National Clean Energy Week, A Clean Energy Future, Together:** National Clean Energy Week is taking place across the nation September 24-28, 2018. Learn more about how clean energy addresses America's economic and energy needs in the 21st century. **

To view online:
https://subscriber.politicopro.com/newsletters/morning-energy/2018/09/permanent-conservation-353356

Stories from POLITICO Pro

Southern Co. agrees to cover higher share of future Vogtle cost overruns Back

By Darius Dixon | 09/26/2018 05:51 PM EDT

Southern Co.'s Georgia Power agreed to cover a higher share of future cost overruns at the Vogtle nuclear project under the deal set today with it partners, according to its SEC filing issued this afternoon.

The agreement that kept alive the $28 billion two-reactor project also removes a requirement that the three biggest partners — Southern Co., Oglethorpe Power and the Municipal Electric Authority of Georgia — vote to continue the project in the event of future cost overruns. That requirement prompted this week's negotiations, which had threatened to derail the project.

Southern also agreed to help the MEAG defray the costs of fending of lawsuits from the Jacksonville Electric Authority, which is trying to get out of a power purchase agreement with MEAG.

To view online click here.

Back

Vogtle nuclear project survives spat between owners Back

By Darius Dixon | 09/26/2018 04:31 PM EDT

The four owners of the Vogtle nuclear project agreed today to continue building the two reactors at the Georgia Power plant despite massive cost overruns, enabling the troubled development to survive its latest brush with death.

"We are all pleased to have reached an agreement and to move forward with the construction of Vogtle Units 3 & 4 which is critical to Georgia's energy future," the co-owners said in a statement. "While there have been and will be challenges throughout this process, we remain committed to a constructive relationship with each other and are focused on reducing project risk and fulfilling our commitment to our member-consumers."

The owners were called to decide the project's fate after the budget recently shot up another $2.3 billion. Oglethorpe Power, a not-for-profit electric cooperative in Georgia with a 30 percent stake in the two reactors, said on Monday it wanted to cap the costs for the project, which are now estimated at about $28 billion, and it pressed for Southern Co.'s Georgia Power to assume the risk for any further cost increases.

Oglethorpe's consent was needed to keep the project going, and for it to continue receiving financial support through the Energy Department's loan guarantee program.

The companies said today they had reached "definitive agreements" to help mitigate financial exposure for each of them, though they did not immediately release details.

Georgia Power, which has a 45.7 percent stake in the plant, had jabbed Oglethorpe in a late-night statement Monday, accusing the co-op of "using the vote to try to burden others with its obligations and extract unreasonable concessions."

Oglethorpe shot back midday Tuesday with a lengthy statement saying it was the subject of "misinformation campaign" and accused Georgia Power of "attempts to impeach our credibility."

The two other owners are the Municipal Electric Authority of Georgia and Dalton Utilities.

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Back

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MORNINGENERGY

10/11/2018 05:46 AM EDT

By KELSEY TAMBORRINO (ktamborrino@politico.com; @kelseytam)

With help from Anthony Adragna, Eric Wolff, Darius Dixon and Annie Snider

APPREHENSION AHEAD: The Trump administration's plan to overall the makeup of its EPA — an effort sought to streamline the agency and press restart on its priorities — is being met with a sizable dose of skepticism, and even fear, among green groups and career employees. So far, as Pro's Annie Snider and Alex Guillén report this morning, the biggest

changes have been to the 10 regional offices with a structure mimicking EPA headquarters in mind. And, overseeing the overall reorganization push is Chief of Operations Henry Darwin, who told POLITICO in a recent interview that "there is no denying the fact that EPA is not going to be getting bigger anytime soon."

Privately, many state regulators and even some EPA staffers say that some sort of bureaucratic overhaul is long overdue. But there's sufficient worry about the motives of an administration that prioritizes the well-being of coal and oil companies while dismissing the environmental problems like climate change. Congress would have to sign off on most changes, and last week Darwin told staff that the plan would head to the Hill soon.

"Reorganizations in and of themselves are not bad," said Joe Edgell, president of NTEU Chapter 280. "But it's important that the reorganization be geared toward improving our protection of human health and the environment, and at this point, we're not sure that all the changes we've heard about are designed with that goal in mind."

Some of the most significant changes may come at EPA's enforcement office, where Darwin says he wants to change how success is measured. Instead of focusing on how much the agency collects in fines, Darwin wants to prioritize quickly correcting violations of anti-pollution laws — an approach critics worry is too lax. "If corporations think the worst that can happen when they're caught is that they'll be hustled back into compliance, what's the incentive to stay in compliance in the first place?" asked Eric Schaeffer, executive director of the Environmental Integrity Project and a former civil enforcement chief at EPA. Read the story here.

IT'S THURSDAY MORNING! I'm your host, Kelsey Tamborrino. Cheniere's Khary Cauthen was the first to correctly ID Warren Harding as the only president to appoint a former president to the Supreme Court — he chose William Taft. For today: Another presidential trivia question: Who is the only president with an MBA? Send your tips, energy gossip and comments to ktamborrino@politico.com , or follow us on Twitter @kelseytam, @Morning_Energy and @POLITICOPro.

YOUR 2018 MIDTERMS HQ: The countdown is on. Policy professionals know the 2018 midterms represent more than keeping track of winners and losers. The outcome of high-stake contests could dramatically alter the course of policymaking across the country. Go beyond election night with POLITICO Pro's 2018 Midterms HQ. Read More.

POLITICO IS PARTNERING WITH THE MILKEN INSTITUTE to bring a special edition of the POLITICO Pulse newsletter to the Milken Institute Future of Health Summit. Written by Dan Diamond, the newsletter will take readers inside one of the most influential gatherings

of global health industry leaders and innovators as they tackle today's most pressing health challenges. The newsletter will run Oct. 23-24. Sign up today to begin receiving exclusive coverage on Day One of the summit.

BEYOND THE BELTWAY

MICHAEL CONTINUES DESTRUCTIVE PATH: Hurricane Michael made landfall Wednesday with 150-plus mph winds, and is expected to continue to move inland today. Duke Energy projected Wednesday that the Category 4 storm could cause anywhere from 300,000 to 500,000 power outages this week in North Carolina and South Carolina, which are still reeling from last month's Hurricane Florence.

Approximately 42 percent of the current oil production and roughly 31 percent of the natural gas production in the Gulf of Mexico had been shut-in as of 11 a.m. Wednesday, the U.S. Bureau of Safety and Environmental Enforcement said. The agency also said four of the 17 dynamically positioned rigs operating in the Gulf were moved out of the storm's path as a precaution. As of 6 p.m. Wednesday, about 388,000 customers in Florida, 46,000 customers in Georgia, and 45,000 customers in Alabama reported electricity outages, according to EIA data, with those numbers expected to rise.

MONIZ STEPS OFF SAUDI PROJECT AMID JOURNALIST PROBE: The Trump administration is facing pressure to investigate the fate of Saudi journalist Jamal Khashoggi, a U.S. resident who hasn't been seen since he entered a Saudi consulate in Istanbul more than a week ago. The concern over Khashoggi, a Washington Post columnist, also led former Energy Secretary Ernest Moniz to drop his membership from the board of NEOM, a "smart city" project in the kingdom. "Given current events, I am suspending my participation on the NEOM board," Moniz said in a statement Wednesday, first reported by Axios. "Going forward, my engagement with the advisory board will depend on learning all the facts about Jamal Khashoggi's disappearance over the coming days and weeks."

It's worth noting that the Trump administration has a couple of important asks in front of the Saudis: It's counting on the kingdom to maintain steady supplies of crude oil on the global market in order to temper price spikes once the White House reimposes sanctions on Iran; and Energy Secretary Rick Perry has been pressing to secure a civil nuclear trade agreement with Saudi Arabia. DOE declined to comment on whether Khashoggi's situation had affected its initiatives.

'Sweep it under the rug': POLITICO's Nahal Toosi takes a look at the growing worries that the White House will not confront the Saudis here.

THE WHITE HOUSE

REPORT: ZINKE CONSIDERED FOR U.N.: Interior Secretary Ryan Zinke is among the names being considered to replace outgoing U.N. Ambassador Nikki Haley, who resigned this week, according to a Fox News report based on two senior officials within the Trump administration. As POLITICO previously reported , Dina Powell, a Goldman Sachs executive and former deputy national security adviser, is the top candidate to replace Haley, but the White House has signaled it's open to others. Fox News reported that President Donald Trump was set to meet with Zinke on Wednesday about the U.N. role and other issues. In the Oval Office on Wednesday, Trump told reporters, "We like Dina" but are also "looking at others" for the role. For what it's worth, Interior told ME it doesn't comment "on conversations that may or may not have occurred between the secretary and the president."

Not a fan: Alaska Republican Sen. Lisa Murkowski seemed cool to the prospect of Zinke leaving to become U.N. ambassador even as she expressed confidence in Deputy Secretary David Bernhardt leading the agency. "If you now have the secretary leave, you kind of have to start all over," she told reporters. But she praised Bernhardt for "working round the clock" and said "he's doing a good job there."

ON THE HILL

E15 OPPONENTS HAVE AN ALLY IN KAVANAUGH: Trump's promise to boost ethanol sales will have to survive an inevitable court challenge once EPA formally issues an E15 waiver sometime next spring, and the oil industry does not think the agency has the legal authority it needs to follow through, Pro's Eric Wolff reported Wednesday. On that front, they appear to be in agreement with newly sworn-in Supreme Court Justice Brett Kavanaugh, who offered his views in a 2012 case over a partial waiver. The case was dismissed on procedural grounds, but Kavanaugh wrote a dissenting opinion arguing that EPA was misinterpreting the Clean Air Act. "On the merits, I conclude that the E15 waiver violates the statute," he wrote in *Grocery Manufacturers Association v. EPA*. "The waiver might be good policy; if so, Congress has the power to enact a new law permitting E15. But under the statute as currently written, EPA lacks authority for the waiver."

Back to the Hill? While legislative action has largely fizzled this year around reforming the Renewable Fuel Standard, oil refiners' allies on Capitol Hill say they are not giving up the fight. "We're still talking," Sen. John Cornyn (R-Texas) told reporters Wednesday. "We think we need a permanent solution and I also think there's a high likelihood there will be litigation, so we think a legislative solution would be more appropriate." A spokesman for

Rep. John Shimkus, who has been leading the House effort on reform, said Shimkus hopes to get a draft bill out later this year.

NOT AFRAID: Murkowski's GOP colleagues have her back against any retaliation over her vote against Kavanaugh, and she said she isn't afraid of Trump's threat that she will "never recover" from that vote. "There are consequences to every vote that we take and I accept that, but I also cannot be driven out of fear of a tweet, of a reprimand, of a cross word," she told reporters. She smiled when asked if she'll run again — "I don't have to make that decision for four years" — but quickly added: "I know Alaska's political terrain better than [Trump] does."

PIPE DREAMS: Congress' approval this week of the America's Water Infrastructure Act of 2018 S. 3021 (115) provides some of the most significant updates to the country's drinking water management in two decades, but it's unlikely to fix some of the nation's most pressing water problems on its own. The bill will give lawmakers a major achievement to tout back home ahead of midterms, Annie reports , especially in districts grappling with drinking water problems, but some argue the bill is just a step in the right direction on solving water infrastructure problems.

DOJ NOMINEE MOVES CLOSER: The Senate will vote at 12:10 p.m. on the nomination of Jeffrey Clark to be assistant attorney general in charge of the Justice Department's Environment and Natural Resources Division, following a 53-44 cloture vote on Wednesday. Trump first nominated Clark, who is backed by industry groups, in June 2017.

McNAMEE ENDGAME: Republican senators on the Energy and Natural Resources Committee are hoping to swiftly confirm FERC nominee Bernard McNamee before year's end, in an effort to return the commission to full strength, Pro's Anthony Adragna reports. Democrats, meanwhile, warn of a coming battle over the selection, as they remain worried that adding McNamee to FERC will politicize the commission.

NEWS TO ME: Trump suggested aboard Air Force One on Tuesday he'd received "expedited approval" for a Texas pipeline project, but Cornyn told ME he wasn't sure which one the president was referring to even as he suggested more pipeline capacity is needed. "I do know they're flaring off and burning natural gas in the Permian Basin because they don't have the pipeline capacity to send it to market," he said. "I'm not familiar to what he was referring to, but there is a shortage of capacity to be sure."

INSIDE THE AGENCIES

WHEELER HEADS TO CALI: Acting EPA Administrator Andrew Wheeler is in California's Central Valley today, where he'll appear at a press event with Republican Rep. Jeff Denham, who is facing one of the tightest re-election fights in the country. Denham has asked Wheeler to use EPA's authority to overturn a proposal by California's State Water Resources Board that would require more water to be reserved in key rivers for the benefit of endangered fish species and the detriment of farmers who dominate Denham's district.

WHAT'S YOUR PLAN, STAN? Michigan Democrats who were on the frontlines of the Flint lead contamination crisis are pressing EPA to account for the recent dismissal of the head of the agency's Office of Children's Health Protection. In a letter being sent to Wheeler this morning, Sens. Gary Peters and Debbie Stabenow, and Rep. Dan Kildee ask EPA to explain Ruth Etzel's abrupt removal as head of the office and how the office will operate now. "Going forward, we need to ensure we have a strong national infrastructure to prevent a scenario like the Flint water crisis from ever happening again, and the Office of Children's Health Protection is key to this strategy," the lawmakers write. An EPA spokesman has said Etzel was placed on administrative leave while the agency investigates allegations about her leadership of the office.

WHEELER ADDS 5 TO ADVISORY PANEL: Wheeler appointed five new members to the Clean Air Scientific Advisory Committee, which advises the administrator on NAAQS issues: Mark Frampton, of the University of Rochester Medical Center; Sabine Lange, from the Texas Commission on Environmental Quality; Timothy Lewis, of the U.S. Army Corps of Engineers; Corey Masuca, of the Jefferson County Department of Health in Alabama; and Utah Department of Environmental Quality's Steven Packham.

QUICK HITS

— "How Bloomberg embeds green warriors in blue-state governments," RealClear Investigations.

— "Regs chief likely on short list for D.C. Circuit bench," E&E News.

— "More than 1,500 Interior employees removed or reprimanded for harassment, misconduct," The Hill.

— "James Murdoch in line to replace Elon Musk as Tesla chair," Financial Times.

— "Trump administration seeks to deploy earthquake sensors faster," The Wall Street Journal.

— "Toxic red tide could sicken people as Hurricane Michael pushes It ashore," Bloomberg.

HAPPENING TODAY

8:15 a.m. — Rice University's Baker Institute for Public Policy hosts Global Energy Transitions Summit, Houston.

8:30 a.m. — The Center for Strategic and International Studies discussion on International Energy Agency report, "The Future of Petrochemicals: Toward a More Sustainable Supply of Plastics and Fertilizers," 1616 Rhode Island Avenue NW.

8:30 a.m. — National Academy of Sciences Polar Research Board briefing on "Understanding Northern Latitude Vegetation Greening and Browning," 500 Fifth Street NW.

10 a.m. — Senate Energy and Natural Resources Committee hearing to examine blackstart, 366 Dirksen.

4:30 p.m. — The National Academy of Sciences' LabX hosts " Two Scientists Walk Into a Bar," 3930 Georgia Avenue NW.

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MORNINGENERGY

10/16/2018 05:45 AM EDT

By KELSEY TAMBORRINO (ktamborrino@politico.com; @kelseytam)

COAL ON THE CAMPAIGN TRAIL: President Donald Trump has just 21 days left to hit the campaign trail to shore up support for a slate of politically vulnerable Republicans. This week alone he's expected to travel to Montana, Arizona and Nevada for political rallies. But it's looking less and less likely that he'll have a major plan in place to prop up ailing coal-fired power plants to tout, since the White House appears to have shelved an effort that's

been underway for more than a year. And Trump himself has been noticeably quiet about it, especially after he's previously promised crowds he'd bring back coal jobs, POLITICO's Eric Wolff and Darius Dixon report.

Energy Secretary Rick Perry has pushed numerous plans that would invoke national security in order to put in place federal support for coal and nuclear plants that have been struggling to compete against cheap natural gas. Now, the White House is backing off the effort amid opposition from the president's advisers, four people knowledgeable about the discussions told Eric and Darius. It remains unclear whether the president himself has decided against Perry's proposal.

Even if he has, Trump has been known to quickly change his mind, the sources caution — meaning the coal bailout proposal could re-emerge in advance of the president's own re-election campaign. In the meantime, Trump has omitted references at his rallies to a potential rescue plan recently, even while giving pro-coal speeches like at last week's rally in Richmond, Ky. That's a far cry from the West Virginia speech he gave this spring where Trump told a crowd, "We'll be looking at that 202," in reference to the section of the Federal Power Act that the Energy Department could use to set its coal plan in motion.

Of course, without a bailout, the Trump administration still has plenty of regulatory rollbacks to tout. But on the Hill, the White House's silence has already left some frustrated. "I'm trying to find the darn plan because I understand it's gone from the Department of Energy over to the White House, and I don't know who in the White House would be sitting on it for whatever reason," Democratic Sen. Joe Manchin, who faces a tough re-election battle, recently told reporters .

GOOD TUESDAY MORNING! I'm your host, Kelsey Tamborrino. Duke Energy's Vicky Sullivan was first to name the Dead Sea as the lowest point in the Middle East. For today: In what year was electricity first installed in the White House, and under which president? Send your tips, energy gossip and comments to ktamborrino@politico.com, or follow us on Twitter @kelseytam, @Morning_Energy and @POLITICOPro.

PRESIDENT TRUMP SAYS A RED WAVE IS COMING ON ELECTION DAY. Is he right, or will the tide turn blue? Compete against the nation's top political minds in the POLITICO Playbook Election Challenge, by correctly picking the winning candidates in some of the most competitive House, Senate and gubernatorial races in the country. Win awesome prizes and eternal bragging rights. Sign up today! Visit politico.com/playbookelectionchallenge to play.

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CLIMATE CHANGE

TRUMP SAYS MORE ON CLIMATE: One day after "60 Minutes" aired an interview with Trump where he expressed his doubts about whether climate change was "man-made," the president doubled down on the topic Monday. "There is something there — man-made or not," Trump said while in Georgia to survey the damage from Hurricane Michael. "There's something there. And it's going to go back and forth." But in the face of increasing extreme weather, which scientists have directly linked to climate change, Trump cast doubt. "Weather has been a factor. And yet, they say the worst hurricanes were 50 years ago," he said.

FROM FLORIDA: Trump's response to Hurricane Michael, particularly in Florida, also represented "a rare opportunity to appeal to an elusive group of Floridians and Americans who still consider themselves persuadable," POLITICO's Nancy Cook and Christopher Cadelago write. GOP Rep. Carlos Curbelo , whose district encompasses parts of several areas particularly susceptible to rising sea levels, told POLITICO it's important for Trump to see the devastation of a storm like Michael first-hand, "especially in the wake of his disappointing comments on climate change."

Related: Curbelo, co-founder of the Climate Solutions Caucus, is nearly tied with his Democratic opponent, according to a new poll that shows the GOP is struggling in Florida's southernmost seat, as POLITICO's Marc Caputo reports.

AROUND THE AGENCIES

DIGGING IN ON ZINKE'S EXPORT PLAN: Interior Secretary Ryan Zinke's suggestion Monday that his department is considering using old West Coast military bases to export coal and liquefied natural gas to Asia was immediately panned by critics, who argued the logistics of the idea just wouldn't work, Pro's Ben Lefebvre reports . Democratic Washington Gov. Jay Inslee called it another one of the administration's "harebrained schemes for their Department of Cock-Eyed Ideas." Tom Hicks, a former undersecretary of the Navy and now a principal at Mabus Group, said the plan didn't "sound logical or fully baked."

Zinke told The Associated Press the idea — which could rely on sites like a former Navy base on a remote Alaskan island — is a national security matter because it would ensure that the U.S. can supply allies with cheap energy. But, as Ben writes, there'd be a slate of bureaucratic and economic hurdles in the way of building the infrastructure needed to turn military bases into export facilities — something experts said would be difficult to overcome. "Just because it was once a military base that's closed, it doesn't mean Department of Defense has anything to do with it. I don't even know what the role of Interior would be at that point. Usually the land is turned over to the state," Hicks said.

** **Presented by ExxonMobil:** Over the next five years, ExxonMobil plans to invest $50 billion in the U.S. economy to expand its business. That kind of investment will not only create jobs in energy but also help support millions of American jobs in other industries. EnergyFactor.com **

WHERE'S PERRY? Perry heads to Iowa this morning to deliver remarks at the Ames National Laboratory. The trip marks Perry's 16th national lab visit out of DOE's 17 labs, the department said. Perry will tour the facility and provide remarks, as well as hold an all-hands meeting with employees.

EPA: REMARKS FROM OUSTED OFFICIAL 'INAPPROPRIATE': Ruth Etzel, the pediatrician who headed EPA's Office of Children's Health Protection, is on investigative leave in response to "serious reports made against her by staff regarding her ability to effectively lead" the office, an EPA spokesman said in a statement to ME. Etzel, who was abruptly removed from her job at the end of September, appeared on "CBS This Morning" on Monday where she said she was given no reason for why she was frozen out. In the interview, Etzel also expressed skepticism of the administration's strategy to protect children from lead poisoning. "My sense is that the government has absolutely no intention of taking any action toward seriously changing lead in children's environments," she said.

Etzel's "attempt to use the press to distract from the allegations about her personal conduct is completely inappropriate," the spokesman said, adding that "any link" Etzel draws between her personal situation and the mission of the office "is an attempt at misdirection."

WYOMING ATTORNEY TAKES ON INTERIOR ROLE: Karen Budd-Falen, a Wyoming-based land use attorney, has taken on the role of deputy solicitor for fish, wildlife and parks at Interior, the department confirmed to ME. "Budd-Falen brings extensive industry experience to the Department, and we are excited to have her on our team," the department said in a statement.

Budd-Falen — who worked on the Trump administration's Interior transition team and was an Interior appointee during the Reagan administration — told the Fence Post she withdrew a previous nomination last March for a top job at the Bureau of Land Management after she was asked to sell interest in her family ranch. Instead, she told the website she will work on issues including the Endangered Species Act, National Park Service and national monuments as deputy solicitor. There is currently no nominee for Interior solicitor, a Senate-confirmed position, after Ryan Nelson's nomination was withdrawn to become a judge on the U.S. Court of Appeals for the 9th Circuit.

E15 TIMELINE EMERGES: EPA will formally propose its plan to expand higher ethanol blends and on RIN reform by February, spokesman John Konkus told S&P Global Platts. The February timeline would give the agency time to complete the rulemaking process and issue a final rule by the start of summer driving season on June 1, he told the news outlet.

DOE OFFERS MILLIONS FOR SOLAR PROJECT: The Energy Department announced Monday it is offering up millions in research funding to strengthen solar power integration on the grid and address the threats posed by cyber and physical attacks, your host reports. The office will select about 10 projects to the tune of $46 million that will help advance "holistic solutions that provide grid operators the situational awareness and mitigation strategies against cyber and physical threats."

ON TAP TODAY

GONE WITH THE WIND: The annual AWEA Offshore WINDPOWER conference kicks off today in D.C., where state officials, private sector and the federal government will converge to discuss the emerging industry. Democratic Sens. Tom Carper and Ed Markey are expected to deliver keynote speeches today at the event hosted by the American Wind Energy Association. On Wednesday, Virginia Gov. Ralph Northam and Zinke will address the conference. See the two-day agenda here.

STATE NEWS

ANN SCOTT TAKES OVER FLORIDA CAMPAIGN: Florida recovery efforts in the aftermath of Hurricane Michael have forced Gov. Rick Scott to hand the reins of his Senate campaign over to his wife Ann, with mere weeks to go before Election Day. "Gov. Scott will be focused on response and recovery from the devastating hurricane that hit the Panhandle for the foreseeable future," Scott campaign adviser Chris Hartline said in a statement. "It's unclear, at this point, whether he will hold any campaign events before the Nov. 6 election,

though it is still possible closer to Election Day." The campaign said, however, it is setting up an "aggressive schedule of surrogate events," Pro Florida's Matt Dixon reports.

KEEPING SCORE: The business group Advanced Energy Economy launched online scorecards today detailing where gubernatorial candidates in nine states stand on a range of advanced energy policies. Today's launch will also be backed by targeted digital advertising in the nine states. See the details for California, Colorado, Florida, Illinois, Michigan, Minnesota, New Mexico, Nevada and Ohio.

MAIL CALL

IN PROTEST OF PROTEST FEES: A coalition of environmental and civil rights organizations signed onto a letter to the chief of staff for the National Mall and Memorial Parks to express their opposition to proposed rulemaking that seeks to revise the protest permitting process for demonstrations at the National Mall, Memorial Parks and President's Park. The proposal, they write, "would infringe on Americans' rights to free speech and assembly." Monday was the last day to submit public comments on the proposal.

— **Dean Rostrom**, the owner of biomass power company Eagle Valley Clean Energy LLC, wrote to acting EPA Administrator Andrew Wheeler last week on outstanding eRIN applications. Rostrom called on Wheeler to issue conclusions on the applications from renewable electricity producers, who are seeking certification and identification numbers under the Renewable Fuel Standard.

— **Two separate letters** — one signed by 235 scientists and another by 114 conservation groups — went out Monday calling on the Forest Service to uphold the current Roadless Area Conservation Rule in Alaska's Tongass National Forest.

MOVERS AND SHAKERS

Jeremy Mazur joined the Railroad Commission of Texas as the director of government relations, effective Monday, the agency said. Mazur most recently served as deputy chief of staff and legislative director for Texas state Sen. Van Taylor.

QUICK HITS

— "Families search for the missing in the hurricane's aftermath," Associated Press.

— "Despite buzz in met coal, Mission Coal files for bankruptcy after legal issues," S&P Global Market Intelligence.

— "Another victim of the trade spat: U.S. oil to China," The Wall Street Journal.

— "Tesla-branded tequila 'Teslaquila' coming soon to stores near you?" San Francisco Business Times.

— "PFAS-tainted foam 'getting worse' in waters near former Wurtsmith base," Detroit Free Press.

— "Wheeler hands 'YUGE win' to foes of science panels," E&E News.

HAPPENING TODAY

8:30 a.m. — National Association of Science Writers host information access summit, 800 21st Street NW.

9:55 a.m. — AWEA Offshore WINDPOWER 2018 conference begins, 400 New Jersey Ave. NW.

10 a.m. — United Nations Foundation briefing on the IPCC's special report on 1.5 degrees Celsius of global warming, 1750 Pennsylvania Ave. NW.

4:30 p.m. — Johns Hopkins University Paul H. Nitze School of Advanced International Studies and AECOM discussion on "Understanding Integrated Urban Water Management," 1619 Massachusetts Avenue NW.

6:30 p.m. — The Women's Council on Energy and the Environment discussion on "Liquid Natural Gas (LNG) Exports: What Lies Beyond the Expected Near-Term Expansion?"

CORRECTION: The Oct. 15 edition of Morning Energy incorrectly identified the rescheduled date nominees will testify before the Senate Energy and Natural Resources Committee. It is Nov. 15.

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Sent: 9/28/2018 10:17:09 AM
To: Gray, David [gray.david@epa.gov]
Subject: Fwd: Morning Energy, presented by National Clean Energy Week: EPA does the science shuffle — Musk hit with securities fraud suit — Florence aid as soon as today

Sent from my iPhone

Begin forwarded message:

From: "POLITICO Pro Energy" <politicoemail@politicopro.com>
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To: <grantham.nancy@epa.gov>
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Reply-To: "POLITICO subscriptions" <reply-fe8313767c670d7973-630326_HTML-814497992-1376319-0@politicoemail.com>

By Annie Snider | 09/28/2018 05:45 AM EDT

With help from Eric Wolff, Ben Lefebvre, Anthony Adragna and Darius Dixon.

SHUFFLING SCIENCE AT EPA: EPA leaders floated a reorganization plan to staff this week that would merge the agency's science adviser with another unit under the Office of Research and Development — a move that drew alarm from some agency staffers and outside observers who called it a major demotion for the position. The science adviser has historically had a direct line to the EPA administrator, with the charge of ensuring that the highest quality science is implemented consistently across the agency and in its regulatory decisions, and critics argue the new move would put layers of bureaucracy between the adviser and the agency's top decision maker. "There is a significant loss of independence here," said Michael Halpern, deputy director of the Center for Science and Democracy and the Union of Concerned Scientists.

But the agency's acting science adviser, Jennifer Orme-Zavaleta, said in a statement that the plan was developed by career leaders and was aimed at "reducing redundancies." She also pointed out that, in recent years, the science adviser post has actually been filled by the head of the office of research and development, under which it would now be housed — a dual role she herself plays — meaning the adviser could still have direct access to the administrator.

It's all in the messenger: Some career EPA staffers told ME they thought the organizational shuffle made some sense, and likely wouldn't have drawn scrutiny if it hadn't come after other controversial moves by the Trump administration on science, like seeking to limit the agency's ability to use research on the effects of pollution on human health, adding industry representatives to EPA's influential science advisory board, and just this week putting the head of the agency's Office of Children's Health Protection on administrative leave.

FINALLY FRIDAY! I'm your fill-in host, Annie Snider. Kip Knudson at Andeavor was the first to correctly answer that Prudhoe Bay is the active oil and gas production site due north of

Hilo, Hawaii. Today's question: Who was the first Mormon to serve in the U.S. Senate? Hint: This person also sponsored legislation creating the National Park Service. Send your guesses, along with your tips and quips, to blefebvre@politico.com, asnider@politico.com and ddixon@politico.com. And remember to follow us on Twitter @Morning_Energy and @POLITICOPro.

President Donald Trump says a red wave is coming on election day. Is he right or will the tide turn blue? Compete against the nation's top political minds in the POLITICO Playbook Election Challenge, by correctly picking the winning candidates in some of the most competitive House, Senate and gubernatorial races in the country! Win awesome prizes and eternal bragging rights. Sign up today! Visit politico.com/playbookelectionchallenge to play.

MUSK HIT WITH SECURITIES FRAUD SUIT: The SEC filed a suit against Elon Musk Thursday alleging that the Tesla CEO committed securities fraud by making a "series of false and misleading statements" on Twitter that he had secured funding to take the company private. Tesla shares spiked on Aug. 7 when Musk tweeted, "Am considering taking Tesla private at $420. Funding secured." The suit, filed in federal court in Manhattan, alleges that Musk made the claim even though he "had not even discussed, much less confirmed, key deal terms, including price, with any potential funding source." The suit seeks to force Musk to return "any ill-gotten gains" he received as a result of the remarks and pay a civil fine, and it asks the court to bar him from serving as an officer or director in any publicly traded company — effectively requiring his removal as Tesla CEO.

Musk called the SEC move an "unjustified action" in a statement, saying, "Integrity is the most important value in my life and the facts will show I never compromised this in any way."

The suit is a stunning blow to one of Silicon Valley's most prominent figures, who has been mired in controversy in recent weeks over erratic public statements and behavior, Pro Tech's Christiano Lima reports. Those include Twitter posts calling a Thai cave rescue volunteer a pedophile and child rapist — comments that resulted in a defamation suit against Musk — and a podcast interview in which the Tesla CEO brandished whiskey and puffed on a joint of marijuana.

DOJ SETTLES FOR LESS IN BIOFUELS FRAUD CASE: The Justice Department reached a settlement with an Oklahoma energy company on Thursday for biofuels fraud. NGL Crude Logistics agreed to pay a $25 million fine and $10 million in other penalties — even though the company appears to have reaped a total of about $43.6 million in sales from fraudulently double-counting biofuel credits in 2011.

DOJ spokesman Wyn Hornbuckle said the company incurred costs in the process of committing the fraud, and the consent decree released by DOJ said NGL Crude Logistics "does not have an ability to pay a penalty greater than that required by this Consent Decree." Eric Wolff has more for Pros.

ZEC CRITICS CALL FOR A SECOND CHANCE: Shortly after suffering a loss before a different federal appeals court Thursday, critics of state-enacted nuclear power subsidies have asked the three-judge panel of the 7th Circuit Court of Appeals that ruled against them earlier this month for a rehearing. The panel "overlooked or misapprehended three key legal arguments" when it reaffirmed the legitimacy of Illinois' zero-emissions credit two weeks ago, said Donald Verrilli, a former solicitor general who is representing Electric Power Supply Association and other critics of these state programs. Given that the ruling Verrilli's clients are trying to fighting was unanimous, the rehearing bid is likely a long shot.

**** A message from National Clean Energy Week, A Clean Energy Future, Together:** National Clean Energy Week is taking place across the nation September 24-28, 2018. Learn more about how clean energy addresses America's economic and energy needs in the 21st century. **

FLORENCE AID AS SOON AS TODAY: Disaster aid to hurricane-hit North and South Carolina could be approved as soon as today as part of the Senate's FAA extension, H.R. 302 (115). The House cleared its version of the measure Wednesday containing nearly $1.7 billion in emergency aid to be doled out through the Community Development Block Grant program that President Donald Trump had proposed eliminating in his most recent budget request. House Appropriations Chairman Rodney Frelinghuysen (R-N.J.) has said the aid is just the "first round of assistance" for people rebuilding in the region, Sarah Ferris reports for Pros.

Also tucked in the FAA extension is a PFAS provision that would to remove federal requirements that airports use firefighting foam containing the chemicals, which are linked with kidney and testicular cancer, preeclampsia and a host of other ailments.

DRILLING COMPANY UNDERPAID ROYALTIES: The Interior Department's inspector general has found that the Great Western Drilling Corp. cheated the federal government out of mineral royalties it owed for natural gas it pumped from federal land. The OIG found that the company violated federal rules by deducting its transportation and processing costs from what it owed the government. The company agreed to pay $600,000 under a settlement with the Justice Department.

And that's not all: Interior's IG also released reports clearing several department staffers of wrongdoing. The office found no evidence that a Bureau of Reclamation manager influenced the awarding of a $21 million environmental consulting contract to a firm that he later went to work for, nor that the contract specialist who managed the award should have recused herself due to a romantic relationship with the manager. And in a separate review, the IG cleared a senior official in the Bureau of Land Management of allegations that he directed employees to overlook regulations in an effort to speed up the processing of drilling permit applications.

EPA BEGINS AIR TESTING AT PLANT LINKED TO ILLINOIS GOVERNOR: EPA notified lawmakers Thursday that it has begun testing air quality at the Sterigenics International plant in the western Chicago suburb of Willowbrook. The community has one of the highest rates of cancer in the country, according to EPA data, and local outrage has focused on emissions of the carcinogen ethylene oxide from Sterigenics, a company that sterilizes medical instruments and other equipment, in which Gov. Bruce Rauner (R), a former private equity executive, still has a financial stake, according to the Chicago Tribune.

A CPP PREBUTTAL: Ahead of EPA's lone public hearing on its replacement for the Clean Power Plan, to be held in Chicago on Monday, the head of the union representing EPA workers across the Midwest is coming out swinging. Mike Mikulka, president of AFGE Local 704 and spokesman for the Save the EPA Campaign, defended the CPP regulations as rules that protect health rather than "onerous penalties on industry." He also argued in a statement that the replacement proposal, called Affordable Clean Energy, "gives big polluters license to release increased levels of air pollution and water contamination."

SUNSHINE STATE SHOVE ON LWCF: Eleven Florida lawmakers, led by Republican Rep. Carlos Curbelo, sent a letter to House leaders urging the permanent reauthorization of the Land and Water Conservation Fund before it expires Sept. 30. "We ask for your help to protect critical outdoor recreational infrastructure and fulfill the promise that all generations of Americans will

be able to enjoy our public lands by immediately taking up and passing legislation to permanently reauthorize LWCF before it expires on Sept. 30," the bipartisan group wrote in a letter. Lawmakers expect the fund's authorization will lapse, but remain optimistic about making a deal to reauthorize it during the lame duck.

API COMES OUT SWINGING AGAINST E15: The American Petroleum Institute is making clear it will fight hard against any expansion of sales of 15 percent ethanol sales. The organization will follow up its Wednesday letter to President Donald Trump with a call to reporters laying out how it will "step up" its campaign to block the change. Ethanol producers have long wanted the expansion as a means to grow the market for their fuel, and oil producers have opposed it for much the same reason. API has for years called for the program to be repealed, or at least sunset in 2022.

QUICK HITS

"Washington Rolls Back Safety Rules Inspired by Deepwater Horizon Disaster," New York Times

"Small islands use big platform to warn of climate change," Associated Press

"Killer whales face dire PCB threat," New York Times

"How Renewables Lead to a World of Peak Energy," Bloomberg News

"Energy-Company Bonds Surge on Rising Oil Prices." Wall Street Journal

HAPPENING TODAY

10 a.m.: Institute for Policy Integrity's 10th anniversary conference, "Energy and Environmental Policy: The Quest for Rationality." New York University School of Law 40 Washington Square South - Vanderbilt Hall, New York, NY

THAT'S ALL FOR ME! Darius Dixon will be your ME host Monday.

**** A message from National Clean Energy Week, A Clean Energy Future, Together:** National Clean Energy Week is taking place across the nation September 24-28, 2018. Learn more about how clean energy addresses America's economic and energy needs in the 21st century. **

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https://subscriber.politicopro.com/newsletters/morning-energy/2018/09/epa-does-the-science-shuffle-355213

Stories from POLITICO Pro

SEC sues Elon Musk, alleging securities fraud Back

By Cristiano Lima | 09/27/2018 04:47 PM EDT

The SEC filed a securities fraud lawsuit against Tesla CEO Elon Musk on Thursday, in a major blow to one of Silicon Valley's most prominent and controversial figures.

In a filing in federal court in Manhattan, prosecutors allege that Musk made a "series of false and misleading statements" on Twitter last month that he had secured funding to take the company private. The suit alleges Musk made the claim despite the fact that he "had not even discussed, much less confirmed, key deal terms, including price, with any potential funding source."

Tesla shares spiked when Musk tweeted on Aug. 7: "Am considering taking Tesla private at $420. Funding secured." It was one of several tweets that day highlighted by the SEC.

The SEC wants Musk to return "any ill-gotten gains" he received as a result of the remarks, pay a civil fine, and be barred from serving as an officer or director in any publicly traded company, which would in effect require his removal as Tesla CEO.

The legal action deals a stunning setback for one of Silicon Valley's most recognizable figures, whose companies have disrupted the automotive, solar power and space industries, but who in recent weeks has been mired in controversy over his erratic public statements and behavior.

In a statement, Musk said, "This unjustified action by the SEC leaves me deeply saddened and disappointed."

He added, "Integrity is the most important value in my life and the facts will show I never compromised this in any way."

Musk's other legal troubles include a recent lawsuit by a Thai cave rescue volunteer who sued the Tesla CEO for defamation after Musk called him a pedophile and a child rapist on Twitter. Earlier this month, the tech mogul brandished whiskey and puffed a joint of marijuana during a highly publicized podcast interview. The controversies have swirled as Tesla struggled to meet production targets for its newest electric car.

At the same time, Musk's companies have pulled off some stunning technological stunts, such as launching a Tesla roadster into space.

Last week, a Tesla spokesperson confirmed that the company was cooperating with a Justice Department investigation into Musk's remarks. According to media reports, the probe was being run in tandem with the inquiry by the SEC.

The DOJ declined to comment, saying it does not confirm or deny the existence of investigations.

To view online click here.

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DOJ settles biofuel fraud case, firm to pay back only a portion of illicit trading Back

By Eric Wolff | 09/27/2018 04:15 PM EDT

The Justice Department said on Thursday that it had settled a biofuels fraud case with an Oklahoma energy company, though the $25 million fine and $10 million in other penalties appeared to fall short of the revenues the firm earned through the illicit biodiesel deals.

NGL Crude Logistics committed fraud in 2011 by generating biofuel credits, called Renewable Identification Numbers, on batches of biodiesel that it sold back to the fuels producer, Western Dubuque Biodiesel, according to DOJ. The company claimed a total of 36 million new RINs on the same fuel under later subsequent deals, it said.

Under the consent decree, NGL Crude Logistics agreed to buy and retire 36 million new RINs by the end of 2019, which DOJ and EPA estimated would cost it $10 million. Under the agreement, the company did not admit guilt.

However, current prices for those RINs are less than half the average 2011 price, which briefly reached record high levels of $1.62. Those prices have declined to about 47 cents currently, according to EPA's new biofuels dashboard tool.

Based on the 2011 average price of $1.21 per RIN — a figure calculated by averaging the weekly prices provided by EPA — the fraudulent double counting allowed NGL Crude Logistics to generate about $43.6 million from the sales, according to POLITICO's calculations. That is well above the $35 million total in penalties to the company that DOJ and EPA cited in their statement.

DOJ spokesman Wyn Hornbuckle said the companies incurred costs in buying and selling the fuel it needed to commit the fraud, eroding the profits.

The consent decree released by DOJ said the company "does not have an ability to pay a penalty greater than that required by this Consent Decree," and that it had nearly violated its financial covenants in its credit agreements.

Western Dubuque also paid $6 million in its own civil settlement, which Hornbuckle says brings the total penalty for both companies to $31 million.

NGL did not respond to a request for comment. EPA referred questions on the settlement to DOJ, but during a press call with reporters, Susan Bodine, assistant administrator for the Office of Enforcement, said the company paid "a significant civil penalty."

"We are making the market place whole," she said. "As in all of our settlements, this is a civil settlement, one of the factors raised here was ability to pay and so we took that into account."

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Appeals court reaffirms New York's nuclear subsidy program Back

By Darius Dixon | 09/27/2018 10:51 AM EDT

A federal appeals court panel today upheld New York's subsidy program for nuclear power plants, the industry's second court victory this month.

Today's unanimous decision from the 2nd Circuit U.S. Court of Appeals reaffirms a district court judge's finding that the state's zero-emission credits didn't infringe federal authority in part

because the challengers "have failed to identify any clear damage to federal goals." Echoing a fellow three-judge panel on the 7th Circuit Court of Appeals two weeks ago that backed Illinois' ZEC program, the 2nd Circuit determined that New York's program was more narrowly tailored than a Maryland subsidy that was axed by the Supreme Court in the *Hughes v. Talen Energy Marketing* case two years ago.

Circuit Judge Dennis Jacobs wrote that "the ZEC program exerts downward pressure on wholesale electricity rates" but that that "incidental effect" wasn't enough to assert blanket legal opposition to the program.

Jacobs noted that there is sometimes a fuzzy line between where state authority over the electrical system ends and where federal powers begins. "New York has kept the line in sight, and gone as near as can be without crossing it," he said.

WHAT'S NEXT: The Electric Power Supply Association and its fellow critics of the state programs still have the opportunity to appeal the case before the rest of the 2nd Circuit or potentially the Supreme Court.

To view online click here.

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Appeals court reaffirms Illinois nuclear subsidy program Back

By Darius Dixon | 09/13/2018 06:31 PM EDT

A federal appeals court panel today upheld Illinois' subsidies for nuclear power plants.

Today's unanimous decision from the 7th Circuit Court of Appeals reaffirms a district court judge's finding that the state's program didn't overstep into federal jurisdiction. The three-judge panel determined that Illinois' zero-emission credits program was more narrowly tailored than a Maryland subsidy that was axed by the Supreme Court in the *Hughes v. Talen Energy Marketing* case two years ago.

"Illinois has not engaged in any discrimination beyond what is required by the rule that a state must regulate within its borders. All carbon???emitting plants in Illinois need to buy credits. The subsidy's recipients are in Illinois; so are the payors," Judge Frank Easterbrook wrote on the panel's behalf. The fact that a state's energy program may impact power prices outside their borders is "an inevitable consequence of a system in which power is shared between state and national governments," he added.

Easterbrook also noted that a brief filed by FERC said the Illinois' program does not interfere with interstate auctions.

Still, earlier this summer, FERC issued an order declared that the structure of PJM's capacity market unjust because it didn't sufficiently mitigate the price impacts of state-level energy initiatives such as the ZEC program in Illinois and New York. While Illinois' critics argued that PJM's effort to restructure the market was an admission that subsidies were unfair, the court said it is up to FERC to address those concerns.

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Bishop offers warning shot ahead of Senate LWCF markup Back

By Anthony Adragna | 09/27/2018 05:04 AM EDT

The key architect of a bipartisan House bill to permanently reauthorize the Land and Water Conservation Fund has a warning for his Senate counterparts: Don't expect to turn the program into an entitlement.

Making spending from the fund mandatory — as envisioned in a bipartisan Senate bill — would "probably blow it up in the House," Natural Resources Chairman Rob Bishop (R-Utah) said Wednesday. The Senate Energy and Natural Resources Committee is scheduled to mark up an LWCF reauthorization bill next Tuesday.

The popular conservation program uses revenue from offshore oil and gas drilling to protect and preserve national parks, forests and recreation areas. It will expire Sept. 30, a few days after the House is set to adjourn until after the election without acting on the bill introduced by Bishop and his ranking member, Raúl Grijalva (D-Ariz.), H.R. 502 (115) . Their bill would require money from the fund to be distributed through annual appropriations bills, unlike a bipartisan counterpart in the Senate.

LWCF supporters typically prefer mandatory funding for the program because they say Congress chronically shortchanges it — creating a growing backlog of projects — and because the appropriations cycle has been so unpredictable. Bishop and other Republicans, meanwhile, are skeptical of mandatory spending because they do not want to give up lawmakers' ability to exercise oversight on how the government spends its money.

When the House pair unveiled their bill earlier this month, Grijalva said he was willing to compromise on the mandatory spending aspect to get Bishop on board with a permanent reauthorization for the fund.

After the program's authorization expires Sunday, oil and gas companies will stop paying into the fund, but unspent funds already collected can still be doled out.

The agenda for next week's Senate committee markup has not been finalized but is expected to include S. 569 (115), the LWCF reauthorization bill introduced by Sen. Maria Cantwell (D-Wash.) with 47 cosponsors, including six Republicans. Energy Chairwoman Lisa Murkowski (R-Alaska), who also chairs the Appropriations subcommittee responsible for the Interior Department, is not a co-sponsor of the bill but has voiced support for moving a reauthorization before the end of the year.

Senators are staying mum about their disagreements with Bishop over whether LWCF should be subject to mandatory or discretionary appropriations, and supporters of Cantwell's bill have largely stopped short of endorsing the House version. A spokesperson for Sen. Richard Burr (R-N.C.), a co-sponsor of Cantwell's bill, declined to comment on the dispute. Sen. Steve Daines (R-Mont.) another co-sponsor, "believes permanent reauthorization and full funding are both critical to the program's success in Montana and the rest of the nation," a spokeswoman said.

Outside groups, including the League of Conservation Voters, plan to keep pushing for a full, dedicated funding approach for LWCF contained in Cantwell's bill as the two chambers seek to iron out a final deal in the lame duck, said Alex Taurel, LCV's conservation program director.

Bishop said he is confident lawmakers will be able to reach a deal in the lame-duck session.

"We will solve the problem before the end of the year," he said. "Whether it's Sept. 30 or Dec. 1 doesn't make a damn bit of difference."

Backers, though, say it can take years to get projects executed and the uncertainty about future funding could delay their completion or prevent them from getting off the ground.

"For folks inside the beltway like Bishop it may seem like an artificial deadline, but I think for folks on the ground when they hear congressional gridlock... that level of uncertainty does have real impact and may pervade the process and slow things down at the local level," Jonathan Asher, senior representative for government relations with the Wilderness Society, told POLITICO. "We're a little behind the eight ball right now. We wish this could have gotten wrapped up before the end of authorization."

While the fund's pending expiration has not been much of an issue in this year's midterm election campaigns, environmental advocates and some Democrats blame Republicans for being in this position.

"If LWCF expires, I think there's going to be a lot of blame to go around," Taurel said. "Republican supporters, particularly in the House, haven't pushed their leaders hard enough to save this program."

A spokeswoman for Interior Secretary Ryan Zinke said "the Secretary absolutely supports permanent reauthorization." He added in a tweet last week he's "hopeful for reauthorization."

The deal reached by Bishop and Grijalva would ensure 40 percent of LWCF funds go state grants and 40 percent go to federal programs.

That measure cleared the House Natural Resources Committee, but Bishop now hopes to pair it with other bills as part of a lame-duck lands package. The lame-duck deal is likely to include another compromise bill, H.R. 6510 (115), that would create a dedicated funding source to address billions in the maintenance backlog on the nation's public lands, but Democrats fear the Utah Republican will attempt to add other controversial measures that would cost their support.

The Senate Energy and Natural Resources Committee markup is also expected to include legislation addressing the national parks maintenance backlog, S. 3172 (115).

There remain numerous question marks about how the process will proceed. Murkowski may see the parks maintenance and LWCF package as an opportunity to advance her long-stalled energy bill, S. 1460 (115).

One thing that is clear: A group of dedicated Senate LWCF backers, led by Burr, won't let up in their quest to get the program reauthorized.

"It's unfortunate that we are here today," Burr said Wednesday. "[But] I believe we will ultimately win this fight because our colleagues know this is the right thing to do ... We're going to be relentless."

It's not clear what Burr's next move will be — Senate leaders are poised to press on with consideration of a broad water resources package, S. 3021 (115), even if he drags out the procedural hurdles — but he could opt to hold up other legislation. Asher said "predicting Senator Burr is always a risky venture" but expected he would "intelligently put pressure where the best leverage point would be."

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Sent: 10/15/2018 7:48:03 PM
To: Richardson, RobinH [Richardson.RobinH@epa.gov]
Subject: FW: New statement on Ruth Etzel?

Fyi .. see below – cleared through ogc ..

Nancy Grantham
Office of Public Affairs
US Environmental Protection Agency
202-564-6879 (desk)
Ex. 6 (mobile)

From: Konkus, John
Sent: Monday, October 15, 2018 3:45 PM
To: Kevin Bogardus <kbogardus@eenews.net>; Abboud, Michael <abboud.michael@epa.gov>; Hewitt, James <hewitt.james@epa.gov>; Block, Molly <block.molly@epa.gov>; Press <Press@epa.gov>
Subject: RE: New statement on Ruth Etzel?

I sent this to Corbin FYI: "Dr. Etzel is currently on administrative leave because of serious reports made against her by staff regarding her leadership of the Office of Children's Health. It's unfortunate that she has decided to go to the press in what appears to be an attempt to distract from these allegations. The Agency believes Dr. Etzel's characterizations misrepresent the situation; this is about allegations of a person's actions, not the Office. Everyone involved should allow the Agency to continue looking into the allegations of inappropriate conduct, in the meantime the Office of Children's Health and our work to reduce lead exposure continue to be cornerstones of the EPA's work, just as they have always been." – EPA Spokesperson

Thank you.

From: Kevin Bogardus [mailto:kbogardus@eenews.net]
Sent: Monday, October 15, 2018 3:43 PM
To: Konkus, John <konkus.john@epa.gov>; Abboud, Michael <abboud.michael@epa.gov>; Hewitt, James <hewitt.james@epa.gov>; Block, Molly <block.molly@epa.gov>; Press <Press@epa.gov>
Subject: New statement on Ruth Etzel?

Hey everyone,

It's Kevin Bogardus with E&E News.

I'm seeing that there is a new EPA statement on Ruth Etzel in reaction to the CBS News interview. Can you pass it along to me as well?

Please let me know. Thanks for your help.

Kevin Bogardus
E&E News reporter
kbogardus@eenews.net
202-446-0401 (p)

Ex. 6 (c)
202-737-5299 (f)

Follow me @KevinBogardus

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Message

From: Bolen, Brittany [bolen.brittany@epa.gov]
Sent: 10/5/2018 7:18:54 PM
To: Jackson, Ryan [jackson.ryan@epa.gov]
Subject: FW: Federal Lead Strategy
Attachments: 8-31-2018 Draft FLS.docx

From: Howard, Sandra (OS/OASH) [mailto:Sandra.Howard@HHS.GOV]
Sent: Thursday, October 4, 2018 4:34 PM
To: Hughes, Hayley <hughes.hayley@epa.gov>; Wright, Don (HHS/OASH) <Don.Wright@hhs.gov>
Cc: Darwin, Veronica <darwin.veronica@epa.gov>; Bolen, Brittany <bolen.brittany@epa.gov>; Mansdoerfer, David (HHS/OASH) <David.Mansdoerfer@hhs.gov>; Bell, Kathryn (HHS/IOS) <Kathryn.Bell@hhs.gov>; Valentine, Steven (HHS/OASH) <Steven.Valentine@hhs.gov>
Subject: RE: Federal Lead Strategy

Attached is the most recent draft of the federal lead strategy, for use as our point of departure. It was prepared by the staff of the EPA Office of Children's Health Protection and reflects comments and concerns received during the LRM process, including the revised health goal drafted by HHS staff. However, the document has not been shared beyond the staff that needed to respond to LRM comments. I will attach it to the calendar invitation to be sent when the date/time is fixed.

Sandra N. Howard
Public Health Advisor
Office of Minority Health
U.S. Department of Health and Human Services

240-453-6157

From: Hughes, Hayley <hughes.hayley@epa.gov>
Sent: Thursday, October 04, 2018 12:25 PM
To: Howard, Sandra (OS/OASH) <Sandra.Howard@HHS.GOV>; Wright, Don (HHS/OASH) <Don.Wright@hhs.gov>
Cc: Darwin, Veronica <darwin.veronica@epa.gov>; Bolen, Brittany <bolen.brittany@epa.gov>; Mansdoerfer, David (HHS/OASH) <David.Mansdoerfer@hhs.gov>; Bell, Kathryn (HHS/IOS) <Kathryn.Bell@hhs.gov>; Valentine, Steven (HHS/OASH) <Steven.Valentine@hhs.gov>
Subject: Federal Lead Strategy

Hello Dr. Wright and Ms. Howard,

Thank you for providing us with your feedback on our proposed FLS, we appreciate your comments.

Ms. Howard, May I request a copy of the draft of the FLS in which you referred to as the coordinated version so we can work from the same document going forward. We have seen a number of versions and want to make sure that we are all working from the same version.

Thank you,

Hayley

Hayley Hughes, DrPH, MPH, CSP
EPA National Lead Coordinator
Office of the Administrator
US Environmental Protection Agency

Desk: 202.564.1116
Email: Hughes.hayley@epa.gov

Message

From: Gadhia, Ami [agadhia@aap.org]
Sent: 10/1/2018 8:27:10 PM
To: Jackson, Ryan [jackson.ryan@epa.gov]
CC: Laris, Zach [zlaris@aap.org]
Subject: RE: Letter to EPA Acting Administrator Wheeler re: EPA OCHP
Attachments: EPA OCHP Letter 10012018 FINAL updated.pdf

Dear Ryan:

Please refer to this version of the letter. Apologies for any confusion.

Ami

From: Gadhia, Ami
Sent: Monday, October 1, 2018 3:30 PM
To: 'Ryan Jackson' <jackson.ryan@epa.gov>
Cc: Gadhia, Ami <agadhia@aap.org>; Laris, Zach <zlaris@aap.org>
Subject: Letter to EPA Acting Administrator Wheeler re: EPA OCHP

Dear Ryan:

Please find attached a letter to Acting Administrator Wheeler re: recent troubling reports about the Office of Children's Health Protection. The letter also requests a meeting with the Acting Administrator.

Sincerely,

Ami Gadhia

Ami V. Gadhia
Director, Federal Advocacy and Regulatory Affairs
American Academy of Pediatrics
601 13th Street NW, Suite 400N
Washington, DC 20005
(202) 347-8600
@AmerAcadPeds

October 1, 2018

Andrew R. Wheeler, JD, MBA
Acting Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Acting Administrator Wheeler:

The undersigned groups write with great concern about the news reports[i] that Dr. Ruth Etzel, director of the Environmental Protection Agency (EPA) Office of Children's Health Protection (OCHP), has been placed on administrative leave.

Established in 1997, OCHP is the only office within EPA dedicated to the health of children. Children are not little adults, and OCHP, as well as its pediatrician leadership, have the expertise to inform EPA policymaking so that it adequately protects children. Without this office and pediatric expertise, we are concerned that EPA policy could inadvertently harm or exclude children.

By placing Dr. Etzel on leave, the EPA has sent a signal that children's health is not a priority for the agency. We are particularly perplexed that this move has happened mere days before the start of Children's Health Month. The undersigned groups ask that EPA immediately clarify what action it has taken with regards to Dr. Etzel and with regards to OCHP, and make no further attempts to dismantle, re-organize, diminish, or otherwise reduce the abilities and authorities of OCHP.

In addition, by this letter the undersigned organizations formally request a meeting with you and the heads of our organizations. To arrange this meeting, please contact Ami Gadhia at the American Academy of Pediatrics, at agadhia@aap.org or (202) 347-8600.

Sincerely,

Academic Pediatric Association
African American Health Alliance
Alaska Community Action on Toxics
Allergy & Asthma Network
Alliance of Nurses for Healthy Environments
American Academy of Allergy, Asthma & Immunology
American Academy of Pediatrics
American Academy Pediatrics, Maryland Chapter
American Academy of Pediatrics, Pennsylvania Chapter
American Pediatric Society

ED_002399_00027361-00001

American Public Health Association
As You Sow
Association of Public Health Laboratories
Asthma and Allergy Foundation of America
Black Millennials for Flint
Breast Cancer Coalition of Rochester
Breast Cancer Prevention Partners
California Brain Tumor Association
California Safe Schools
Center for Climate Change and Health
Center for Environmental Health
Central California Asthma Collaborative
Ceres Community Project
Child Care Aware® of America
Childhood Lead Action Project
Children's Environmental Health Network
Children's Hospital of Philadelphia
Clean Water Action
Climate for Health
Coalition to Prevent Lead Poisoning
Collaborative for High Performance Schools
Collaborative on Health and the Environment
Columbia Center for Children's Environmental Health
Daily Acts Organization
Earthjustice
ecoAmerica
Ecology Center
Emory University Nell Hodgson Woodruff School of Nursing
Environmental Defense Fund
Environmental Health Strategy Center
Environmental Health Student Association
Environmental Health Watch
Environmental Integrity Project
Environmental Working Group

ED_002399_00027361-00002

First Focus
Green & Healthy Homes Initiative
Health Care Without Harm
Healthy Babies Bright Futures
Healthy Building Network
Healthy Children Project
Healthy Schools Network
Icahn School of Medicine at Mount Sinai
Institute of Neurotoxicology & Neurological Disorders
International Society for Children's Health and the Environment
International Society of Environmental Epidemiology
Johns Hopkins Bloomberg School of Public Health
Johns Hopkins Department of Environmental Health and Engineering
Lead Safe Mama, LLC
Learning Disabilities Association of America
Learning Disabilities Association of Illinois
Learning Disabilities Association of Maine
Learning Disabilities Association of Minnesota
Learning Disabilities Association of South Carolina
Learning Disabilities Association of Tennessee
Learning Disabilities Association of Utah
Learning Disabilities Association of Western New York
Learning Disabilities of America of Texas
March of Dimes
Maryland Institute for Applied Environmental Health
Moms Clean Air Force
National Association of County and City Health Officials
National Association of Pediatric Nurse Practitioners
National Center for Healthy Housing
National Resource Center for Health and Safety in Child Care and Early Education
Natural Resources Defense Council
Northeast Ohio Black Health Coalition
Ohio Environmental Council

ED_002399_00027361-00003

Ohio Healthy Homes Network

Oregon Environmental Council

Oregon Physicians for Social Responsibility

Parents For Students Safety

Pediatric Public Health Initiative

Pennsylvania Head Start Association

Pesticide Action Network

Physicians for Social Responsibility

Physicians for Social Responsibility, Tennessee Chapter

Physicians for Social Responsibility, Los Angeles

Physicians for Social Responsibility Maine Chapter

Physicians for Social Responsibility, Pennsylvania Chapter

Physicians for Social Responsibility, Wisconsin Chapter and the Wisconsin Environmental Health Network

Physicians for Social Responsibility, Philadelphia

Physicians for Social Responsibility, San Francisco Bay Area Chapter

Physicians for Social Responsibility, Colorado Chapter

Physicians for Social Responsibility, Florida Chapter

Pioneer Valley Asthma Coalition

Prevention Institute

Public Health Institute

Rachel Carson Council

Rachel's Network

Racial and Ethnic Health Disparities Coalition

Revitalize Community Development Corporation

Riley Asthma Program

Safer Chemicals Healthy Families

Safer States

Sears-Swetland Family Foundation

Sierra Club

Society for Public Health Education

Sonoma County Conservation Action

Southern Adirondack Child Care Network

Southwest Minnesota Housing Partnership

ED_002399_00027361-00004

The Great Lakes Center for Children's Environmental Health
Toxics Information Project
Trust for America's Health
UCLA Center for Occupational and Environmental Health
UCLA Fielding School of Public Health
UCSF School of Nursing California Childcare Health Program
Union of Concerned Scientists
Virginia Clinicians for Climate Action
WE ACT for Environmental Justice
Women for a Healthy Environment
350 Bay Area

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[i] *"E.P.A. Places the Head of Its Office of Children's Health on Leave," available at* https://www.nytimes.com/2018/09/26/climate/epa-etzel-children-health-program.html.

ED_002399_00027361-00005

Message

From: Brazauskas, Joseph [brazauskas.joseph@epa.gov]
Sent: 10/15/2018 9:47:48 PM
To: Leopold, Matt (OGC) [Leopold.Matt@epa.gov]; Konkus, John [konkus.john@epa.gov]; Jackson, Ryan [jackson.ryan@epa.gov]
Subject: RE: DRAFT

John sent the statement in my previous email to E&E News. Matt and I worked on some additional language that we may be able to use and we feel is stronger than what we have said previously. Please let us know if there are any comments or suggestions.

Deliberative Process / Ex. 5

Joseph A. Brazauskas
Associate Deputy General Counsel
U.S. Environmental Protection Agency
(202) 564-5189

From: Brazauskas, Joseph
Sent: Monday, October 15, 2018 2:11 PM
To: Leopold, Matt (OGC) <Leopold.Matt@epa.gov>; Konkus, John <konkus.john@epa.gov>; Jackson, Ryan <jackson.ryan@epa.gov>
Subject: RE: DRAFT

Deliberative Process / Ex. 5

Joseph A. Brazauskas
Associate Deputy General Counsel
U.S. Environmental Protection Agency
(202) 564-5189

From: Leopold, Matt (OGC)
Sent: Monday, October 15, 2018 12:29 PM
To: Brazauskas, Joseph <brazauskas.joseph@epa.gov>
Subject: FW: DRAFT

FYI

From: Konkus, John
Sent: Monday, October 15, 2018 12:27 PM
To: Jackson, Ryan <jackson.ryan@epa.gov>; Leopold, Matt (OGC) <Leopold.Matt@epa.gov>
Subject: DRAFT

I just came up with this. Let me know:

Deliberative Process / Ex. 5

Otherwise, we'll keep sending the same things we've been sending:

"Although EPA does not customarily comment on personnel matters, due to circulating misinformation, the Director of EPA's Office of Children's Health Protection was placed on leave to give the Agency the opportunity to review allegations about the Director's leadership of the office." **– EPA Chief of Staff, Ryan Jackson**

"Children's health is and has always been a top priority for the Trump Administration and the EPA in particular is focused on reducing lead exposure in schools, providing funds for a cleaner school bus fleet, and cleaning up toxic sites so that children have safe environments to learn and play. These are just a few of the dozens of objectives the EPA's Office of Children's Health will continue work on during this administration." **— EPA Spokesperson**

John Konkus
Environmental Protection Agency
Deputy Associate Administrator for Public Affairs
Mobile: Ex. 6

Message

From: Konkus, John [konkus.john@epa.gov]
Sent: 10/15/2018 8:39:50 PM
To: Jackson, Ryan [jackson.ryan@epa.gov]
Subject: This is good. Press is pushing back on her...

Employee's TV interview 'unfortunate' — spokesperson

Corbin Hiar, E&E News reporter

Published: Monday, October 15, 2018

EPA's top children's health official, Ruth Etzel, told CBS today that she received no warnings or explanations before she was suspended. CBS News

EPA this afternoon escalated a spat with the agency's top children's health official, Ruth Etzel, who was placed on leave under mysterious circumstances late last month.

"Dr. Etzel is currently on administrative leave because of serious reports made against her by staff regarding her leadership of the Office of Children's Health," the agency said in a brief statement attributed to an EPA spokesperson. "It's unfortunate that she has decided to go to the press in what appears to be an attempt to distract from these allegations."

The agency was referring to an interview Etzel did with CBS News that ran this morning in which she criticized the Trump administration for weakening environmental protections and claimed she received no warnings or explanations before she was suspended (*Greenwire*, Oct. 15).

"This is totally wrong, and the only people that I really report to are mothers and fathers and communities in the United States," Etzel told CBS. "And if EPA won't let me tell about how children are being poisoned, I'll just tell the mothers and fathers directly. I have that right, whether or not EPA wants me on their staff."

CBS correspondent Anna Werner went on to ask Etzel how she would respond if EPA officials "say, 'Well, you did these things wrong.'"

Advertisement

"If I did, then I'll say, 'OK,'" Etzel said. "If I didn't, then I'll say, 'I didn't.' You know? But I don't know what the allegation is, so it's very hard to know, but basically I'm a straight shooter, I'm transparent. So if I make a mistake, I own it."

The EPA spokesperson, however, argued that Etzel was incorrectly conflating leadership's concerns about her job performance with the administration's commitment to children's health.

"The Agency believes Dr. Etzel's characterizations misrepresent the situation; this is about allegations of a person's actions, not the Office," the spokesperson said. "Everyone involved should allow the Agency to continue looking into the allegations of inappropriate conduct, in the meantime the Office of Children's Health and our work to reduce lead exposure continue to be cornerstones of the EPA's work, just as they have always been."

Message

From: Konkus, John [konkus.john@epa.gov]
Sent: 10/15/2018 7:16:59 PM
To: Jackson, Ryan [jackson.ryan@epa.gov]
Subject: RE: Draft // OGC Signed Off

Thanks.

From: Jackson, Ryan
Sent: Monday, October 15, 2018 3:16 PM
To: Konkus, John <konkus.john@epa.gov>
Subject: Re: Draft // OGC Signed Off

This is fine. Go with it.

Ryan Jackson
Chief of Staff
U.S. EPA

Ex. 6

On Oct 15, 2018, at 1:35 PM, Konkus, John <konkus.john@epa.gov> wrote:

> "Dr. Etzel is currently on administrative leave because of serious reports made against her by staff regarding her leadership of the Office of Children's Health. It's unfortunate that she has decided to go to the press in what appears to be an attempt to distract from these allegations. The Agency believes Dr. Etzel's characterizations misrepresent the situation; this is about allegations of a person's actions, not the Office. Everyone involved should allow the Agency to continue looking into the allegations of inappropriate conduct, in the meantime the Office of Children's Health and our work to reduce lead exposure continue to be cornerstones of the EPA's work, just as they have always been."

Message

From: Bolen, Brittany [bolen.brittany@epa.gov]
Sent: 8/28/2018 10:57:03 PM
To: Darwin, Veronica [darwin.veronica@epa.gov]
CC: Jackson, Ryan [jackson.ryan@epa.gov]
Subject: FW: Lead Strategy Discussion
Attachments: 7-16-2018 FLS MS.docx; Response to LRM Comments OMB.xlsx; Response to LRM Comments EPAb.xlsx; Response to LRM Comments HUD.xlsx; Response to LRM Comments HHS.xlsx

Here is the last version I received of the strategy. Haley was out on travel for couple weeks, but we're supposed to connect tomorrow at 3pm if you'd to join. Henry and I last week also discussed next steps and working with Haley. He scheduled a meeting on Monday, Sept. 10 with everyone involved – including Ruth who has been managing the steering committee.

From: Lovell, Will (William)
Sent: Tuesday, August 28, 2018 6:28 PM
To: Bolen, Brittany <bolen.brittany@epa.gov>
Subject: FW: Lead Strategy Discussion

From: Firestone, Michael
Sent: Monday, July 16, 2018 7:15 AM
To: Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>; Bolen, Brittany <bolen.brittany@epa.gov>; Kime, Robin <Kime.Robin@epa.gov>; Etzel, Ruth <Etzel.Ruth@epa.gov>; Grantham, Nancy <Grantham.Nancy@epa.gov>; Hughes, Hayley <hughes.hayley@epa.gov>
Cc: Peffers, Mel <Peffers.Mel@epa.gov>
Subject: RE: Lead Strategy Discussion

All

Please find attached the latest revision to the federal lead strategy, along with response to comment spreadsheets for OMB, HUD, EPA & HHS.

Note: The response to comments do not cover specific changes to the original goals 2 & 3 (now Goal 2) as we have asked HHS to prepare this. The OMB recommendation to consolidate the original goals 2 & 3 are discussed in the response to OMB comments.

Michael Firestone, Ph.D., Acting Deputy Director
Office of Children's Health Protection
U.S. Environmental Protection Agency
Phone: 202-564-2199
Cell: Ex. 6

-----Original Appointment-----
From: Wooden-Aguilar, Helena
Sent: Wednesday, July 11, 2018 4:00 PM
To: Wooden-Aguilar, Helena; Bolen, Brittany; Kime, Robin; Etzel, Ruth; Firestone, Michael; Grantham, Nancy; Hughes, Hayley
Cc: Peffers, Mel
Subject: Lead Strategy Discussion

When: Monday, July 16, 2018 10:30 AM-11:00 AM (UTC-05:00) Eastern Time (US & Canada).
Where: WJC-N., 3304

Message

From: Jackson, Ryan [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=38BC8E18791A47D88A279DB2FEC8BD60-JACKSON, RY]
Sent: 10/1/2018 7:33:38 PM
To: Dickerson, Aaron [dickerson.aaron@epa.gov]
Subject: FW: Letter to EPA Acting Administrator Wheeler re: EPA OCHP
Attachments: EPA OCHP Letter 10012018 FINAL.pdf

Please place on agenda for tomorrow morning.

From: Gadhia, Ami [mailto:agadhia@aap.org]
Sent: Monday, October 1, 2018 3:30 PM
To: Jackson, Ryan <jackson.ryan@epa.gov>
Cc: Gadhia, Ami <agadhia@aap.org>; Laris, Zach <zlaris@aap.org>
Subject: Letter to EPA Acting Administrator Wheeler re: EPA OCHP

Dear Ryan:

Please find attached a letter to Acting Administrator Wheeler re: recent troubling reports about the Office of Children's Health Protection. The letter also requests a meeting with the Acting Administrator.

Sincerely,

Ami Gadhia

Ami V. Gadhia
Director, Federal Advocacy and Regulatory Affairs
American Academy of Pediatrics
601 13th Street NW, Suite 400N
Washington, DC 20005
(202) 347-8600
@AmerAcadPeds

October 1, 2018

Andrew R. Wheeler, JD, MBA
Acting Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Acting Administrator Wheeler:

The undersigned groups write with great concern about the news reports[i] that Dr. Ruth Etzel, director of the Environmental Protection Agency (EPA) Office of Children's Health Protection (OCHP), has been placed on administrative leave.

Established in 1997, OCHP is the only office within EPA dedicated to the health of children. Children are not little adults, and OCHP, as well as its pediatrician leadership, have the expertise to inform EPA policymaking so that it adequately protects children. Without this office and pediatric expertise, we are concerned that EPA policy could inadvertently harm or exclude children.

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In addition, by this letter the undersigned organizations formally request a meeting with you and the heads of our organizations. To arrange this meeting, please contact Ami Gadhia at the American Academy of Pediatrics, at agadhia@aap.org or (202) 347-8600.

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African American Health Alliance
Alaska Community Action on Toxics
Allergy & Asthma Network
Alliance of Nurses for Healthy Environments
American Academy of Allergy, Asthma & Immunology
American Academy of Pediatrics
American Academy Pediatrics, Maryland Chapter
American Academy of Pediatrics, Pennsylvania Chapter
American Pediatric Society

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American Public Health Association
As You Sow
Association of Public Health Laboratories
Asthma and Allergy Foundation of America
Black Millennials for Flint
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California Brain Tumor Association
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Ceres Community Project
Child Care Aware® of America
Childhood Lead Action Project
Children's Environmental Health Network
Children's Hospital of Philadelphia
Climate for Health
Coalition to Prevent Lead Poisoning
Collaborative for High Performance Schools
Collaborative on Health and the Environment
Columbia Center for Children's Environmental Health
Daily Acts Organization
Earthjustice
ecoAmerica
Ecology Center
Emory University Nell Hodgson Woodruff School of Nursing
Environmental Defense Fund
Environmental Health Strategy Center
Environmental Health Student Association
Environmental Health Watch
Environmental Integrity Project
Green & Healthy Homes Initiative
Health Care Without Harm
Healthy Babies Bright Futures

ED_002399_00028113-00002

Healthy Building Network

Healthy Children Project

Healthy Schools Network

Icahn School of Medicine at Mount Sinai

Institute of Neurotoxicology & Neurological Disorders

International Society for Children's Health and the Environment

International Society of Environmental Epidemiology

Johns Hopkins Bloomberg School of Public Health

Johns Hopkins Department of Environmental Health and Engineering

Lead Safe Mama, LLC

Learning Disabilities Association of America

Learning Disabilities Association of Illinois

Learning Disabilities Association of Maine

Learning Disabilities Association of Minnesota

Learning Disabilities Association of South Carolina

Learning Disabilities Association of Tennessee

Learning Disabilities Association of Utah

Learning Disabilities Association of Western New York

Learning Disabilities of America of Texas

March of Dimes

Moms Clean Air Force

National Association of County and City Health Officials

National Association of Pediatric Nurse Practitioners

National Center for Healthy Housing

National Resource Center for Health and Safety in Child Care and Early Education

Natural Resources Defense Council

Northeast Ohio Black Health Coalition

Ohio Environmental Council

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Oregon Physicians for Social Responsibility

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Physicians for Social Responsibility, Tennessee Chapter

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Physicians for Social Responsibility Maine Chapter

Physicians for Social Responsibility, Pennsylvania Chapter

Physicians for Social Responsibility, Wisconsin Chapter and the Wisconsin Environmental Health Network

Physicians for Social Responsibility, Philadelphia

Physicians for Social Responsibility, San Francisco Bay Area Chapter

Physicians for Social Responsibility, Colorado Chapter

Physicians for Social Responsibility, Florida Chapter

Pioneer Valley Asthma Coalition

Prevention Institute

Public Health Institute

Rachel Carson Council

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Racial and Ethnic Health Disparities Coalition

Revitalize Community Development Corporation

Riley Asthma Program

Safer Chemicals Healthy Families

Safer States

Sears-Swetland Family Foundation

Sierra Club

Society for Public Health Education

Sonoma County Conservation Action

Southern Adirondack Child Care Network

Southwest Minnesota Housing Partnership

The Great Lakes Center for Children's Environmental Health

Toxics Information Project

Trust for America's Health

UCLA Center for Occupational and Environmental Health

UCLA Fielding School of Public Health

ED_002399_00028113-00004

UCSF School of Nursing California Childcare Health Program
Virginia Clinicians for Climate Action
WE ACT for Environmental Justice
Women for a Healthy Environment
350 Bay Area

---

[i] *"E.P.A. Places the Head of Its Office of Children's Health on Leave," available at* https://www.nytimes.com/2018/09/26/climate/epa-etzel-children-health-program.html.

ED_002399_00028113-00005

Message

From: Jackson, Ryan [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=38BC8E18791A47D88A279DB2FEC8BD60-JACKSON, RY]
Sent: 9/21/2018 8:45:40 PM
To: Bennett, Tate [Bennett.Tate@epa.gov]
Subject: FW: Oct 1 Children's Health Materials
Attachments: Children's Health October 2018 092118.docx; Children's Health October 2018 One Pager.docx

Do we have something Philadelphia in mind for Oct 1?

-----Original Message-----
From: Darwin, Veronica
Sent: Friday, September 21, 2018 4:17 PM
To: Jackson, Ryan <jackson.ryan@epa.gov>; Konkus, John <konkus.john@epa.gov>; Block, Molly <block.molly@epa.gov>; Grantham, Nancy <Grantham.Nancy@epa.gov>; Bennett, Tate <Bennett.Tate@epa.gov>
Subject: Oct 1 Children's Health Materials

Hi,
Find attached the draft Children's Health materials highlighting some of the EPA initiatives currently underway. I organized the initiatives based on the priorities of the President's Task Force on the Protection of Children from Environmental Health Risks and Safety Risks. It is not a comprehensive list of EPA initiatives related to children's health - the intent is to highlight some of the initiatives and refer the reader to EPA's Children's Environmental Health webpage. We'll need to update the webpage to make sure all the appropriate links are accessible. I worked with Angela Hackel in the Office of Children's Health Protection in drafting the report.

I need your feedback. I'm happy to edits as needed. OPA will do their magic with the document once finalized.

Tate - I attached a draft one-pager for your review.

-----Original Message-----
From: Jackson, Ryan
Sent: Tuesday, September 18, 2018 7:50 AM
To: Konkus, John <konkus.john@epa.gov>; Block, Molly <block.molly@epa.gov>; Grantham, Nancy <Grantham.Nancy@epa.gov>; Darwin, Veronica <darwin.veronica@epa.gov>
Subject:

Please include a reference to the latest IG report and what we have done on asbestos in the school document for oct 1.

Also I know this is quick turnaround but I need to have a draft of what this may look like on Friday.

Ryan Jackson
Chief of Staff
U.S. EPA

Ex. 6

Message

From: Grantham, Nancy [Grantham.Nancy@epa.gov]
Sent: 9/28/2018 3:20:21 PM
To: Konkus, John [konkus.john@epa.gov]; Grantham, Nancy [Grantham.Nancy@epa.gov]
Subject: FW: OCHP articles
Attachments: Children's Health Director.docx

Nancy Grantham
Office of Public Affairs
US Environmental Protection Agency
202-564-6879 (desk)
Ex. 6 **(mobile)**

NYT: E.P.A. Places the Head of Its Office of Children's Health on Leave

The Hill: EPA puts top children's health official on leave

Think Progress: Trump EPA's 'sneaky' new move in its war on children's health

Vox: The Trump administration's attack on children's health protections

Bloomberg BNA: Children's Health Chief Put on Leave, Says EPA Seeks to 'Cause Chaos'

Buzzfeed News: The EPA Just Put A Top Official On Leave. She Says They're Trying To "Disappear" A Children's Health Program.

CNN: EPA makes changes at research, child health offices

EE News: Children's health director abruptly put on leave

EcoWatch: EPA Shakeup Risks Sidelining Science, Environmentalists Say

Politico: Permanent Conservation?

Trump Administration Deals Major Blow To Children's Health Programs

NYT: E.P.A. Places the Head of Its Office of Children's Health on Leave

https://www.nytimes.com/2018/09/26/climate/epa-etzel-children-health-program.html

By Coral Davenport and Roni Caryn Rabin- Sept. 26, 2018

WASHINGTON — The Environmental Protection Agency on Tuesday placed the head of its Office of Children's Health Protection on administrative leave, in an unusual move that several observers said appeared to reflect an effort to minimize the role of the office.

Dr. Ruth Etzel, a pediatrician and epidemiologist who has been a leader in children's environmental health for 30 years, joined the E.P.A. in 2015, after having served as a senior officer for environmental health research at the World Health Organization. She was placed on administrative leave late Tuesday and asked to hand over her badge, keys and cellphone, according to an E.P.A. official familiar with the decision who was not authorized to discuss the move and asked not to be identified.

An E.P.A. spokesman, John Konkus, declined to give a reason for the administrative leave.

The E.P.A.'s Office of Children's Health Protection, created by President Bill Clinton in 1997, is tasked with seeing that agency regulations and programs take into account the particular vulnerabilities of children, babies and fetuses. Children are more vulnerable than adults to pollution and other potential exposure because their bodies are still developing and because they eat, drink and breathe more in proportion to their size. In addition, some of their behaviors, such as crawling or putting things in their mouths, potentially expose them to chemicals or toxins.

Several people within the E.P.A. or who work closely with the agency said that Dr. Etzel's dismissal is one of several recent developments that have slowed the work of the children's health office. One person cited a proposal outlining a strategy for reducing childhood lead exposure, which had been in development for over a year with the involvement of 17 federal agencies, and which has been stalled since early July.

The Office of Children's Health Protection is technically housed in the office of the E.P.A. administrator, Andrew Wheeler, who has served as the agency's acting administrator since July.

Under Mr. Wheeler and his predecessor, Scott Pruitt, who left the position earlier this year amid investigations into his oversight of the agency, the E.P.A. has aggressively pursued an agenda of rolling back environmental restrictions on numerous pollutants, arguing that the regulations are overly strict or that they burden industry.

"This seems like a sneaky way for the E.P.A. to get rid of this program and not be upfront about it," said Dr. Mona Hanna-Attisha, the director of the pediatric residency program at Hurley Medical Center, a teaching hospital affiliated with Michigan State University, whose analysis of blood tests in Flint, Mich. — a community that became caught up in a lead crisis affecting its drinking water — played a key role in showing that residents were being poisoned by the lead. Dr. Hanna-Atisha called Dr. Etzel "an international leader in children's health."

The decision to put the department head on administrative leave "is highly unusual," said Joseph Goffman, a former senior counsel for the E.P.A. during the Obama administration.

The office Dr. Etzel oversees is small, with a budget of about $2 million and 15 full-time employees in Washington and 10 regional children's health coordinators, some of whom have other responsibilities in addition to children's health.

Mr. Konkus, the E.P.A. spokesman, said the Trump administration had no intention to diminish or eliminate an office designed to protect children's health. "Children's health is and has always been a top priority for the Trump administration and the E.P.A. in particular is focused on reducing lead exposure in schools, providing funds for a cleaner school bus fleet and cleaning up toxic sites so that children have safe environments to learn and play," he said in an emailed statement.

The Hill: EPA puts top children's health official on leave

https://thehill.com/policy/energy-environment/408475-epa-puts-top-childrens-health-official-on-leave

BY JOHN BOWDEN - 09/26/18 09:54 AM EDT

The Environmental Protection Agency (EPA) on Tuesday placed Office of Children's Health Protection director Dr. Ruth Etzel on administrative leave without explanation in a move critics warn could be part of an effort to shut the office down.

The New York Times reports that Etzel was placed on leave and asked to hand over her badge, keys and cellphone, according to an EPA official who was familiar with the decision but would not speak publicly.

An agency spokesman confirmed to the Times that Etzel had been suspended but denied that the move was part of an effort to shutter the EPA's children's health programs.

"Children's health is and has always been a top priority for the Trump administration and the EPA in particular is focused on reducing lead exposure in schools, providing funds for a cleaner school bus fleet and cleaning up toxic sites so that children have safe environments to learn and play," John Konkus told the Times.

But the director of the pediatric residency program at Hurley Medical Center, a teaching hospital that serviced children affected by the Flint, Mich., lead water crisis, warned the Times that the move could be a "sneaky" way for the Trump administration to shift the EPA's priorities.

"This seems like a sneaky way for the EPA to get rid of this program and not be upfront about it," Dr. Mona Hanna-Attisha told the Times, adding that Etzel is "an international leader in children's health."

Other EPA sources told the Times that Etzel's suspension was just the latest move slowing productivity in the EPA's small 15-person Office of Children's Health Protection, citing a multi-agency study on childhood lead exposure undertaken by the office last year but allegedly stalled by the Trump administration since July.

The EPA has seen major staff cuts under President Trump. Since he took office, the agency has reportedly lost 8 percent of its total staff, totaling nearly 1,600 workers, in an 18-month period.

EPA Acting Director Andrew Wheeler told The Washington Post earlier this month that his focus is on recruiting talent while not focusing on total staff levels.

"With nearly half of our employees eligible to retire in the next five years, my priority is recruiting and maintaining the right staff, the right people for our mission, rather than total full-time employees," he said.

Think Progress: Trump EPA's 'sneaky' new move in its war on children's health

https://thinkprogress.org/trump-epas-sneaky-new-move-in-its-war-on-childrens-health-74fc9f55ce84/
by JOE ROMM- SEP 26, 2018, 12:08 PM

Acting Environmental Protection Agency (EPA) administrator Andrew Wheeler isn't going to end Trump's war on children's health.

But the former coal lobbyist does have sneakier tactics than his much-investigated predecessor Scott Pruitt.

Wheeler has put the Director of the Office of Children's Health Protection (OCHP), Dr. Ruth Etzel, on administrative leave without explanation. Etzel, as the EPA's website notes, is an award-winning pediatrician and public health expert whose career "to protect children from hazards in the environment" spans three decades.

"This seems like a sneaky way for the E.P.A. to get rid of this program and not be upfront about it," as Dr. Mona Hanna-Attisha told the New York Times. Dr. Hanna-Attisha is the pediatrician whose tests of children's blood revealed elevated lead levels in Flint Michigan's water. And a former EPA official called the move "highly unusual."

The Trump EPA has been working to undermine the children's health office for a while, according to several people in and out of the agency who spoke to the Times. For instance, the paper reports that since July, the EPA has stalled a year-long effort by the OCHP to develop an inter-agency strategy to cut children's lead exposure.

What's especially worrisome with this is that children are much more vulnerable to pollution and toxins than adults because key organs are still developing, they put things in their mouth (like lead paint), and "they eat more, drink more, and breathe more in proportion to their body size," as the OCHP website explains.

This special vulnerability is why President Bill Clinton and then EPA-Chief Carol Browner created the office in the first place in 1997. It was given an explicit mission "to make the protection of children's health a fundamental goal of public health and environmental protection in the United States."

Viral photo of two-year-old Honduran asylum seeker crying as her mother is searched and detained near the U.S.-Mexico border on June 12, 2018 in McAllen, Texas. CREDIT: John Moore/Getty Images
Trump's border policies aren't the only ones 'cruel' and 'toxic ' to children
But under Trump, this goal appears to no longer be a priority.

In 2017, for example, Pruitt rejected a ban on the organophospate pesticide chlorpyrifos, which paralyzes the nervous system of insects — and which has been linked directly to fetal brain damage. Indeed, one study found that "US children born in 2010 lost 1.8 million IQ points and 7,500 children had their IQs shifted into the intellectual disability range as a result of prenatal organophosphate exposures."

And in August, Trumps' own EPA conceded that replacing President Obama's climate plan for electric utilities with his new plan would lead to as many as 120,000 more cases of worsened asthma a year. Sicker kids also mean up to 140,000 more school absence days each year.

The smoke stack of the 47-year old Cheswick coal-fired power plant in Springdale, PA, October 26, 2017. CREDIT: Robert Nickelsberg/Getty Images
EPA admits Trump would sacrifice thousands of U.S. lives to save a few coal plants
Let's remember that Trump's efforts to undermine global climate action is literally stealing our children's future livable climate to enrich fossil fuel companies.

But it's not just climate policy he's targeting. As ThinkProgress reported in June, Trump also wants to fix the deficit, caused by his tax cuts, by cutting billions from children's health care.

So, that's what makes the Trump administration's war on children's health so dangerous. And putting the head of the program on leave is simply the latest example.

Vox: The Trump administration's attack on children's health protections

https://www.vox.com/2018/9/27/17905858/trump-children-health-epa-immigration

By Julia Belluz and Umair Irfan Sep 27, 2018, 12:00pm EDT

Cardboard cutouts of children wearing surgical masks are seen during a protest outside the Environmental Protection Agency on August 2, 2018, in Washington, DC. Alex Wong/Getty Images

The New York Times reported this week that the Environmental Protection Agency placed the head of its Office of Children's Health Protection, Ruth Etzel, on leave.

Perhaps you've never heard of Etzel or her office. It's small, with a $2 million budget and only 15 full-time employees. But it has the huge responsibility of protecting the youngest people from environmental hazards. And pushing out the boss, a 30-year career employee, rang alarm bells for children's health professionals.

"Dr. Etzel is a well-respected giant in the field of pediatric environmental health," Mona Hanna-Attisha, director of the pediatric residency program at Hurley Medical Center, told Vox. "Her role is critical to ensuring that children — who are disproportionately impacted by environmental burdens — are protected." Removing her, Hanna-Attisha added, may be seen as "a threat to today's children and generations of children who will bear the brunt of this anti-science and shortsighted disinvestment."

The removal of Etzel also appears to be part of a pattern across the Trump administration to repeal, dial back, or stall environmental regulations that were designed to protect kids' health. Those moves come alongside other administration policies, on issues like immigration and public welfare, that stand to have severe health consequences for children.

There's a reason the government has regulations in place specifically to protect kids. Little ones are more vulnerable to environmental toxicants; their bodies and brains are developing, and early exposures to harmful substances can have lasting impacts. As the EPA itself notes on its website, children are not little adults. Young people can also suffer lasting health problems from disruptions to nutrition, housing, health care, and family life.

Policymakers have historically recognized this, crafting rules to protect children from toxic chemicals, malnutrition, and abuse. The Trump administration's attempts to soften or roll back these protections is especially jarring considering we live in a country where kids are already more likely to die before adulthood compared those in other high-income countries.

Here's a quick rundown of what's been happening, and four areas to watch.

1) Reversing a ban on a pesticide EPA's own analysis finds is particularly harmful to children

In August, the Ninth Circuit ordered the EPA to ban the pesticide chlorpyrifos. But the Department of Justice this week tried to fight the ban and filed an appeal of the decision.

The pesticide is used to kill insects in nearly 100 countries across 8.5 million crop acres per year, making it the most widely used pesticide in agriculture. However, studies have found that chlorpyrifos causes

brain damage in children. Researchers reported that its effects take root in utero and manifest when the child is older as lower intelligence and other neurological defects.

Health campaigners petitioned the EPA to determine that there is no safe exposure level for the chlorpyrifos, paving the way for a total ban.

Last year, then-EPA Administrator Scott Pruitt denied the petition, even though the agency's own assessment stated the "EPA cannot find that any current tolerances are safe and is therefore proposing to revoke all chlorpyrifos tolerances."

If the legal fight continues, the Supreme Court will have to weigh in on the chlorpyrifos ban.

2) Attempting to delay new lead safety standards for children
Lead is a naturally occurring heavy metal found in mineral deposits in the Earth's crust. It's also a poisonous substance for humans. Inside the body, lead can slip into human cells easily and wreak havoc. In children, particularly those under the age of 10 or babies in the womb, the metal can pass through the blood-brain barrier and kill off brain cells. Children absorb up to five times as much lead as adults, and with their smaller bodies and developing nervous systems, it doesn't take much to sicken them.

That's why federal and local environmental policies have focused on reducing lead in our environment, and especially protecting children. It's also why agencies like the Centers for Disease Control and Prevention have recently determined there's actually no known safe blood concentration for children.

In 2017, the EPA asked for a six-year delay to update 17-year-old regulations on lead in paint and dust, including determining new standards on safe lead levels of lead exposure for children. In December, an appeals court forced the agency to finalize its updated standard within a year.

3) Using immigration policy to limit access to social services
It's not just trauma of separating children from their asylum-seeking parents at the border: Trump's proposed immigration rules will harm the health of children of would-be green card holders, too — and the administration knows it.

On Saturday, the Department of Homeland security unveiled a draft regulation that would change how the government evaluates new green card holders, making it possible to deny entry to anyone who is likely to become "public charge." As Vox's Dara Lind explained, this could "change the face of legal immigration" in this country, depending on how the document, if finalized, is interpreted.

Lind writes: "the way the regulation is laid out, as long as an immigrant not reliant on social services, not making enough money doesn't in itself count against an immigrant — she just doesn't get points in her favor."

Buried in the document is DHS's own acknowledgment that the change will harm children. In a list of potential "follow-on effects" from the new policy, the document reads: "Worse health outcomes, including increased prevalence of obesity and malnutrition, especially for pregnant or breastfeeding women, infants, or children, and reduced prescription adherence."

That's because, as Lind explains, the new policy would send the "message that immigrants can be punished for using public benefits — and so they should play it safe and un-enroll, or not enroll at all."

4) Lifting controls on toxic air pollution
Of course, many of the things that harm adults also harm children, so the long list of environmental regulation rollbacks under the Trump administration also pose risks for kids, even when the rules aren't specifically meant to protect the young.

Air pollution, for example, is particularly hazardous to children, exacerbating infant mortality, asthma, and developmental delays. Earlier this year, the EPA took steps toward deregulating major sources of toxic air pollution. The agency is also relaxing emissions and fuel economy standards for cars, one of the largest sources of air pollution.

Many of these proposals haven't taken effect, and some have been shot down in the courts as environmental groups, states, and activists have challenged the federal government's rollbacks of environmental protections. But the administration remains dogged in its deregulatory agenda, so expect more attempts to relax rules that protect the health of the youngest Americans.

Bloomberg BNA: Children's Health Chief Put on Leave, Says EPA Seeks to 'Cause Chaos'

By Pat Rizzuto and Sylvia Carignan

The EPA's children health official who was placed on administrative leave Sept. 25 told colleagues that her removal wasn't for disciplinary reasons, according to a personal email from Ruth Etzel obtained by Bloomberg Environment.

"It looks to me like it is intended to cause chaos in the Office of Children's Health Protection," Etzel, who had been that agency's director, said in the email.

Etzel, a pediatrician, joined the agency in 2015. Her office, which is part of the administrator's office, works to ensure EPA's actions and programs address children's vulnerabilities.

She said in the email she was required to turn in her EPA badge, computer, keys, and cellphone.

The agency doesn't comment on personnel matters, Donna Vizian, principal deputy assistant administrator for the EPA's Administration of Resources Management, told Bloomberg Environment in an email.

But John Konkus, a spokesman for the agency, emphasized that children's health is important.

"Children's health is and has always been a top priority for the Trump administration and the EPA in particular is focused on reducing lead exposure in schools, providing funds for a cleaner school bus fleet, and cleaning up toxic sites so that children have safe environments to learn and play," Konkus told Bloomberg Environment in an email.

'Guerrilla Warfare'

Etzel said in the email that her removal comes before Children's Health Month begins in October and a Children's Health Protection Advisory Committee meeting is scheduled for Oct. 11 and 12.

"It had been apparent for about 5 months that the top EPA leaders were conducting 'guerrilla warfare' against me as the leader of OCHP, but now it's clearly official," Etzel said in the email.

The EPA hadn't notified the advisory committee as of Sept. 26 regarding Etzel's removal, the reasons, or whether any other actions are pending related to the children's office, Barbara Morrissey, who chairs that advisory committee, told Bloomberg Environment.

Morrissey and several other officials in the children's health community condemned the EPA's move.

"This action removes her from EPA deliberations in finalizing the long awaited federal strategy to reduce lead exposure and lead impacts among our nation's children," said Morrissey, a toxicologist with the Washington State Department of Health.

It also weakens the ability of the children's office to protect children in the agency's regulations, health research, and outreach, she said by email.

'Dismantle' Office?

The EPA's decision is "the opening gambit in a plan by this administration to dismantle EPA's Office of Children's Health Protection," Philip J. Landrigan, a pediatrician focused on environmental health and a professor at Boston College, told Bloomberg Environment.

Federal employees can't be fired for policy differences, only for clear "disciplinary" violations such as mismanaging funds, Bob Sonawane, a former risk assessor at EPA, told Bloomberg Environment.

Because Etzel said this was not a disciplinary action, there is no apparent explanation, but the effect will be to disrupt the office's work, said Sonawane, who now works with Toxicology and Risk Assessment Consulting Services LLC.

Betsy Southerland, a former senior scientist in the EPA's Office of Water, also told Bloomberg Environment that the move risks diminishing the importance of children's health.

"The Children's Office was very effective in ensuring that children's health effects were explicitly considered in every agency action," said Southerland, who now works with the Environmental Protection Network, a group of former EPA staffers who are concerned about efforts to undermine clean air, water, land and climate protection. "Putting the director on leave means that office will have much less influence on agency actions and much less ability to raise controversies to the administrator."

Etzel is a pediatrician and specialist in preventive medicine and public health. She is the founding editor of the popular book "Pediatric Environmental Health" and the co-editor of the "Textbook of Children's Environmental Health."

—With assistance from Fatima Hussein.

Buzzfeed News: The EPA Just Put A Top Official On Leave. She Says They're Trying To "Disappear" A Children's Health Program.

By Nidhi Subbaraman and Zahra Hirji

A top EPA official just put on administrative leave said the Trump administration was trying to "disappear" her office dedicated to children's health, according to an email obtained by BuzzFeed News.

Ruth Etzel, the director of the Office of Children's Health Protection and an internationally renowned expert who cowrote the field's "bible," was placed on administrative leave Tuesday, the New York Times first reported.

"I appear to be the 'fall guy' for their plan to 'disappear' the office of children's health," Etzel wrote Tuesday to the leader of a nonprofit, in an email shared widely among academics and advocates.

Etzel wrote that the EPA told her the decision to place her on leave was not a disciplinary action, and that it ended several months of conflict.

"It had been apparent for about 5 months that the top EPA leaders were conducting 'guerrilla warfare' against me as the leader of OCHP, but now it's clearly official," Etzel wrote. Etzel did not respond to requests for comment from BuzzFeed News.

The EPA declined to comment on Etzel's email or the specifics of her leave. But a spokesperson contested the notion that the agency's children's health programs would be nixed.

"Children's health is and has always been a top priority for the Trump Administration and the EPA in particular is focused on reducing lead exposure in schools, providing funds for a cleaner school bus fleet, and cleaning up toxic sites so that children have safe environments to learn and play," John Konkus, an EPA spokesperson, told BuzzFeed News by email.

Konkus added that the Children's Office, along with others like Environmental Justice and Civil Rights, "will continue to be a part of headquarters and regional organizations."

This is just the latest controversy at Trump's EPA, which has rolled back several environmental regulations, overhauled its advisory panels, and taken down climate information on its website. These changes and more have led to low morale at the agency, and spurred hundreds of career staff to retire or leave. Trump's first EPA chief, Scott Pruitt, left the agency in July amid a series of ethics problems, and now the agency is led by acting head Andrew Wheeler, a former coal lobbyist.

Former EPA officials and other public health experts are worried about what happened to Etzel. Elizabeth "Betsy" Southerland, the former top official in EPA's water office, said she has never heard of an office director being put on leave like this, and she's worried this is the EPA's first step toward suspending or firing Etzel.

"I think it's horrible," Southerland told BuzzFeed News. "This is stunning. I've never seen it done at this level."

Experts outside of the government are concerned about the fate of the Children's Health Office if Etzel does lose the job.

"It leads me to the belief that EPA does not value this office," Tracey Woodruff, a professor at the University of California at San Francisco, told BuzzFeed News. "I would say that the administration has already demonstrated that they are undermining the use of science in decision-making and this would be consistent with that."

Children are uniquely vulnerable to harm from environmental factors, Laura Anderko, a professor at Georgetown University School of Nursing and Health Studies, told BuzzFeed News.

"Children are not little adults — they drink more water, breath more air, eat more food," Anderko said. During growth spurts, smaller levels of toxins can do greater damage. Also, infant behaviors — crawling, touching things, and putting their hands in their mouth — ups their exposure to environmental harms.

The OCHP was established after a 1997 executive order signed by then-president Bill Clinton cited growing scientific evidence that children "suffer disproportionately from environmental health risks and safety risks," and instructed federal agencies to assess such exposures and figure out how to minimize them.

Among its roles, the OCHP publishes the "America's Children and the Environment" reports, which pool research and national survey data on such things as illness rates, body contaminants (like blood lead levels), and environmental pollutants as they affect children, mothers, and mothers-to-be.

Without the OCHP, public health experts worry that there will be less advocacy for a group that is already underserved. As an example, Anderko pointed out, "When we calculate safety levels of chemicals, we're using adult men. Unless there are researchers at the Office of Children's Health Protection at the table, children won't be protected adequately."

"My fear is that they will dissolve the office," Anderko said. "The writing is really on the wall."

CNN: EPA makes changes at research, child health offices

By Gregory Wallace and Rene Marsh

(CNN)Back-to-back moves at the Environmental Protection Agency have employees and some outside observers concerned that science is again being sidelined by the Trump administration.

EPA officials gathered employees from the research office on Wednesday to announce the agency would soon combine the Office of the Science Advisor with the agency's research arm, according to an employee who attended the meeting. An EPA spokesman confirmed the meeting took place and said the move would "reduce redundancies."

The previous afternoon, EPA's director of children's health emailed her professional circle with a message several people who had seen it found shocking. Ruth Etzel said that without warning, she had been placed on administrative leave, a decision she wrote in an email obtained by CNN was intended to undermine her office's work. The office's responsibilities include working with other EPA offices to make sure children are taken into account when regulations are written.

The agency's second-ranking official defended the decision in a separate email, also obtained by CNN, and said the administration "remains fully committed to protecting children's health."

"I would like to clear up any misunderstandings regarding EPA's ongoing commitment to the protection of children's health," the acting deputy administrator, Henry Darwin, wrote in a separate email on Thursday to members of the agency's Children's Health Protection Advisory Committee. "Dr. Etzel was not placed on leave to diminish EPA's Children's Health Program. ... EPA is seeking a strong leader to move the program forward."

Etzel, however, described being pushed out of her position after months of "guerilla warfare," describing in her message how she "was required to turn in my EPA badge, computer, keys, and cell phone" and is "not allowed to perform any official EPA duties."

"I appear to be the 'fall guy' for their plan to 'disappear' the office of children's health," Etzel wrote. "They said clearly that this is not a disciplinary action -- so it looks to me like it is intended to cause chaos in the Office of Children's Health Protection."

She is a career agency employee, rather than a political appointee, who previously worked as a pediatrician and was described by people who know her as a vocal and influential advocate within the agency for childrens' health. Her office was involved in crafting the agency's most important regulations, and its objections taken seriously, according to her professional acquaintances who spoke with CNN.

Tracey Woodruff, a professor at the University of California San Francisco, said the colleagues she speaks with "really valued having Ruth in that job," and are now "concerned about what does this mean for children's health at EPA."

"I never heard of putting an office level director -- a senior executive -- on administrative leave," said Betsy Southerland, a former senior EPA official herself who resigned in protest of the Trump administration's approach to science.

EPA spokesman John Konkus said the work of the "specialty focused offices including the children's health, environmental justice, civil rights, and small business offices" will continue.

The agency's decision to fold the science advisor office into the Office of Research and Development also concerned EPA employees, according to an EPA staffer who attended the meeting, and pro-science groups. An EPA official confirmed the meeting took place and said the two offices perform "similar functions."

Trump's coal emissions rollbacks will be bad for country's health, experts say

"The fact of the matter is that the Senate confirmed Assistant Administrator for ORD has customarily served as the EPA Science Advisor which will continue to be the case," said Jennifer Orme-Zavaleta, using the acronym for the research office. Orme-Zavaleta is the current acting as the science advisor.

Michael Halpern with the Union of Concerned Scientists, which has opposed other Trump administration moves, said combining the offices would bury a once-influential position "deep inside one specific part of EPA."

In past administrations, the science advisor has been an influential voice to "ensure that EPA is using the best available science in policies, guidance, regulations, and basically, all decisions," said Kyla Bennett of Public Employees for Environmental Responsibility. She said the decision will ensure "that science is once again demoted and marginalized."

Michael Mikulka, president of a union representing more than 900 EPA employees, said the two moves are among several intended to "kill career civil servants' input and scientific perspectives on rule making."

EE News: Children's health director abruptly put on leave

Kevin Bogardus and Ariel Wittenberg, E&E News reporters

EPA has put the director of its children's health protection office on administrative leave.

Ruth Etzel, a career employee who joined the agency in 2015, was put on leave yesterday, sources told E&E News. The agency declined to provide details about the decision, and it's unclear whether or when she'll return.

The abrupt move has alarmed some agency employees and children's health experts.

Caroline Cox, a member of EPA's Children's Health Protection Advisory Committee, called it "very concerning" that Etzel has been put on leave. Cox, a senior scientist at the California-based nonprofit Center for Environmental Health, told E&E News today that the panel's chairwoman notified her and other members of the advisory committee via email yesterday of Etzel's status.

"She is a person with just an amazing reputation and some stellar credentials in the field of pediatrics," Cox said. The loss is "huge," she added.

Etzel is a senior EPA official with a career of more than 30 years as a pediatrician and a public health expert, according to EPA. Her office works on protecting children from environmental dangers through EPA rulemaking, policy and enforcement.

Etzel is listed among the key staff for the EPA administrator's office, according to the agency's website.

EPA's move to sideline Etzel came after children's health experts heard rumors her office might be eliminated.

"A week or two ago, some of us heard that there was a reorg chart that EPA had circulated to its regional offices that seemed to be leaving out the Office of Children's Health Protection, and no one was quite sure what that meant," said Maureen Swanson, the co-leader of Project TENDR, a children's health advocacy group whose acronym stands for "targeting environmental neuro-development risks" (E&E News PM, Sept. 6).

"So there were indications that EPA was going to move to eliminate the Office of Children's Protection over the last couple weeks," said Swanson, who also leads the Healthy Children Project at the Learning Disabilities Association of America (Greenwire, Oct. 31, 2017). "But I think the people within that office were the last to know."

Barbara Morrissey, chairwoman of the Children's Health Protection Advisory Committee, told E&E News this morning that she had heard about EPA's action from another panel member and had so far gotten no direct notification from the agency.

Calling Etzel "a real champion for kids," Morrissey, a toxicologist with the Washington State Department of Health, also voiced alarm at how Etzel was removed from her post, adding that she understood it was not for disciplinary reasons.

"I think it lacked common decency and respect that she was not even allowed to say goodbye to her office."

The New York Times was first to report that Etzel had been placed on leave. The Times reported that Etzel was asked to hand over her badge, keys and cellphone, citing an agency official who spoke on background.

EPA isn't disclosing details about the decision.

"We do not comment on personnel matters," Donna Vizian, the principal deputy assistant administrator for EPA's Office of Administration and Resources Management, said in a statement.

In addition to leading the Office of Children's Protective Health, Etzel has co-chaired the senior staff steering committee of the President's Task Force on Environmental Health Risks and Safety Risks to Children.

The multiagency task force has been working on a federal strategy to combat childhood lead exposure. The strategy has been in development for over a year, but progress stalled over the summer.

Task force members were not given advance notice of Etzel's status.

EPA spokesman John Konkus said children's health will remain a priority for the agency under the Trump administration.

"Headquarters has a number of specialty-focused offices including the children's health, environmental justice, civil rights and small business offices, and these offices will continue to be a part of headquarters and regional organizations," Konkus said.

"Children's health is and has always been a top priority for the Trump administration, and the EPA in particular is focused on reducing lead exposure in schools, providing funds for a cleaner school bus fleet, and cleaning up toxic sites so that children have safe environments to learn and play."

Reporters Sean Reilly and Corbin Hiar contributed.

EcoWatch: EPA Shakeup Risks Sidelining Science, Environmentalists Say

By Olivia Rosane

The U.S. Environmental Protection Agency (EPA) is reshuffling its science offices, the agency confirmed to The Hill Thursday, in a move that environmental advocates and career staffers fear will minimize the impact of science on policy.

The shifts are occurring within the EPA's Office of Research and Development (ORD), and involve combining the Office of Science Policy and the Office of the Science Advisor into a single Office of Science Integration and Policy.

The move is a defacto demotion for the agency's top scientist, who will now report to the Deputy Assistant Administrator for Science instead of directly to EPA Administrator Andrew Wheeler, The New York Times reported.

The change was announced to the ORD staff on Wednesday, The Hill reported, a day after the EPA placed Office of Children's Health Protection leader Dr. Ruth Etzel on unexplained administrative leave.

"Clearly, this is an attempt to silence voices whether it's in the agency's Office of Children's Health or the Office of the Science Advisor to kill career civil servants' input and scientific perspectives on rule-making," Michael Mikulka, who leads a union representing around 900 EPA staffers, told The New York Times.

Current Science Advisor Dr. Jennifer Orme-Zavaleta said in a statement emailed to The New York Times that the changes were an attempt to "combine offices with similar functions" and "eliminate redundancies."

The shakeup will also include reorganizing administrative ORD activities under an Office of Resource Management, The Hill reported.

Further, the National Center for Environmental Research (NCER), which tests the impacts of chemicals on adults and children, will disband and "relevant functions" will be divided between the two new offices.

Deputy Director of the Center for Science and Democracy with the Union of Concerned Scientists Michael Halpern said the shake-up was bad news for science at the agency.

"Everything from research on chemicals and health, to peer-review testing to data analysis would inevitably suffer," he told The New York Times.

The EPA under the Trump administration has previously been criticized for sidelining science.

Former EPA administrator Scott Pruitt announced plans before he resigned to restrict the types of studies the EPA could use to make decisions, limiting the agency to studies whose results were publicly available.

The current demotion of the science advisor position comes as Pruitt's acting replacement, former coal lobbyist Wheeler. Is leading a reorganizational effort at the agency, The New York Times reported.

Halpern warned The Hill that there was precedent at Trump's EPA for diminishing the role of important offices.

"We've seen what happens when an office gets de-prioritized, they become less visible. The office of environmental justice, which is a shell of what it was before, the Office of Children Health Protection would be equally vulnerable. It's the more cross cutting programs that tend to be the most vulnerable to politicization," he told The Hill.

The EPA told The Hill that full time staff would not be reduced as part of the changes.

Politico: Permanent Conservation?

By BEN LEFEBVRE 09/27/2018 10:00 AM EDT Updated 09/27/2018 10:19 AM EDT
With help from Annie Snider and Matt Daily

ON A PERMANENT CONSERVATION: House Natural Resources Chairman Rob Bishop (R-Utah), he of the compromise extending the Land and Water Conservation Fund, has a warning for his friends in the Senate - don't try to make this spending mandatory. Bishop is a key player in trying to complete a reauthorization of the fund, which takes part of the money raised through oil and gas sales on federal land and then spends it on conservation projects. But making spending from the fund mandatory — as envisioned in a bipartisan Senate bill — would "probably blow it up in the House," he tells Pro's Anthony Adragna.

Listen all y'all: Bishop's stance could add significant additional hurdles to the fund's reauthorization. LWCF supporters prefer mandatory funding for the program because they say Congress chronically shortchanges it — creating a growing backlog of projects — and because the appropriations cycle has been so unpredictable, Anthony writes. A group of dedicated Senate LWCF backers led by Sen. Richard Burr (R-N.C.) say they won't let up in their quest to get the program reauthorized. "I believe we will ultimately win this fight because our colleagues know this is the right thing to do," Burr said on the Senate floor. "We're going to be relentless." The Senate Energy and Natural Resources Committee is scheduled to mark up an LWCF reauthorization bill next Tuesday.

GOOD MORNING! I'm your host, Ben Lefebvre, this Thursday morning as Kelsey Tamborrino takes a well-deserved vacation in London. Christi Tezak at ClearView Energy Partners was the first to correctly chime in that the Ogallala Aquifer flows under South Dakota, Nebraska, Wyoming, Colorado, Kansas, Oklahoma, New Mexico and Texas. Today's question: What is the active oil and gas production site due north of Hilo, Hawaii? Don't forget to send your tips, energy gossip and comments to blefebvre@politico.com, asnider@politico.com and ddixon@politico.com. And remember to follow us on Twitter @Morning_Energy and @POLITICOPro.

President Donald Trump says a red wave is coming on election day. Is he right or will the tide turn blue? Compete against the nation's top political minds in the POLITICO Playbook Election Challenge, by correctly picking the winning candidates in some of the most competitive House, Senate and gubernatorial races in the country! Win awesome prizes and eternal bragging rights. Sign up today! Visit politico.com/playbookelectionchallenge to play.

WHERE'S ZINKE? Interior Secretary Ryan Zinke is in Asheville, N.C., to announce the results of the latest opioid task force operation.

CHILDREN'S HEALTH OFFICE ON THE ROPES? The ousted head of EPA's Office of Children's Health Protection wrote in an email to the leader of a nonprofit obtained by BuzzFeed News that "I appear to be the 'fall guy' for their plan to 'disappear' the office of children's health." Ruth Etzel, a pediatrician and epidemiologist, was put on administrative leave late Tuesday, for reasons she said in the email were not disciplinary. "It had been apparent for about 5 months that the top EPA leaders were conducting

'guerrilla warfare' against me as the leader of OCHP, but now it's clearly official," Etzel wrote, according to BuzzFeed.

An EPA reorganization chart recently shared with regional offices eliminated regional children's health coordinator positions – a move that some public health advocates saw as an opening gambit in a bid to shut down the office. The office, which was created under the Clinton administration, and has the right to formally weigh in on all of the major regulatory actions taken by the agency, including Trump administration rollbacks that EPA's experts estimate will harm human health.

The agency declined to comment on personnel matters, but spokesman John Konkus said in a statement that "EPA Headquarters has a number of specialty focused offices including the children's health, environmental justice, civil rights, and small business offices and these offices will continue to be a part of headquarters and regional organizations."

Real world example: Less than 24 hours after Etzel's removal, a top federal toxicologist told senators that research has found children to have higher levels of exposure to perfluorinated compounds, the nonstick chemicals tainting water supplies across the country, than their parents. EPA, which is in the process of developing an action plan for dealing with the chemicals, has been criticized by public health advocates for not lowering its safety threshold as new research has indicated the compounds can pose dangers at even lower levels.

SAY YES TO MICHIGAN: EPA's PFAS tour wasn't over after all, an agency official told lawmakers Wednesday. Peter Grevatt, the Water Office official leading EPA's work on the nonstick chemicals told a Senate Government Affairs subpanel that the agency will head to Michigan next week for stakeholder meetings. Communities across the Wolverine state have been learning of alarming levels of PFAS compounds in their water supplies in recent months as the state undertakes a proactive testing program.

Republican Michigan Gov. Rick Snyder, who has just a little experience with drinking water crises, was the first governor to back former EPA Administrator Scott Pruitt's efforts on the class of nonstick compounds, and EPA officials said they always intended to visit his state. But earlier this month EPA announced it was wrapping up its summer series of community engagement events without a visit to Michigan. That provoked an outcry from Michigan lawmakers, Reps. Fred Upton (R), Debbie Dingell (D) and Tim Walberg (R), who extracted a promise from Grevatt during a hearing earlier this month to visit the state.

SPR IN THE SPOTLIGHT: Global markets are still jumpy as they try to figure out exactly how to replace Iran's shipments of 2 million barrels per day that are disappearing because of the President Donald Trump's decision to re-impose sanctions on Tehran. Those worries, plus the Federal Reserve's rate decision that kept the U.S. dollar fairly steady, could mean oil prices will be strong for the coming weeks and that's got the industry looking over its shoulder at the possibility that Trump could tap into oil in the Strategic Petroleum Reserve to push prices lower.

Driving prices: DOE Secretary Rick Perry told reporters such a release isn't in the cards, for now at least, according to media reports. That didn't exactly calm the waters — his comments lifted oil prices by 50 cents/bbl. There's also plenty of time to change his mind. Republicans could have to deal with higher

gasoline prices going into the November midterms even as the administration tries to talk up its energy production policy.

Boppin' on OPEC: Trump, who has ramped up his criticism of OPEC after the cartel declined to raise its output, could release as much as 500,000 barrels per day from the SPR, though market experts say the price impact would be limited, and might simply widen the spread between U.S. and Brent prices. "It won't drop oil from $80 to $65, and any effect would be short-term," Hess Corp. President Greg Hill told Bloomberg News this week.

** A message from National Clean Energy Week, A Clean Energy Future, Together: National Clean Energy Week is taking place across the nation September 24-28, 2018. Learn more about how clean energy addresses America's economic and energy needs in the 21st century. **

UTAH BROUHAHA? Green groups are not giving up on opposing what would be the first oil shale mining project in the U.S. The Bureau of Land Management on Wednesday approved Enefit American Oil's request to build water pipelines and other infrastructure over public roads to complete its oil mining project in west Utah, which would produce 50,000 barrels of oil per day via digging up shale rock, heating it and treating it to remove petroleum. The company advertises the process as stable and efficient, but environmentalists argue it's more akin to strip mining and is extremely water intensive. "We're taking a very close look at this," the Center for Biological Diversity's Michael Saul told ME. "This project in particular is a terrible idea. We're evaluating our options."

LIGHTS STILL ON AT VOGTLE: Southern Co.'s Georgia Power will cover a higher share of future cost overruns at the Vogtle nuclear project in Georgia under a deal set today that will keep the lights on at the trouble project, according to a SEC filing issued Wednesday. The agreement that kept alive the $28 billion two-reactor project also removes a requirement that the three biggest partners — Southern Co., Oglethorpe Power and the Municipal Electric Authority of Georgia — vote to continue the project in the event of future cost overruns, Pro's Darius Dixon reports.

Why would they do that? Maybe because such a requirement prompted this week's negotiations, which had threatened to derail the project, Darius reports. The four owners can now continue construction of two reactors despite a multibillion-dollar cost overrun.

LIVE, IN D.C.: Karen Evans, the recently confirmed DOE Assistant Secretary of Cybersecurity, Energy Security, and Emergency Response, will make her debut before the House Energy and Commerce Committee this morning. The hearing will focus on DOE's cybersecurity and energy security modernization efforts. "With energy systems now massively digitized and interconnected, new threats and vulnerabilities have emerged," Committee Chairman Greg Walden (R-Ore.) will say according to his prepared remarks. "It's a whole of government effort, but DOE, in particular, must be vigilant and prepared when it comes to ensuring energy access and delivery through cyber threats, physical threats, and emergency situations." If you go, the hearing will start at 10:15 a.m. at 2322 Rayburn House Office Building. .

SKI AND GREET: Five-time snowboarding Olympian Kelly Clark, plus other athletes and ski resort executives, will attend a reception on the Hill today with Reps. Ann McLane Kuster (D-N.H.) and Mike

Coffman (R-Colo.) to discuss climate change and its impact on the winter recreation biz. Those interested can halfpipe on over to 340 Cannon House Office Building starting at 5:30 p.m.

QUICK HITS:

"Oil eases, but Iran sanctions keep Brent above $80 a barrel," Reuters.

"U.S. Makes Shortlist for Saudi Nuclear-Plant Deal," WSJ.

"Trump's corn-state pledge puts Wheeler in a jam" E&E.

THAT'S ALL FOR ME! Annie Snider will be your ME host Friday.

** A message from National Clean Energy Week, A Clean Energy Future, Together: National Clean Energy Week is taking place across the nation September 24-28, 2018. Learn more about how clean energy addresses America's economic and energy needs in the 21st century. **

Trump Administration Deals Major Blow To Children's Health Programs

By Farron Cousins - September 27, 2018

The Trump administration is trying to make it crystal clear that they don't care one bit about the health of children in the United States. The EPA, under acting director Andrew Wheeler, has put the head of the department's Office of Children's Health Protection on administrative leave without any explanation, meaning that the department that overseas children's health is without a leader and without direction. Ring of Fire's Farron Cousins explains what this could do to the program.

f you have children or if you are thinking about having children during the Trump Administration, there's one thing you need to understand, and that is, Donald Trump and his entire administration do not give a damn about the health of your child.

Now, we've seen that with policies that basically began as soon as this administration was sworn in, but just this week, children's health was dealt yet another blown by the Trump Administration. Andrew Wheeler, the acting director of the Environmental Protection Agency, the guy who replaced Scott Pruitt, also happens to be a former coal lobbyist, we found out that he has suspended, indefinitely, placed her on administrative leave, the director of the Office of Children's Health Protection.

The woman who is in charge at the EPA of making sure that our children are healthy and safe from toxic chemicals from corporations. Just put her on administrative leave, didn't give a reason, just said, "Alright, you can go home and don't come back for quite a while, until I tell you to."

The woman is Dr. Ruth Etzel, she is an award-winning pediatrician who spent her entire adult life treating children, working on children's health issues, and they've basically just said, "Your services are not needed at the moment. We're no firing you, but we certainly don't want you working on keeping American Children safe."

Speaking with current EPA staffers and members of the EPA, news outlets are reporting that this is part of a broader plan by the Trump Administration because they wanna get rid of that office altogether, the Office of Children's Health Protection. They don't want it to exist. They don't want an office dedicated to the protection of children's health!

We really are dealing with a level of cartoon villainy that we have never seen from within the federal government itself. There is no justification whatsoever as to why we need to get rid of this office. This isn't something that could be more effectively run by a different group. It is something that squarely falls within the authority of the Environmental Protection Agency. There is no reason to cripple it by sending the director on administrative leave and then attempting to dismantle the entire organization.

The only reason you would do that is because you want corporations to be able to get away with anything. When they dump their toxins in our rivers and our aquifers, when they spew them out into the air, they don't want anybody testing those to see if, hey, maybe this is going to ruin children's brains. Maybe this is going to give them more asthma attacks.

And I bring up those two issues because this administration has already repealed rules from the Obama Administration that they have admitted are going to really screw up children here in the United States.

We’re looking at well-over 100,000 additional asthma attacks in youth, thanks to their repealing of rules about what can be spewed into the air from corporations.

And we’re also looking at more fetal brain damage from their decision to not ban the pesticide known as Chlorpyrifos. Now, a judge has actually said they have to ban Chlorpyrifos. They have, I think, until the first week and a half of October to put the ban in place, but that didn’t stop it from actually being sprayed throughout the time when they issues the non-ban until the first week and a half of October.

And yes, that has 100% been linked to fetal brain damage. But that’s okay with this administration. They don’t care. They don’t care if your child is born with brain damage. They don’t care if all the pollution in the air gives your kids asthma, a condition they have to live with now for the rest of their life. They don’t care. All they care about is making sure that corporations, the corporations who destroy our plant but give a ton of money to Republicans, they just wanna make sure that they stay happy so that that money keeps flowing.

Message

From: Google Alerts [googlealerts-noreply@google.com]
Sent: 9/26/2018 7:03:31 PM
To: Konkus, John [konkus.john@epa.gov]
Subject: Google Alert - scott pruitt

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scott pruitt

Daily update - September 26, 2018

NEWS

Pruitt's Short Tenure Could Leave Lasting Impact on the EPA

waste360

Though **Scott Pruitt** resigned from the U.S. Environmental Protection Agency (EPA) after less than two years on the job, he set a precedent that could ...

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Wheeler pushing same bad plans as Pruitt

The Missoulian

After scandal-plagued U.S. Environmental Protection Agency Administrator **Scott Pruitt** resigned earlier this year, it seems a lot of his bad ideas stuck ...

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Trump Admin. Seeks Reversal of Court Order to Ban Pesticide That Harms Kids' Brains

Environmental Working Group

The Ninth Circuit's ruling nullified the decision last year by then-EPA Administrator **Scott Pruitt** to cancel a proposed ban on chlorpyrifos, which the ...

EPA appeals reinstatement of ban on pesticide - Press Herald

Department of Justice requests rehearing of case following order to ban common agricultural ... - Yakima Herald-Republic

Full Coverage

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Vehicle fuel efficiency

Ventura County Star

Environmental Protection Agency Administrator **Scott Pruitt** says states should be barred from setting their own fuel-efficiency and emissions standards ...

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EPA Places the Head of Its Office of Children's Health on Leave

New York Times

Under Mr. Wheeler and his predecessor, **Scott Pruitt**, who left the position earlier this year amid investigations into his oversight of the agency, the ...

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Acting EPA administrator Wheeler to speak at 2018 Shale Insight conference

Tribune-Review

Wheeler, formerly the EPA deputy administrator, took office as acting administrator in July, following the resignation of **Scott Pruitt**. He must still be ...

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Cruz Ambush Protest Planners: 'We Have Eyes and Ears Everywhere'

Washingtonian

... officials—including Homeland Security Secretary Kirstjen Nielsen and then-EPA chief **Scott Pruitt**—being hounded on camera while doing otherwise ...

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EPA's Top Children's Health Dr. Shown the Door – Will Program be Axed?

Environmental Working Group

Many of the decisions by former EPA head **Scott Pruitt** and acting chief Andrew Wheeler have blatantly favored the interests of chemical companies ...

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No Power Restaurant Is Safe From Political Protests Now

Washingtonian

Already, we're seeing examples, such as teacher Kristin Mink urging EPA chief **Scott Pruitt** to resign while he lunched at Teaism. "They have the ...

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California Officials Call on Trump to Drop Rollback of Fuel Standards

KQED

Earlier this year, former EPA Administrator **Scott Pruitt** called fuel efficiency rules established by the Obama administration, "too high." Federal officials ...

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Message

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CC: Sylvester, Kenneth [Sylvester.Kenneth@epa.gov]; Polk, Denise [Polk.Denise@epa.gov]; Binder, Bruce [Binder.Bruce@epa.gov]
Subject: children's health
Attachments: Childrens Health Related Active Grants ONLY as of 9.19.2018.xlsx

John, please see the attached document that contains a list of active grants that appear to meet your request for grants that may relate to children's health issues or include children's health activities. Some of the grants included on this list may include general references to "humans", "youth", "infants", etc in the title or project description or both that could possibly be linked to children's health so they are included on the list to be more inclusive. It is possible that there are other active grants that relate to children's health that may not be on the list because key words related to children's health may not have been included in the project title or description.

If you need further information pertaining to the grants on the attached list, OGD encourages you to contact the programmatic personnel involved in managing these grants directly. To assist you in these communications, OGD has also provided the EPA "Project Officer" and the "AAShip" as separate columns in the document. Although there is a primary office within OA, the Office of Children's Health Protection (OCHP), that handles children's health issues, the grants identified in the attached list are programmatically managed by a wide variety of program offices and NPMs. Any grants managed by OCHP are denoted in the list as Program Code: "CH".

OGD has also included below a list of CFDA (Catalog of Federal Domestic Assistance) entries that cover programs that may issue grants that have children's health related components or activities. The ones on this list relate to CFDAs that pertain to the active grants identified in the grant chart that is attached to the email. We have also put an asterisk to denote those CFDAs where children's health issues are actually mentioned in the content of the CFDA, usually in the objectives section.

Thanks and let us know if you need further information.

Potential CFDA's that fund projects relating to Children's Health Activities				
CURRENT/ESTABLISHED PROGRAMS			PROPOSED PROGRAMS IN DEVELOPMENT	
CFDA No.	CFDA Title		CFDA No.	CFDA Title
* 66.110	Healthy Communities Grant Program		TBD	Lead Testing in Schools and Child Care program (Office of Water)
* 66.609	Protection of Children from Environmental Health Risks			
* 66.701	Toxic Substances Compliance Monitoring Cooperative Agreements			
* 66.707	TSCA Title IV State Lead Grants Certification of Lead-Based Professionals			
* 66.818	Brownfields Assessment and Cleanup Cooperative Agreements			
66.032	State Indoor Radon Grants			

66.034	Surveys, Studies, Research, Investigations, Demonstrations, and Special Purpose Activities Relating to the Clean Air Act	[redacted]		
66.040	State Clean Diesel Grant Program	[redacted]		
66.204	Multipurpose Grants to States and Tribes	[redacted]		
66.475	Gulf of Mexico Program	[redacted]		
66.481	Lake Champlain Basin Program	[redacted]		
66.509	Science To Achieve Results (STAR) Research Program	[redacted]		
66.511	Office of Research and Development Consolidated Research/Training/Fellowships	[redacted]		
66.516	P3 Award: National Student Design Competition for Sustainability	[redacted]		
66.604	Environmental Justice Small Grant Program	[redacted]		
66.700	Consolidated Pesticide Enforcement Cooperative Agreements	[redacted]		
66.716	Consolidated Pesticide Enforcement Cooperative Agreements	[redacted]		
66.802	Superfund State, Political Subdivision, and Indian Tribe Site-Specific Cooperative Agreements	[redacted]		
66.926	Indian Environmental General Assistance Program (GAP)	[redacted]		
66.951	Environmental Education Grants	[redacted]		

Bruce S. Binder
United States Environmental Protection Agency
Office of Grants and Debarment
Senior Associate Director for Grants Competition
202-564-4935
Ex. 6

Grant Family	Program Code	CFDA Code	Awarding Region Code	AAship	Grants Specialist	Project Officer	Project Title	Project Description	Award Date	Project Start Date	Project End Date
00A00024	HC	66.110	EPA R1	R01	BRIAN TOCCI	EUGENE BENOIT	Healthy Home Peer Education	The Way Home, Inc. ?Healthy Home Peer Education? project will benefit residents in Manchester, NH by the creation of new self-help tools to understand indoor environment and public health risks and ensure landlords complete needed repairs to reduce risks to children and families. This project will provide high risk households with in-home assessments, education, and support services. The goal of the project is to reduce residents? exposure to hazards, empower low-income renters with skills to identify/address healthy home issues, and build alliances for motivating landlords to improve housing conditions.	8/10/2017	10/1/2016	9/30/2018
00A00230	HC	66.110	EPA R1	R01	JULIE ROSS	MYRA SCHWARTZ	Reducing Toxics Use Among Sensitive Populations	The project will educate staff of institutions that serve sensitive populations, i.e children and seniors, through trainings about the safe use and disposal of toxic commercial cleaning products and art supplies with the additional goal of replacing them with non-toxic products.	3/21/2018	10/2/2017	10/2/2018
00A00267	K	66.701	EPA R1	R01	BRIAN TOCCI	AMANDA BRYLSKI	Office of Enforcement and Compliance Assurance (OECA) Fiscal Year 2019 Lead Enforcement Grant	This agreement supports New Hampshire's program to protect public health from exposure to lead-based paint hazards by overseeing lead-based paint abatement certification courses as well as lead-based paint abatement activities in pre-1978 child-occupied housing. Specifically, the recipient will conduct audits of accredited lead abatement training courses and Toxic Substances Control Act (TSCA) 402/404 compliance inspections. The recipient will also endeavor to return out of compliance firms and individuals into compliance with the Act.	8/23/2018	10/1/2018	9/30/2019
00A00276	HC	66.110	EPA R1	R01	BRIAN TOCCI	MYRA SCHWARTZ	Toxic Free: Easy as 1-2-3	The ?Toxic Free: Easy as 1-2-3? project seeks to provide education to parents and caregivers about the risk that household hazardous products pose to children and ways to reduce the chances of exposures and poisonings. This project will also encourage residents to properly dispose of household hazardous waste (HHW) at designated collection events across the Nashua, NH region.	9/12/2018	10/1/2018	9/30/2020
00A00367	HC	66.110	EPA R1	R01	KATONYA BEST	KAYLA KING	Lead-Safe Housing Initiative	In accordance with the Toxic Substances Control Act, Section 10, the Childhood Lead Action Project?s ?Lead-Safe Housing Initiative? aims to reduce the incidence of childhood lead poisoning in Providence, RI by expanding access to lead-safe rental housing, broadening awareness of the legal protections and resources for parents, and promoting lead-safe work practices for those providing home renovation and repair services .	9/6/2017	10/1/2017	9/30/2018
00A00399	HC	66.110	EPA R1	R01	KATONYA BEST	KAYLA KING	Lead-Safe Neighborhoods Program	The Childhood Lead Action Program Project "Lead- Safe Neighborhood's Program" project will take place in Providence, Rhode Island. Project activities include: 1) Proving workshops for local tenants to educate them on their rights to safe housing, lead poisoning prevention, and resource information. 2) Hosting committee meetings/quarterly meetings with city personnel, hosting Landlord/and Homeowner Lead Mitigation Seminars to help put homeowners/hombuyers/landlords on the path to lead compliance .3) Hosting trainings for renovation and repair specialists to train them on the Renovation, Repair and Painting Rule (RRP Rule) and lead safe work practices.	9/12/2018	10/1/2018	9/30/2019
00A00439	HC	66.110	EPA R1	R01	MONIQUE LLOYD	EUGENE BENOIT	Improving Home Air Quality	Per your application request dated June 1, 2017, this Cooperative Agreement awards Federal Funding in the amount of $25,000 to the Town of Stratford, Connecticut for your project entitled Improving Home Air Quality for Asthmatic Children in Stratford and Bridgeport, CT. Tis project will help improve respiratory health outcomes of low income children with a history of uncontrolled asthma by intensifying asthma reduction interventions to identify and mitigate indoor air triggers in their homes as well as by improving indoor home environments through more intensive family and community efforts.	8/28/2017	10/1/2017	9/30/2019
00A00455	K	66.701	EPA R1	R01	MONIQUE LLOYD	AMANDA BRYLSKI	MA DLS OECA FY19-FY20 Lead Enforcement Grant	Per your application request dated May 4, 2018, this Cooperative Agreement is being awarded partial funding in the amount of $23,000 to the Massachusetts Department of Labor Standards. These funds will assist with programs to protect public health from exposure to lead-based paint hazards by overseeing lead-based paint abatement and Renovate, Repair and Painting (RRP) certification courses as well as lead-based paint abatement and RRP activities in pre-1978 child-occupied housing. Specifically, the recipient will conduct audits of accredited lead abatement and RRP training courses and lead abatement and RRP compliance inspections. The recipient will also endeavor to return out of compliance firms and individuals into compliance with the Act.	9/12/2018	10/1/2018	9/30/2020
00E02296	BF	66.818	EPA R5	R05	ROBERT FIELDS	GEORGE STONE	BROWNFIELDS ASSESSMENT AND CLEANUP COOPERATIVE AGREEMENT	This Cooperative Agreement between the United States Environmental Protection Agency and City of Danville will utilize funds to perform a Community-Wide Assessment. The City of Danville will evaluate previously inventoried sites for potential Hazardous Substances and/or Petroleum contamination. In addition, focus on target area sites within the East Main Street and East Fairchild Corridors. The goal of the cooperative agreement is to understand the nature of contamination at Brownfield Sites throughout the City municipalities and facilitate their cleanup and redevelopment.	9/28/2017	10/1/2017	9/30/2020
01F36701	PB	66.707	EPA R6	R06	DEBBIE DORSEY	DOUGLAS CORNELL	New Mexico Department of Health Lead Paint FY17	The goals of the "System Approach for Breathing Easy at Home and School in Las Cruces, Dona Ana, New Mexico" (SABES) project include: (1) Increase knowledge among parents, childcare providers, health professionals, and others to protect children from environmental hazards; (2) Support parents, community members and local organizations in becoming leaders in addressing children's environmental health risks; and (3) Develop or strengthen partnerships with other organizations and/or agencies to address children's environmental health risks.	6/18/2018	7/1/2017	12/31/2018
01F41101	CH	66.609	EPA R6	R06	DANNELL BROWN	STEPHANIE CHEANEY	Improving Childrens Environmental Health	This project will enable Texas A&M University System enhance their ability to take actions that will reduce environmental risks to the health of children. The project will focuses on Head Start Centers, Independent School District, and Women, Infants, and Children (WIC), and Community Health Workers through the implementation of an integrated approach providing Indoor Air Quality, Integrated Pest Management, Lead Education, and an Environmental Exposures for Pregnant Women Curriculum.	1/16/2018	1/1/2018	12/31/2018
01F41201	CH	66.609	EPA R6	R06	DANNELL BROWN	STEPHANIE CHEANEY	Enhancing Environmental Health of Children on the Border	This project will enable Texas Tech University Health Services Center to enhance their ability to reduce environmental risks to the health of children. Texas Tech University Health Sciences Center El Paso (TTUHSC EP) and the University of Texas Rio Grande Valley School of Medicine (UTRGV) will provide cooperative Pediatric Environmental Health (PEH) elective programs for medical students and nursing students. In addition to live presentations, the new elective will employ live and recorded webinars, online learning modules and other self-teaching modalities amd also to develop educational materials which can be made available to other colleges and universities.	1/16/2018	10/1/2017	9/30/2019
01J30801	PB	66.707	EPA R10	R10	MARK ROMELLI	KIM FARNHAM	Administration of the lead based paint accreditation and certification programs	Washington State requests funding under section 404(g) of the Toxic Substances Control Act to administer a certification, accreditation, compliance and enforcement program for lead-based paint activities, renovation and pre-renovation work. The program's goal is to eliminate childhood lead poisoning by ensuring and enforcing compliance with the lead environmental laws and regulations. Washington State is authorized to run the Lead Abatement, Renovation, Repair and Painting and the Pre-Renovation Education Programs. Funding supports the Washington State Authorized Lead Programs.	8/10/2017	10/1/2017	9/30/2018
01J31301	PB	66.707	EPA R10	R10	MARK ROMELLI	KIM FARNHAM	Oregon Lead-based Paint Program FY 2018	Oregon State requests funding support under 404g of Toxic Substances Control Act for the administration of a state certification, accreditation, compliance and enforcement program for persons engaged in lead-based paint activities, renovation and pre-renovation work. Oregon's Lead Program eliminates childhood lead poisoning by ensuring and enforcing compliance with lead environmental laws and regulations. Oregon is authorized to run the Lead Abatement, Renovation, Repair and Painting and the Pre-Renovation Education Programs. Funding supports the Oregon State Authorized Lead Programs.	8/23/2017	10/1/2017	9/30/2018
01J45001	PB	66.707	EPA R10	R10	MARK ROMELLI	KIM FARNHAM	Oregon Health Authority FY19 Lead Program	Oregon State requests funding support under 404g of TSCA for the administration of a state certification, accreditation, compliance and enforcement program for persons engaged in lead-based paint activities, renovation and pre-renovation work. The goal of Oregon's Lead Program is to eliminate childhood lead poisoning in Oregon by ensuring and enforcing compliance with the lead environmental laws and regulations. Oregon State has been authorized to run the Lead Abatement, Renovation, Repair and Painting and the Pre-Renovation Education Programs. This funding supports the Oregon State authorized Lead Programs.	9/14/2018	10/1/2018	9/30/2019
01J45301	PB	66.707	EPA R10	R10	MARK ROMELLI	KIM FARNHAM	WA Dept of Commerce FY19 Lead Program	Washington State requests funding support under 404g of TSCA for the administration of a state certification, accreditation, compliance and enforcement program for persons engaged in lead-based paint activities, renovation and pre-renovation work. The goal of Washington's Lead Program is to eliminate childhood lead poisoning in Washington by ensuring and enforcing compliance with the lead environmental laws and regulations. Washington State has been authorized to run the Lead Abatement, Renovation, Repair and Painting and the Pre-Renovation Education Programs. This funding supports the Washington State authorized Lead Programs	9/14/2018	10/1/2018	9/30/2019
96355701	CH	66.609	EPA R3	R03	LORRAINE FLEURY	PRENTISS WARD	Eco-Healthy Child Care	The recipient will educate childcare professionals about how to provide environmentally healthy and safer settings and services for the well-being of children and staff and help childcare facilities implement low-to no-cost changes in their practices and purchasing. The program's core content areas are pesticides, lead, mercury, arsenic in treated wood and water, radon, mold and mildew, poor indoor air quality, and harmful chemicals in consumer products including cleaners, plastics furniture and carpets, art supplies, recycling and garbage storage.	9/27/2017	9/1/2017	3/30/2019
96837301	BF	66.818	EPA R8	R08	PAUL FELZ	THEODORE LANZANO	Standing Rock Sioux Tribe -Sitting Bull College	This assistance agreement will provide funding to Standing Rock Sioux Tribe to clean extensive asbestos and lead-based paint at the former Sitting Bull College. The removal of the hazardous buidling materails will help faciliate the redevelopment as office space for the Child Protection Services and Child Support Enforcement Agency. This project will provide much needed clean office space so the organizations can provide their vital services.	8/26/2016	10/1/2016	9/30/2019
98177808	K	66.701	EPA R1	R01	MARY-ELLEN STANIS	AMANDA BRYLSKI	CT DPH OECA FY19-FY20 Lead Enforcement Grant	This agreement supports Connecticut's program to protect public health from exposure to lead-based paint hazards by overseeing lead-based paint abatement certification courses as well as lead-based paint abatement activities in pre-1978 child-occupied housing. Specifically, the recipient will conduct audits of accredited lead abatement training courses and Toxic Substances Control Act (TSCA) 402/404 compliance inspections. The recipient will also endeavor to return out of compliance firms and individuals into compliance with the Act.	9/14/2018	10/1/2018	9/30/2020
98709715	PB	66.707	EPA R7	R07	RACHEL WALTERS	CRYSTAL MCINTYRE	Nebraska FY18 Lead Paint Certification/Enforcement Program	Funds are used to implement a comprehensive lead-based paint program to reduce the risk of childhood lead poisoning.	9/27/2017	10/1/2017	9/30/2018
98709716	PB	66.707	EPA R7	R07	RACHEL WALTERS	CRYSTAL MCINTYRE	Lead-Based Paint Certification/Accreditation Program and Enforcement Program	Implementation of a comprehensive lead-based paint program to reduce the risk of childhood lead poisoning.	8/15/2018	10/1/2018	9/30/2019
98750712	PB	66.707	EPA R7	R07	MARC KINGSTON	CASSANDRA MANCE	Kansas Lead-Based Paint Grant Agreement 2017-2018	Implementation of a comprehensive lead-based paint program to reduce the risk of childhood lead poisoning. Supplemental funding provided to train accredited providers; increase regulated community awareness; and, technical enhancements to an online application system.	9/26/2017	10/1/2017	9/30/2018
98750713	PB	66.707	EPA R7	R07	MARC KINGSTON	CASSANDRA MANCE	Kansas Lead-Based Paint Grant Agreement 2018-2019	Implementation of a comprehensive lead-based paint program to reduce the risk of childhood lead poisoning. This amendment provides supplemental funding of $59,349.	9/14/2018	10/1/2018	9/30/2019
99318914	PB	66.707	EPA R3	R03	ROBERTA ROBINSON	KYLE CHELIUS	Lead Safe Virginia's mission is to eliminate lead as a health hazard for VA children.	The purpose of this cooperative agreement is to assist Virginia in its ongoing efforts to: administer its lead program through certification and accreditation of lead-based paint professionals; monitor lead-based paint activities through inspections and notification procedures; issue enforcement actions to ensure compliance with requirements and to deter further violations; provide compliance assistance to the regulated community; provide education and lead regulations and lead issues to the public; perform outreach activities on various lead-based paint issues and regulatory requirements.	9/13/2017	10/1/2013	9/30/2018
99705221	PB	66.707	EPA R7	R07	JENNIFER ERICKSON	CRYSTAL MCINTYRE	Iowa 2018 Lead Training and Certification Program	This program assists the state with implementation of a comprehensive lead-based paint program to reduce the risk of childhood lead poisoning.	9/22/2017	10/1/2017	9/30/2018
99705222	PB	66.707	EPA R7	R07	JENNIFER ERICKSON	CRYSTAL MCINTYRE	Iowa 2018 Lead Training and Certification Program	Implementation of a comprehensive lead-based paint program to reduce the risk of childhood lead poisoning.	9/14/2018	10/1/2018	9/30/2019
99720420	PB	66.707	EPA R7	R07	CHRISTINE SCHMALTZ	CASSANDRA MANCE	Missouri 2018-2020 Lead Licensing and Accreditation Program	Funds will be used for the 2018 comprehensive lead-based paint program to reduce the risk of childhood lead poisoning.	7/13/2018	10/1/2017	9/30/2020
99T70601	CH	66.609	EPA R9	R09	VERONICA ADAMS	JESSICA HELGESEN	Children's Health Initiative - Healthy Homes and Healthy Childcare Programs for Nogales, Arizona	The purpose of this grant is for Sonora Environmental Research Institute, Inc (SERI) to train promotoras (community health workers) in Nogales, Arizona on Healthy Homes concepts and inspections, who will then educate parents/caregivers and child care providers to reduce toxic exposures to children through community workshops and home/site visits. SERI will conduct pre-and post-tests completed by training/workshop participants and follow-up visits and phone calls with those whose home or childcare facility received an inspection. Lastly, they will work with medical providers to bring awareness of the need for blood testing for lead in vulnerable populations. This assistance agreement provides full federal funding in the amount of $39,500. Pre-award costs have been approved back to 12/1/17.	12/27/2017	12/1/2017	11/30/2018
99T70801	CH	66.609	EPA R9	R09	DARLENE FERNANDEZ	SCOTT STOLLMAN	Childrens Health Initiative- Proyecto Hogar Seguro	The Mariposa Community Health Center will train community health workers to educate parents/caregivers and child care providers to reduce toxic exposures to children. The project will develop a training curriculum, train community health workers to educate parents/caregivers and child care providers, and share results so other border communities benefit. This award provides federal funding in the amount of $45,000. Preaward costs have been approved back to 12/1/17	12/19/2017	12/1/2017	11/30/2018
00A00474	HC	66.110	EPA R1	R01	JULIE ROSS	CHRISTINE BELING	Providence County Food Recovery Initiative	The Center for EcoTechnology's "Providence County Food Recovery Initiative" will increase food recovery and reduce the quantity of wasted food entering the municipal solid waste stream by working with stakeholders including K?12 public and private schools, event venues, healthcare facilities, colleges/universities, hospitality facilities, and food rescue and donation organizations to benefit Rhode Island residents. The project will provide education, outreach, training and technical assistance to organizations in Providence County, including the municipalities of Cranston, Providence and Pawtucket. The project will reduce food waste and loss in Providence County and work with wasted food generators to divert edible food to food rescue organizations and true food waste to composting. This project's work to divert wasted food from the municipal solid waste stream will help increase the community?s resiliency by making nutritious food accessible to food insecure populations including children and sensitive populations in Rhode Island while supporting the state's organic landfill disposal ban.	8/16/2018	10/1/2017	9/30/2019
00A00132	NE	66.951	EPA R1	R01	KATONYA BEST	KRISTEN CONROY	Building Capacity for Urban EE & Stewardship Providence	Groundwork Providence (GWP) is offering environmental educational programming to school children and neighborhood residents in environmental justice neighborhoods. The three GWP sites are redeveloped brownfield sites, and/or former vacant, abandoned and underutilized lots that have been transformed into community assets, and all within walking distance to many schools and community centers. Using outdoor place-based, experiential, service learning as the primary learning tool, GWP is making a visible difference in Providence by providing guidelines for save and environmentally-friendly practices in waste management and water quality, trees and climate change, urban agriculture, and non-chemical pest control. Rhode Island Environmental Education Association (RIEEA) members are subgrantees and providing the educational programming which is aligned with national standards to promote best practices among formal and informal educators. It is anticipated that 300 students and an additional 50 residents participate in this project	5/29/2018	9/1/2016	12/31/2018

00A00374	EQ	66.604	EPA R1	R01	KATONYA BEST	KAYLA KING	Lead-Safe Blackstone Valley	The Lead-Safe Blackstone Valley initiative will work in three of Rhode Island's high risk communities to reduce the incidence of childhood lead poisoning, improve the safety of rental housing, and increase the capacity of Central Falls, Pawtucket, and Woonsocket residents to address lead issues. Project activities include promoting effective lead prevention practices, developing Lead 101 and worker safety trainings, and providing training and technical assistance. These cities have a very high incidence of lead poisoning and are home to substantial low-income/minority populations.	9/19/2017	10/1/2017	9/30/2018
00D52117	MX	66.475	EPA R4	R04	MARGARET CROWE	AMY NEWBOLD	Gulf of Mexico Program	This action approves an award in the amount of $22,162 to Mobile County Master Gardener Association for the restoration of pollinator habitat in coastal Alabama. The project will also provide educational materials and programs to educate the public and school children about the benefits of pollinators.	7/18/2018	10/1/2017	9/30/2019
00D56117	XA	66.034	EPA R4	R04	SHERRY MILES	KRISTINE JOHNSON	Training and Technical Assistance Progam to Advance Evidence-based In-Home Asthma Interventions	This action approves a partial award in the amount of $24,000 to the State of North Carolina toward the development of a statewide network of public health professionals, community health workers, and allied health personnel to provide evidence based in-home asthma interventions in North Carolina. The proposed project targets children at high risk for exposure to indoor asthma triggers and contaminants and provides education to families and educators on these triggers as well as practical strategies for reducing them.	9/6/2017	6/1/2017	5/31/2019
00E02283	EQ	66.604	EPA R5	R05	KIMBERLY HOUSTON	DANIEL SAMARDZICH	Community Health Outreach	The aim of this project is to address high rates of lead exposure among children in the Near Northwest Neighborhood of South Bend. By partnering with the local health department, the organization will provide lead education and screening opportunities to 75 percent of families in the neighborhood with children under the age of 7. Outreach and education will be conducted through a variety of efforts including going door-to-door, holding public meetings, and engaging with local schools and churches. In December 2016, it was reported that 31.3% of children in this Census tract tested over the blood level of 5 micrograms per deciliter. In addition, over 48% of the residents in NNN live below the poverty line.	9/27/2017	9/25/2017	9/30/2018
00E02284	EQ	66.604	EPA R5	R05	ROBERT YOUNG	DANIEL SAMARDZICH	Addressing Housing Concerns	This project seeks to reduce the high rates of lead exposure among children in Lansing. Annually, two in three children who test for high blood-lead levels are refugees and live in rental properties in the city. RDC will develop print, web, and video materials to educate refugee families on home lead hazards. Materials will be available in six refugee languages to reach a variety of populations. At least 50 refugee residents will pilot/test film, booklets, and web materials to be used subsequently in educational home visits.	9/25/2017	9/21/2017	9/21/2018
01F22701	XA	66.034	EPA R6	R06	LISA KAPSH	MARK BERRY	Positve Breathing/Asthma Education Program	To educate children diagnosed with asthma and their families about asthma symptoms, triggers and how important it is to keep their home asthma friendly with a focus on sustaining change that will improve their asthma health.	9/9/2016	10/1/2016	9/30/2018
01F23201	V	66.802	EPA R6	R06	BELENTHIA CHOYCE-EPPS	KATHRYN GIBSON	Tar Creek Blood Lead Testing	The project provides funding the Oklahoma Department of Environmental Quality (ODEQ) to conduct blood lead testing in children within the Tar Creek Superfund Site area. The objective is to reduce lead exposure and meet the remedial action objectives and effectively implement the statutory requirements of CERCLA 121(f) by remediating contaminated soils that are found to pose hazards to human health and mandates substantial and meaningful State involvement.	3/1/2018	10/1/2016	10/4/2020
01J47201	GA	66.926	EPA R10	R10	JOANNE BRENDLE	MICHELLE DAVIS	Prince of Wales Tribal Stewardship Consortia - GAP	The Prince of Wales Tribal Stewardship Consortia will build environmental capacity to address issues related to solid waste, children's environmental health and tribal fish consumption rates.	8/14/2018	10/1/2018	9/30/2020
01J51801	NE	66.951	EPA R10	R10	MARK ROMELLI	SALLY HANFT	Engaging the Community in the Palouse Prairie Region Restoration	This project will work on restoration of a native ecosystem, raise public awareness through hands-on participation in prairie restoration and promote environmental literacy and conservation stewardship. The applicant will recruit, build, and develop a team of over 300 community collaborators invested in local prairie restoration; solve problems related to a restoration through planting and cultivating 2,000 native plants; educate the participants, children and adults of all ages and nationalities, on restoring native prairie ecosystems that were formerly used for agriculture; and have the participants share what they have learned with the community.	9/13/2018	9/1/2018	10/1/2019
83543201	RD	66.509	EPA HQ	ORD	JENNIFER BROOKS	CYNTHIA NOLT-HELMS	Center for Children?s Environmental Health (CCEH)	The principal concern of the UC Davis Center for Children's Environmental Health and Disease Prevention (CCEH) is to identify and understand environmental, immunologic, and genetic risk factors contributing to the incidence and severity of childhood autism. The mission of the CCEH is to better understand the immunological and neurobiological mechanisms within the context of environmental exposures and genetic susceptibility associated with Autism Spectrum Disorder (ASD).	6/7/2018	6/1/2013	5/31/2019
83543301	RD	66.509	EPA HQ	ORD	JENNIFER BROOKS	CYNTHIA NOLT-HELMS	UCSF Pregnancy Exposure to Environmental Chemicals	This Center will investigate of how environmental chemicals affect the seminal early stages of human in utero development, which could manifest as adverse effects on children's health. The Center will test the hypothesis that the mechanisms include damage to the placenta - which governs in utero programming, birth weight and consequently, childhood health - and that these effects are exacerbated by social stress.	6/7/2018	6/1/2013	5/31/2019
83543401	RD	66.509	EPA HQ	ORD	HAZELETTA BURGESS	CYNTHIA NOLT-HELMS	Novel Methods to Assess Effects on Child Development	The primary goal is to use a multidisciplinary approach to address critical gaps in our knowledge about the impact of exposure to endocrine-disrupting chemicals (EDCs) on child development. The researchers will investigate how endocrine disrupters (phthalates and bisphenol A [BPA]) interact with diets high in saturated fat to impact neurological and reproductive function.	6/7/2018	6/1/2013	5/31/2019
83543501	RD	66.509	EPA HQ	ORD	JENNIFER BROOKS	CYNTHIA NOLT-HELMS	UC Berkeley/Stanford Children's Environment Health Research Center	The goal of this center is to understand possible links between exposures to air pollutants, socioeconomic and other factors and adverse birth outcomes, regulatory T-cell function and allergic disorders, body weight and fat composition. The overarching hypothesis is that inhalational exposure to air pollutants induces oxidative stress which in turn leads to systemic inflammatiion.	6/18/2018	7/1/2013	6/30/2019
83543701	RD	66.509	EPA HQ	ORD	SUZANNE HERSH	CYNTHIA NOLT-HELMS	(FDP) Neurodevelopment/Improving Children's Health	The proposed Center will conduct research to explain how environmental tobacco smoke exposure increases the risk of Attention-Deficit / Hyperactivity Disorder (ADHD) through epigenetic alterations. The Center will share its findings to inform the public about the risks of environmental tobacco smoke exposure on the health of pregnant women, children, and potentially future generations.	7/10/2018	6/1/2013	5/31/2019
83544101	RD	66.509	EPA HQ	ORD	JENNIFER BROOKS	CYNTHIA NOLT-HELMS	Southern California Children Environmental Health Center	The goal of this Center is to address whether prenatal and childhood exposure to near-roadway air pollution (NRAP) contributes to childhood obesity, metabolic and inflammatory abnormalities that increase the risk of type-2 diabetes and cardiovascular disease.	6/18/2018	7/1/2013	6/30/2019
83544201	RD	66.509	EPA HQ	ORD	ROBIN HOLDER	CYNTHIA NOLT-HELMS	Center Children's Environmental Health & Disease Prevention Dartmouth	The main goal of this Center is to fill critical knowledge gaps in the role of arsenic (As) in drinking water and food to child growth, development and immune response. Project 1 builds on a cohort study of pregnant women using private wells with elevated arsenic levels and their children will be evaluated for occurrence of infections, allergies/atopy and vaccine response. Project 2 investigates the contribution of drinking water and diet to early childhood As exposure. Project 3 examines epigenetic/gene expression changes in the placenta from As exposure and children's health outcomes.	7/11/2018	7/1/2013	6/30/2019
83615201	RD	66.509	EPA HQ	ORD	ALISON HANLON	CYNTHIA NOLT-HELMS	Obesity- Susceptibility to Pollutants and Asthma	Asthma and obesity are public health crises that have risen concurrently over the past three decades, affecting millions of children and disproportionately affecting urban low-income minority children. Preliminary findings indicate that obese children with asthma have increased susceptibility to air pollutants. Research from the Johns Hopkins Children?s Center will investigate additional levels of evidence to establish causality. Results from this study can inform clinical practice guidelines and health care policies aimed at reducing asthma morbidity in inner city children.	6/28/2018	9/1/2015	8/31/2019
83615301	RD	66.509	EPA HQ	ORD	SUZANNE HERSH	CYNTHIA NOLT-HELMS	Center for Children's Health and the Microbiome	The Center for Children?s Health, the Environment, Microbiome and Metabolomics is an interdisciplinary collaboration that aims to examine the complex interplay between exposure to environmental toxicants, the microbiome, and fetal/infant health in a community of women in metropolitan Atlanta.	6/20/2018	9/1/2015	8/31/2019
83615401	RD	66.509	EPA HQ	ORD	ROBIN HOLDER	CYNTHIA NOLT-HELMS	Columbia Center Children's Environmental Heath	Adolescent cognitive, emotional, behavioral, and adiposity (CEBA) problems are highly prevalent and costly and represent a major public health problem. Polycyclic aromatic hydrocarbons (PAH) are ubiquitous in the urban environment, generated by combustion of fossil fuel and other organic material; they are carcinogenic, neurotoxic and obesogenic. This Columbia Children?s Center will investigate the contribution of PAH to CEBA outcomes from birth through adolescence to inform policy and other interventions to protect children during these vulnerable life stages.	6/29/2018	9/1/2015	8/31/2019
83615501	RD	66.509	EPA HQ	ORD	SHANA ETHERIDGE	CYNTHIA NOLT-HELMS	Early Childhood Exposure and Development	The Center for Research on Early Childhood Exposure and Development in Puerto Rico (CRECE) aims to provide valuable new information on the impacts of multi-chemical environmental exposures on fetal and early childhood health and development, as well as the factors that may modify those impacts. Results from this study will inform future clinical intervention, risk assessment and policy-setting efforts, with direct relevance to both the underserved population of Puerto Rico, as well as the U.S. general population.	6/20/2018	9/1/2015	8/31/2019
83615801	RD	66.509	EPA HQ	ORD	JENNIFER BROOKS	MAGALIE BREVILLE	Maternal and Developmental Risks from Environmental and Social Stressors (MADRES)	This research will examine whether environmental exposures (including air pollution, metals, water contaminants, and toxic releases), coupled with exposures to psychosocial and built environment stressors, lead to excessive gestational weight gain and postpartum weight retention in minority and low-income women and to perturbed infant growth trajectories and increased childhood obesity risk through altered psychological, behavioral and/or metabolic responses.	7/11/2018	7/1/2015	6/30/2020
83615901	RD	66.509	EPA HQ	ORD	JENNIFER BROOKS	CYNTHIA NOLT-HELMS	Childhood Leukemia and the Environment	The goal of the Center for Integrative Research on Childhood Leukemia and the Environment (CIRCLE) is to identify the causes of childhood leukemia so preventive measures can be employed by health practitioners, families, and public health providers and organizations. Researchers will use state-of-the-art methods to measure in utero chemical exposures that are potential risk factors for childhood leukemia and characterize the biological mechanisms by which these chemicals may act on the fetus to increase the risk of leukemia in human and animal studies.	6/28/2018	9/1/2015	8/31/2019
83679501	SU	66.516	EPA HQ	ORD	THUY NGUYEN	TERRY KEATING	Shock-Resistant Biogas Digester for Cookstove Fuel	The student team will design an improved residential-scale biodigester for the production of methane gas from food waste. The system will provide enough methane for four hours of cooking per day and will be installed at the Children?s Cross Connection Home orphanage in Wolaita, Ethiopia under Aerie Africa (NGO) oversight and funding.	11/3/2017	11/1/2016	10/31/2018
83924901	CR	66.511	EPA HQ	ORD	HAZELETTA BURGESS	INTAEK HAHN	Oil & Gas Activity & Drinking water vulnerability	This project will formulate a model that predicts the spatiotemporal variability in groundwater vulnerability to unconventional oil and gas-extraction associated chemicals. The resultant vulnerability index model will more accurately estimate susceptibility to contaminants in drinking water. The study will culminate with a case-control study of infants to determine whether exposure to unconventional oil and gas contaminants, as estimated by the vulnerability index model, is associated with adverse birth outcomes (low birthweight, preterm birth, birth defects).	8/30/2018	9/1/2017	8/31/2020
83927801	RD	66.509	EPA HQ	ORD	THUY NGUYEN	INTAEK HAHN	Wisconsin Study of Children's Health, Ecological Exposures, and Social Environment	This research studies the influence of social and physical factors (residential conditions, personal lifestyles/genetics, socioeconomic behaviors, public interactions) and total chemical pollutant exposures on children?s health and development. The research provides exposure models reflecting the chemical, social and physical environments that influence health outcomes from the prenatal period to age four and estimates the causal effect of these total environment exposures on child health.	12/5/2017	1/1/2018	12/31/2020
83927901	RD	66.509	EPA HQ	ORD	ROBIN HOLDER	INTAEK HAHN	Water Infrastructure to Improve Childhood Health and Decrease Childhood Lead Exposure	This research studies the importance of peri-urban/rural environmental factors (availability of water service, housing conditions, socioeconomic status, behaviors, and water infrastructure) on lead exposures and children?s health. Research will estimate how potential lead in well waters affects children?s developmental outcomes, and the association between lead in private well water and children?s blood lead. Researchers will use state healthcare, education and water infrastructure data.	12/13/2017	1/1/2018	12/31/2020
83928801	SU	66.516	EPA HQ	ORD	SUZANNE HERSH	ANGELA PAGE	Novel Septic System Design to Prevent Failure	Septic system failure can lead to health issues within children and other vulnerable populations as the water comes into contact with ground and surface water. This project aims to innovate current conventional septic systems to make them safer and less prone to failure. This project will result in cleaner onsite wastewater treament for American homes, particularly those in rural communities.	1/10/2018	2/1/2018	1/31/2019
83937601	CR	66.511	EPA HQ	ORD	THUY NGUYEN	MICHAEL HISCOCK	Development of a Community-Based Lead Risk and Mitigation Model	The objective of this research is to further the science of risk assessment and mitigation for lead exposure, and to translate this into practices that limit or even eliminate lead exposure for drinking water consumers, especially vulnerable populations such as children and pregnant women. This work is applicable not only to sensitive members of the general public, but also small and large communities across the U.S. with different water sources and varying water quality.	7/5/2018	5/1/2018	4/30/2021
96274200	AA	66.204	EPA R2	R02	MICHELE JUNKER	MARLON GONZALES	Multi-Purpose Grant Program--NYSDEC	This agreement provides assistance to the New York State Department of Environmental Conservation to acquire equipment to support the following: ultra fine particulate study; Inspection and Maintenance program enforcement; community air screening; improve Methane/Hydrogen Sulfide monitoring; and, acquisition of air monitoring calibration equipment. In addition, there will be a climate change outreach for children.	9/28/2016	10/1/2016	12/31/2018
96350401	XA	66.034	EPA R3	R03	DONNA ARMSTRONG	JANICE BOLDEN	American Lung Association Asthma Management Care Education Continuation Grant	The American Lung Association will educate children using Open Air Ways for Schools program at a local elementary school, along with educating staff/families for asthma friendly child centers, and family/adults on asthma management care (environmental trigger identification and remediation).	7/31/2018	10/1/2017	9/30/2019
96857001	EQ	66.604	EPA R8	R08	RYAN KLOBERDANZ	JEAN BELILLE	The UPHE Lead Safe Outreach Program: Creating a Safe Environment for Children	UPHE?s Lead Safe Outreach Program aims to create a safe environment for children by educating the community and schools about the sources and health risk of lead poisoning, informing them about local programs for abatement, providing information to the Lead Education and Screening Coalition, and sharing information from this coalition back to the community.	9/22/2017	10/1/2017	9/30/2018
97737001	V	66.802	EPA R7	R07	CHRISTINE SCHMALTZ	WHITNEY RAWLS	Jasper County Superfund Remedial Response	Missouri Department of Health and Senior Services will continue to oversee lead case identification and case management for children between 6-72 months of age residing in Jasper County. Funding will provide health education to residents about the hazards associated with mine waste, ways to reduce exposure to lead, and ways to reduce blood lead levels in children.	7/20/2018	9/8/2012	9/7/2019
97756801	AA	66.204	EPA R7	R07	CHRISTINE SCHMALTZ	STEVEN BROWN	Missouri Multipurpose Radon Grant	The Healthy Indoor Environments Program will engage in activities to mitigate radon in schools to reduce radon exposure among children in Missouri.	6/2/2017	10/1/2016	9/30/2018
97757601	V	66.802	EPA R7	R07	CHRISTINE SCHMALTZ	WHITNEY RAWLS	Madison County Superfund Health Education	Funding provided by this cooperative agreement will enable the Missouri Department of Health and Senior Services to continue participation in providing health education to residents regarding the hazards associated with mine waste, the ways to reduce exposure to lead, ways to reduce blood-lead levels in children. Madison County Health Department will assist in obtaining access for initial soil sampling and properties that qualify for remediation. This is a partial award of Federal funds. Full funding will be provided at a later date.	9/15/2017	10/1/2016	9/30/2019
97760801	V	66.802	EPA R7	R07	RACHEL WALTERS	WHITNEY RAWLS	Douglas County Childhood Lead Poisoning Prevention Program	Funds support blood lead screening and interior lead dust reduction programs. This award provides a partial amount of federal funds, further funding may be provided at a later date.	9/29/2017	10/1/2017	9/30/2020
98463717	E	66.700	EPA R4	R04	MARGARET CROWE	KRISTINE JOHNSON	Consolidated Pesticide Compliance Monitoring	This action provides partial funding in the amount of $31,167 to Clemson University which supports the University's ongoing comprehensive Regulatory program to protect groundwater and endangered species and promote voluntary compliance with established worker protection standards. Specifically, the grant will fund "collection days" that promote recycling of used pesticides containers to reduce the potential for pesticide residues to enter the environment, and inspections of schools to improve compliance with Integrated Pest Management practices and reduce the risk of children being exposed to pesticides.	8/9/2018	1/1/2017	12/31/2019
83597001	X8	66.716	EPA HQ	OCSPP	ROBIN HOLDER	ANA RIVERA-LUPIANEZ	National Farmworker Training Program	The Association of Farmworker Opportunity Programs (AFOP) project supports Farmworker Pesticide Safety Training. The project will support a national network of over 150 pesticide safety trainers in more than 30 states to provide pesticide worker safety training to migrant and seasonal farmworkers and their families.	6/27/2018	10/1/2015	9/30/2020
83616301	X8	66.716	EPA HQ	OCSPP	JENNIFER BROOKS	JEANNE KASAI	Pesticide Education Resources Collaborative	The recipient will develop and/or manage the development of "pesticide safety materials and resources" (materials) for the safe use of pesticides. Materials can include but are not limited to: study materials, online training, training aids, exam questions. All materials will be used by EPA's partners and stakeholders to protect humans, the environment and communities from illness and injury related to pesticide exposure.	7/23/2018	1/1/2016	12/31/2020
99T12001	DS	66.040	EPA R9	R09	ALBA ESPITIA	ASIA YEARY	State Clean Diesel Grant Program	The purpose of this program is to reduce emissions by retrofitting school buses with Air Resources Board (ARB)-verified Level 3 diesel emission control strategies, and to replace school buses with newer, cleaner school buses, thereby reducing school children's exposure to cancer-causing pollution. In addition, funds may be allocated to replace or to repower existing on-road heavy-duty vehicles with cleaner engines, or to install ARB-verified exhaust retrofits on the same category.	1/22/2018	10/1/2014	9/30/2018

99T38101	V	66.802	EPA R9	R09	DARLENE FERNANDEZ	JUDY HUANG	Support Agency Cooperative Agreement - Palos Verdes Shelf	Los Angeles County Department of Public Health Toxics and Epidemiology Program (LACDPH Toxics) will provide public outreach and education on the Palos Verdes Shelf Superfund Site (PV Shelf Site) to LA County doctors, public health nurses, and environmental health inspectors. LACDPH Toxics also collaborates through other county programs including Maternal and Child Health, Comprehensive Perinatal Services Program, Child Health and Disability Prevention, and Nutrition, to further the fish contamination education message and efforts to reduce risks and exposure to the public from site contamination. LACDPH-Toxics also serves as a fish contamination information clearing house for the LA County, they provide support for developing or updating outreach materials and provide primary support to EPA in LA County for maintenance and monitoring of an extensive Pier Sign (fish advisory) program.	8/24/2018	10/1/2015	12/31/2020
99T53001	NE	66.951	EPA R9	R09	MARIA ROVERSO	ERIC CANTEENWALA	Environmental Eduction - Our Living Watershed: Conservation Education Program for Students/Families	This agreement provides federal funding in the amount of $90,000 to provide environmental education to children in grades 3, 4 and 5 at four underserved elementary schools in Escondido, California through field trips, family weekend stewardship events, professional development for teachers, advanced education trainings for docents and teacher guides. The Our Living Watershed program will be conducted in partnership with Central Elementary School, Felicita Elementary School, San Diego Gas & Electric, State of California Coastal Conservancy, and California Coastal Commission. The three overarching goals of the project are to instill a life-long conservation ethic among grade school youth to connect them with nature, develop the EE skills of the San Elijo Lagoon Conservancy?s volunteer docents and partnering teachers, and to protect the Escondido Creek watershed. Preaward approved back to 9/1/2016.	9/26/2016	9/1/2016	10/31/2018
99T70401	XA	66.034	EPA R9	R09	ELIZABETH ARMOUR	MARIELA LOPEZ	CAA Special Purpose Activities - Breathmobile	The grantee will locate children in counties with high asthma rates via a mobile asthma clinic to increase access to health care to reduce asthma disparities in low income children by thoroughly evaluating, treating and educating patients and families about asthma, asthma triggers and other environmental factors affecting them. This agreement provides full federal funding in the amount of $8,000.	11/30/2017	12/1/2017	11/30/2018
99T71001	XA	66.034	EPA R9	R09	ELIZABETH ARMOUR	MARIELA LOPEZ	CAA Special Purpose Activities - Imperial Valley Child Asthma Program	The program provides in-home asthma and environmental asthma trigger management education to at least 50-70 families of asthmatic children that have a high and moderate risk score for medical care environmental, smoking, child well-being and and/or allergy factors on the Child Asthma Risk Assessment Tool (CARAT) results. The educational component will also provide educational materials that will aid the family in maintaing an asthma friendly home environment. This agreement provides full federal funding in the amount of $17,000. Preaward costs are approved back to 12/1/2017.	12/21/2017	12/1/2017	11/30/2018
00A00134	LC	66.481	EPA R1	R01	KATONYA BEST	BRYAN DORE	Lake Champlain Basin Program-Section 120 Grant	This award will help the New England Interstate Water Pollution Control Commission's (NEIWPCC's) Lake Champlain Basin Program (LCBP) staff to accomplish the following goals: 1) coordinate the continued exchange of State, Federal and local perspectives and concerns on LCBP programs and activities; 2) advise the Steering Committee, States of Vermont and New York, and the Environmental Protection Agency of progress toward achieving objectives of LCBP's Work Plans and other activities; 3) reduce phosphorus inputs to Lake Champlain to promote a healthy and diverse ecosystem and provide for sustainable human use and enjoyment of the Lake; 4) reduce toxic contamination to protect public health and the Lake Champlain ecosystem; 5) promote a basin-wide perspective on water quality issues of regional and national importance; 6) coordinate efforts of water pollution control experts to assist in evaluating the spread of invasive species in the lake and to develop an appropriate management plan to minimize their impact; 7) minimize the risks to humans from water-related health hazards in the Lake Champlain Basin; 8) protect, conserve and restore Lake Champlain basin wetlands, streams and riparian habitats and the functions and values they provide; 9) inform citizens of activities and progress related to program implementation and towards achieving water quality goals. This award will be assisting research, surveys, studies, and modeling and technical and supporting work necessary for the development and implementation of the Lake Champlain Management Plan.	10/18/2017	10/1/2016	9/30/2019
00A00377	LC	66.481	EPA R1	R01	KATONYA BEST	BRYAN DORE	FY17 NEIWPCC Lake Champlain Basin Program	This funding is authorized by Section 120 of the Clean Water Act to implement a program for the public's benefit. The award will help the New England Interstate Water Pollution Control Commission's (NEIWPCC's) Lake Champlain Basin Program (LCBP) staff to accomplish the following goals: 1) coordinate the continued exchange of state, federal and local perspectives and concerns on LCBP programs and activities; 2) advise the Steering Committee, States of Vermont and New York, and the Environmental Protection Agency of progress toward achieving objectives of LCBP's work plans and other activities; 3) reduce phosphorus inputs to Lake Champlain to promote a healthy and diverse ecosystem and provide for sustainable human use and enjoyment of the Lake; 4) reduce toxic contamination to protect public health and the Lake Champlain ecosystem; 5) promote a basin-wide perspective on water quality issues of regional and national importance; 6) coordinate efforts of water pollution control experts to assist in evaluating the spread of invasive species in the Lake and to develop an appropriate management plan to minimize their impact; 7) minimize the risks to humans from water-related health hazards in the Lake Champlain Basin; 8) protect, conserve and restore Lake Champlain basin wetlands, streams and riparian habitats and the functions and values they provide; and 9) inform citizens of activities and progress related to program implementation and towards achieving water quality goals. This award will be assisting research, monitoring, studies, and modeling and technical and supporting work necessary for the development and implementation of the Lake Champlain Management Plan.	9/6/2017	10/1/2017	9/30/2020
97748601	V	66.802	EPA R7	R07	RACHEL WALTERS	WHITNEY RAWLS	Management of Omaha Lead Superfund Site	This amendment to the existing soil sampling/remediation cooperative agreement between the USEPA and City of Omaha will add activities currently being conducted by the City of Omaha under two separate cooperative agreements(exterior paint stabalization and institutional controls) as well as health education and outreach activities into one cooperative agreement.	5/17/2016	6/1/2015	5/31/2022
00A00471	NE	66.951	EPA R1	R01	JULIE ROSS	KRISTEN CONROY	Empowering Boston Youth	Leaders through Education, Action, and Hope (LEAH) Project is a youth and career development program which provides low-income, Boston Public School (BPS) high school students of color with paid teaching internships to teach an evidence-based science curriculum to elementary school children in after school programs. Through the LEAH Project, high school students are trained to teach 4th-6th grade students an evidence-based Urban Ecology Curriculum (UEC) which has been adapted specifically for this age group. The LEAH Project pilots the UEC, which uses interactive lessons to engage students in learning, problem-solving, and decision-making related to resiliency and energy efficiency. Partner sub-grants support events in which students serve as stewards to address energy efficiencies/resiliency threats in their neighborhoods.	8/23/2017	1/1/2018	12/31/2019
99T08901	PM	66.034	EPA R9	R09	ELIZABETH ARMOUR	LAUREN MAGHRAN	PM2.5 MONITORING NETWORK	To provide funding to monitor fine particulate matter with the diameter equal to or smaller than 2.5 micrometers (PM2.5) in order to determine compliance with the PM2.5 National Ambient Air Quality Standards and determine deductions in air emissions. Specifically this grant is for funding to Pima County to fund their FRM and FEM PM2.5 monitoring network, for the PM2.5 speciation sampler at Children's Park, and two continuous PM2.5 monitors.	6/19/2018	4/1/2014	3/31/2019
83563301	RD	66.509	EPA HQ	ORD	ALISON HANLON	INTAEK HAHN	Indoor Env Factors & Effects on K-12 Student Perf	The objectives of the research project are: (1) to study comprehensively the impacts of a wide set of indoor environmental factors (including indoor air quality, thermal, lighting and acoustic conditions) on student achievement; (2) to investigate how these environmental conditions interact with each other to impact student achievement; (3) to rank order the environmental variables in terms of their relative impact on student achievement; and (4) to determine how these effects vary with different demographic (e.g. socio-economic) groups.	9/13/2018	11/1/2014	10/31/2019
83563401	RD	66.509	EPA HQ	ORD	THUY NGUYEN	INTAEK HAHN	Sustainability, Clean Air & Safety in School Design	The objective of the study is to determine how 1) sustainability 2) air quality 3) healthy learning interiors and 4) structural safety affect one another and ultimately impacts student performance and health outcomes. Each of these design items has been studied and characterized individually but decisions makers often have to choose between them not understanding the consequences of their decisions. The purpose of this study is to provide decision makers with an evidence based tool for balancing these four criteria in an effort to achieve the best outcomes for students.	11/25/2014	11/1/2014	10/31/2018
83563501	RD	66.509	EPA HQ	ORD	THUY NGUYEN	INTAEK HAHN	Sustainable Places, Health and Research in Schools	The main objectives are to determine which combination of building features, materials, and construction practices are most effective in creating health IAQ; examine how features of green buildings that improve environmental quality mediate the relationships between improved air quality and student/teacher health and performance; and determine the ROI (return on investment) for sustainable building design and construction in terms of human performance. The proposal describes a natural experiment in three types of K-12 schools (green, retrofitted, conventional) in a non-urban setting.	6/10/2015	3/2/2015	3/1/2019
83563602	RD	66.509	EPA HQ	ORD	ROBIN HOLDER	INTAEK HAHN	School Environmental Effects on Kids Health & Performance	The project will fill existing research gaps by using personal monitors in a sub-sample of 100 occupants to measure exposure, examine if school environment-health/performance associations are modified by socio-demographics, neighborhood characteristics, and seasonal factors, and identify best and sustainable building practices through community approach and intervention.	3/28/2016	8/1/2015	12/17/2018
83563701	RD	66.509	EPA HQ	ORD	HAZELETTA BURGESS	INTAEK HAHN	Env Quality Health & Learning in School Buildings	The proposed research plan has three goals: (1) increasing our understanding of the relationship between environmental factors and the health and academic performance of students, teachers and staff; (2) evaluating the use and effectiveness of indoor environmental quality (IEQ) measures used in high performance school buildings; and (3) promoting an understanding of the importance of IEQ in schools and IEQ targets for high performance buildings and informing the next generation of standards for the sustainable design of schools.	4/29/2015	11/20/2014	11/19/2018
83563801	RD	66.509	EPA HQ	ORD	THUY NGUYEN	INTAEK HAHN	High School Partnership in Rsch on Indoor Envs	The project proposes to conduct an intensive field study campaign to delineate the relationship between environmental factors that are well represented in the 6 schools that will participate in this project and student health. The objectives include studying problems in school HVAC systems that cause poor ventilation rates, increased pollutant concentrations and adverse health symptoms for school occupants, and using molecular techniques to investigate relationships between composition and diversity of the microbial community.	6/11/2015	2/1/2015	1/31/2019
83563901	RD	66.509	EPA HQ	ORD	ROBIN HOLDER	INTAEK HAHN	Baltimore Schools: Indoor AQ Health & Performance	The objectives of this research are to assess the impact of indoor and outdoor air quality on student achievement, student health and overall school climate; and to document the impact of changes in indoor air quality and in school performance indicators associated with modernization of school facilities in Baltimore City.	4/22/2015	12/18/2014	12/17/2018
83564301	RD	66.509	EPA HQ	ORD	JENNIFER BROOKS	JAMES CARLETON	Measuring Multiple Chemicals in Pregnant Women	This proposal will conduct a non-targeted screen for 729 environmentally organic acids in serum and blood samples of 200 diverse, pregnant women.	10/17/2017	10/1/2014	9/30/2018
83573601	RD	66.509	EPA HQ	ORD	ROBIN HOLDER	BARBARA KLIEFORTH	Organotypic Models for Predictive Toxicology	This center will advance predictive toxicology by developing 4 organotypic culture models: liver, mammary gland, limb/joint development, and fetal membrane. These 3D cultures of heterotypic cells will better approximate the in vivo cellular microenvironment and are amenable and affordable for medium to high throughput screening. Screening of these OCMs against 30-50 chemicals from the ToxCast inventory will demonstrate whether OCM toxicity is predictable from ToxCast in vitro assays and whether OCM toxicity is predictive of previous animal studies and/or human epidemiology.	7/18/2018	12/1/2014	11/30/2019
83573701	RD	66.509	EPA HQ	ORD	ALISON HANLON	BARBARA KLIEFORTH	Human Models for Analysis of Pathways Center	The Human Models for Analysis of Pathways(H-MAPs) Center will develop a broadly applicable set of tools for toxin screening by generating pluripotent stem cell-derived cells that represent the diverse phenotypic characteristics of developing or mature human somatic cells; creating organotypic cell culture models that are robust and reproducible; translating organotypic cell culture models to microscale systems for high-throughput screening; combining genomic/epigenomic analyses with bioinformatics.	7/20/2018	12/1/2014	11/30/2019
83573801	RD	66.509	EPA HQ	ORD	ALISON HANLON	BARBARA KLIEFORTH	Organotypic Models for Engineered Nanomaterials	Four organotypic culture projects that reflect the complexity and function of lung, kidney, liver and testis will evaluate the potential for cellular and organ toxicity following exposure to Engineered Nanomaterials (ENMs) within an adverse outcomes pathway (AOP) model. Observations will cross species, organs, and lifestages within a toxicokinetic and dynamic driven risk assessment framework.	7/10/2018	12/1/2014	11/30/2019
83580201	RD	66.509	EPA HQ	ORD	THUY NGUYEN	BARBARA KLIEFORTH	Cardiotoxicity Adverse Outcome Pathway Center	The goal of the Center is to establish and validate effective, accurate and fiscally responsible means for identifying/characterizing cardiac chemical hazards. This proposal hypothesizes that: (i) stem cell-derived cardiomyocyte cultures constitute an effective organotypic culture model for predictive toxicity screening of environmental chemicals; (ii) a population-based experimental design can assess variation in toxicity to characterize uncertainties; and (iii) integration of dosimetry with screening provides an in vivo context to in vitro data and improves human health assessments.	7/17/2018	6/1/2015	5/31/2019
83578501	CR	66.511	EPA HQ	ORD	SUZANNE HERSH	MICHAEL SCHMITT	Human Health Effects of Environment Pollutants	This on-site cooperative agreement will use advanced and unique systems located in the EPA Human Studies Facility at Chapel Hill to expose healthy and diseased human volunteers, as well as respiratory tract cells from these volunteers, to a wide range of pollutants, while using a variety of physiological, molecular, social and clinical techniques to detect pollutants effects.	6/26/2018	4/1/2015	3/31/2022

Message

From: Busch, Nicole [BuschN@cbsnews.com]
Sent: 10/14/2018 9:36:14 PM
To: Konkus, John [konkus.john@epa.gov]
Subject: RE: CBS NEWS INQUIRY - ON DEADLINE

Thank you, John.

From: Konkus, John <konkus.john@epa.gov>
Sent: Sunday, October 14, 2018 4:16 PM
To: Busch, Nicole <BuschN@cbsnews.com>
Cc: Block, Molly <block.molly@epa.gov>; Lynn, Tricia <lynn.tricia@epa.gov>; Press <Press@epa.gov>
Subject: Re: CBS NEWS INQUIRY - ON DEADLINE

Here is a statement on Dr. Etzel: "Although EPA does not customarily comment on personnel matters, due to circulating misinformation, the Director of EPA's Office of Children's Health Protection was placed on leave to give the Agency the opportunity to review allegations about the Director's leadership of the office." **– EPA Chief of Staff, Ryan Jackson**

here is a statement on the Office of Children's Health: "Children's health is and has always been a top priority for the Trump Administration and the EPA in particular is focused on reducing lead exposure in schools, providing funds for a cleaner school bus fleet, and cleaning up toxic sites so that children have safe environments to learn and play. These are just a few of the dozens of objectives the EPA's Office of Children's Health will continue work on during this administration." — EPA Spokesperson

We would ask you to review and include in reporting these three press releases we have recently sent on the subject:

https://www.epa.gov/newsreleases/childrens-health-month-epa-offers-nearly-30-million-support-cleaner-water-and-air

https://www.epa.gov/newsreleases/acting-administrator-wheeler-reaffirms-commitment-protecting-childrens-health

https://www.epa.gov/newsreleases/childrens-health-month-epas-commitment-promoting-healthy-environments-where-children

Thank you,

John Konkus
Environmental Protection Agency
Deputy Associate Administrator
Office of Public Affairs

On Oct 14, 2018, at 3:34 PM, Busch, Nicole <BuschN@cbsnews.com> wrote:

> Hi Molly and Tricia,
> CBS News correspondent, Anna Werner, and I are working on a piece scheduled to air on CBS This Morning tomorrow morning regarding Dr. Ruth Etzel being placed on administrative leave. We sent a request for comment to EPA's main media email address last Wednesday and spoke with Mr. Darwin on Thursday at the Children's Health Protection Advisory Committee meeting (speaking briefly with you both as well).
> We would like to reiterate if there are additional comments you would like to provide concerning Dr. Etzel's leave and or to criticism from both Dr. Etzel and other children's health advocates that the EPA is

not doing enough to regulate risks posed to children's health or making it a priority-- please do so by tonight.

Please respond by 9pm EST this evening.
Thank you,
Nicole
212-975-2383

Message

From: Konkus, John [konkus.john@epa.gov]
Sent: 10/5/2018 7:40:40 PM
To: awittenberg@eenews.net
Subject: Background on OCHP and Dr. Firestone bio
Attachments: Michael Firestone bio Sep 2018.docx; ATT00001.htm

Dr. Firestone's (bio attached) regulatory work in the past has included:

- Certification & Training (C&T) of Pesticide Applicators [FIFRA]
- Pesticide Worker Protection Regulations
- 2008 Lead NAAQS

Ongoing regulations he's recently worked on include:

- National Primary Drinking Water Regulations: Regulation of Perchlorate
- Endangerment Finding for Lead Emissions from Piston-Engine Aircraft Using Leaded Aviation Gasoline
- Certification of Pesticide Applicators (CPA) Rule; Reconsideration of the Minimum Age Requirements
- Agricultural Worker Protection Standard (WPS); Reconsideration of Several Requirements Incl. Rescinding Childhood Age Restrictions

Regulatory workgroups other OCHP staff are currently participating on other include:

- "Lead; Renovation, Repair, and Painting Program for Public and Commercial Buildings [TSCA Section 402(c)(3)]"
- National Primary Drinking Water Regulations for Lead and Copper: Regulatory Revisions
- Lead; Residential Lead Dust Hazard Standards [TSCA Section 403]
- Trichloroethylene (TCE) - TSCA Section 6(a); aerosol degreasing and spot cleaning in dry cleaning facilities
- Trichloroethylene (TCE); Rulemaking Under TSCA §6(a); Vapor Degreasing
- Paint Removers - Methylene Chloride (MC) and N-Methylpyrrolidone (NMP) - TSCA Section 6(a)
- Cyanotoxin Ambient Water Quality Criteria for Recreational Waters
- Regulation of Persistent, Bioaccumulative and Toxic (PBT) Chemicals under TSCA 6 (h)
- Regulatory Determinations for CCL 4
- National Primary Drinking Water Regulations: Group Regulation of Carcinogenic Volatile Organic Compounds (VOCs)
- "Polychlorinated Biphenyls (PCBs); Reassessment of Use Authorizations [TSCA Section 6(e)]"
- "Lead Wheel Weights; Regulatory Investigation [TSCA Section 21]"
- PM NAAQS Review
- Review of National Ambient Air Quality Standards (NAAQS) for Sulfur Dioxide (SO2)

Michael Firestone, Ph.D.
Office: 202-564-2199
Email: Firestone.Michael@epa.gov

Dr. Michael Firestone joined the EPA in 1984 after receiving a Ph.D. in chemistry from Georgetown University.

He had been serving as the Acting Deputy Director of EPA's Office of Children's Health Protection since April 2018 where he has focused on strategic planning, office transformation and budgeting.

He began his career in EPA's Pesticides Program, where he led the branch responsible for assessing occupational and residential exposure. In 1990, Dr. Firestone was appointed to the position of Science Advisor to the Assistant Administrator in the Office of Chemical Safety and Pollution Prevention. In this position, he led research coordination and peer review activities for the program and also led the development of science policy and risk assessment guidance, including EPA's policy on Probabilistic Modeling; a research strategy to support development of residential exposure testing and assessment guidelines; and agency guidance on environmental regulatory modeling responsible for developing guidance for conducting peer review of modeling. Dr. Firestone also served as the Acting Associate Office Director of the newly created Office of Science Coordination and Policy.

Dr. Firestone joined the Office of Children's Health Protection in 2000 as the science team lead where he continued his efforts on research planning and the development of risk assessment guidance and science policy related to children's environmental health. Examples of leadership activities include:

- Co-chair/project officer of a federal-wide contract with the National Academy of Sciences to study the future of toxicity testing and co-chair of a follow-up workgroup under EPA's Science Policy Council to develop a Strategic Plan for the Future of Toxicity Testing and Risk Assessment at EPA;
- Chair of an EPA Technical Panel which developed "Guidance on Selecting Age Groups for Monitoring and Assessing Childhood Exposures to Environmental Contaminants"; and
- Co-Chair of an effort which developed EPA's Risk Assessment Portal (epa.gov/risk).

Dr. Firestone has been a longtime member of EPA's Risk Assessment Forum, a committee of senior EPA scientists which was established to promote Agency-wide consensus on difficult and controversial risk assessment issues.

Starting in January 2017, he has served as the EPA (and Managing) Co-Chair, along with HHS and HUD, of the Federal Lead Subcommittee, under the President's Task Force on Environmental Health Risks and Safety Risks to Children, to develop a *Federal Lead Strategy to Eliminate or Reduce Childhood Lead Exposure and Associated Health Impacts*.

EDUCATION

Ph.D., Georgetown University, Washington, DC (December 1981) – Major: Chemistry; Area of emphasis: Biochemistry. Dissertation: Kinetics of Sickle Cell Hemoglobin Aggregation

B.S., University of Maryland, College Park, MD (May 1976) – Major: Biochemistry

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PUBLICATIONS

U.S. Environmental Protection Agency's framework for human health risk assessment to inform decision making
Int. J. of Risk Assessment and Management, Volume 20, No.1/2/3, pp. 3 - 20 (2017)

Two Decades of Enhancing Children's Environmental Health Protection at the U.S. Environmental Protection Agency
Environ Health Perspectives, 124(12): A214-A218 (2016)

Identifying important life stages for monitoring and assessing risks from exposures to environmental contaminants: Results of a World Health Organization review
Regulatory Toxicology and Pharmacology, Volume 69, Issue 1, June 2014, 113–124 (2014)

Protecting children from environmental risks throughout each stage of their childhood
Journal of Exposure Science and Environmental Epidemiology, 20, 227–228 (2010)

The future of toxicity testing for environmental contaminants
Environmental Health Perspectives, 117(7):A283 (2009)

Potential New Approaches for Children's Inhalation Risk Assessment
Journal of Toxicological and Environmental Health – Part A.71 (3): 208-17 (2008)

Identifying Childhood Age Groups for Exposure Assessments and Monitoring
Risk Analysis, 27(3): 701-714 (2007)

Review and Analysis of Inhalation Dosimetry Methods for Application to Children's Risk Assessment
Journal of Toxicological and Environmental Health – Part A. 68(8): 573-615 (2005)

Children's Environmental Health – An International Perspective
International Journal of Hygiene and Environmental Health. 206(4-5): 395-400 (2003)

EPA AWARDS

- EPA Honor Award Bronze Medal – Documenting Twenty Years of EPA's Successes Protecting Children from Environmental Threats – 2017
- EPA Honor Award Bronze Medal – Development of EPA's Children's Environmental Research Roadmap – 2016
- EPA Honor Award Bronze Medal – Development of EPA's Framework for Human Health Risk Assessment – 2015
- ORD Impact Award – Children's Environmental Health and Disease Prevention Research Centers Team (2014)
- EPA Honor Award Bronze Medal – Perchlorate Regulatory Determination – 2012
- EPA Honor Award Bronze Medal – Children's Health Rulemaking Tracking – 2011
- EPA Honor Award Bronze Medal – Chemical Safety for Sustainability Research Program Development Team – 2011

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- EPA Honor Award Bronze Medal – Sustainable & Healthy Communities Strategic Research Action Plan Team – 2011
- Exceptional Support to ORD Award – IRIS Support – 2010
- Joseph Seifter Award for Human Health Risk Assessment – Toxicity and Exposure Assessment for Children's Health (TEACH) Advisory Committee – 2008
- EPA Honor Award Gold Medal – Development of EPA's Guidance on Selecting Age Groups for Monitoring and Assessing Childhood Exposures to Environmental Contaminants – 2007
- EPA Honor Award Silver Medal – Development of EPA's Cancer Risk Assessment Guidelines and Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens – 2006
- EPA Honor Award Silver Medal – Development of EPA's Web Portal for Mercury – 2005
- EPA Honor Award Bronze Medal – Teach (Toxicity & Exposure Assessment for Children's Health) Web Site Development Team
- EPA Honor Award Bronze Medal – Development of EPA's Policy on Probabilistic Modeling – 1998
- EPA Honor Award Bronze Medal – Coordination of Agency Scientific Research – 1997

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Message

From: Grantham, Nancy [Grantham.Nancy@epa.gov]
Sent: 10/12/2018 1:35:02 PM
To: Konkus, John [konkus.john@epa.gov]
Subject: Fwd: Peters, Stabenow & Kildee Press EPA on Dismissal of Children's Health Protection Office Director

Sent from my iPhone

Begin forwarded message:

> **From:** "Wooden-Aguilar, Helena" <Wooden-Aguilar.Helena@epa.gov>
> **Date:** October 12, 2018 at 9:31:33 AM EDT
> **To:** "Grantham, Nancy" <Grantham.Nancy@epa.gov>, "Vizian, Donna" <Vizian.Donna@epa.gov>, "Richardson, RobinH" <Richardson.RobinH@epa.gov>
> **Subject: Fwd: Peters, Stabenow & Kildee Press EPA on Dismissal of Children's Health Protection Office Director**
>
> FYI.
>
> Helena Wooden-Aguilar
> Acting Deputy Chief of Staff
> U.S. Environmental Protection Agency
> 202-564-0792 (Work)
> Ex. 6 (Cell)
> wooden-aguilar.helena@epa.gov
>
> Begin forwarded message:
>
> > **From:** "Firestone, Michael" <Firestone.Michael@epa.gov>
> > **Date:** October 12, 2018 at 9:23:24 AM EDT
> > **To:** "Wooden-Aguilar, Helena" <Wooden-Aguilar.Helena@epa.gov>
> > **Subject: Fwd: Peters, Stabenow & Kildee Press EPA on Dismissal of Children's Health Protection Office Director**
> >
> > Just in case you haven't yet heard.
> >
> > Michael P. Firestone, Ph.D., Acting Director
> > Office of Children's Health Protection (MC 1107T)
> > U.S. Environmental Protection Agency
> > Office: 202-564-2199
> > Cell: Ex. 6
> >
> > Begin forwarded message:
> >
> > > **From:** "Dzubow, Rebecca" <Dzubow.Rebecca@epa.gov>
> > > **Date:** October 12, 2018 at 9:21:37 AM EDT
> > > **To:** AO-OCHP-Everyone <AOOCHPEveryone@epa.gov>

Subject: Peters, Stabenow & Kildee Press EPA on Dismissal of Children's Health Protection Office Director

10.11.18

Peters, Stabenow & Kildee Press EPA on Dismissal of Children's Health Protection Office Director

WASHINGTON, D.C. – U.S. Senators Gary Peters and Debbie Stabenow and U.S. Representative Dan Kildee today wrote a letter to U.S. Environmental Protection Agency (EPA) Acting Administrator Andrew Wheeler about the removal of the EPA's Office of Children's Health Protection Director, Dr. Ruth Etzel. The lawmakers pressed Wheeler for more details surrounding the dismissal, especially during a period when families across Michigan are facing numerous drinking water contamination crises.

"It is imperative that the EPA takes every possible step to avoid childhood exposure to unsafe toxins like lead and PFAS and ensure all children are able to grow up happy and healthy," **wrote Peters, Stabenow and Kildee**. "As the federal government works to reduce the unnecessary incidence of asthma, developmental delays, and cancers, the EPA needs to keep a strong focus on the youngest Americans, who are most vulnerable to the negative impacts of environmental toxins. We request more information about a sudden personnel decision that suggests the EPA is not following through with its stated commitment to prioritizing children's health."

"Our home state of Michigan experienced one of the nation's largest man-made environmental disasters with lead-contaminated drinking water in Flint...But the most heartbreaking stories were from parents, whose children are facing significant physical, cognitive and developmental challenges from lead exposure," **the Members continued.** "Going forward, we need to ensure we have a strong national infrastructure to prevent a scenario like the Flint water crisis from ever happening again, and the Office of Children's Health Protection is key to this strategy."

The lawmakers asked Acting Administrator Wheeler for more details regarding why the agency decided to remove Dr. Etzel, and requested additional information on how the Office of Children's Health Protection will maintain day-to-day operations in her absence.

A copy of the letter can be found here and below:

October 11, 2018

Andrew Wheeler

Acting Administrator

U.S. Environmental Protection Agency

1200 Pennsylvania Avenue, N.W.

Washington, DC 20460

Dear Acting Administrator Wheeler:

We are writing to express serious concerns and request further information about the U.S. Environmental Protection Agency (EPA)'s abrupt decision to place Dr. Ruth Etzel on administrative leave from the position of Director of the Office of Children's Health Protection. The EPA has not provided sufficient justification for the dismissal of a senior non-political professional with decades of expertise in protecting children from unsafe exposure to toxins and chemicals, nor has the agency identified a new candidate willing to perform the duties of this office. The Office of Children's Health Protection is critical in an era where toxins in our environment, including lead, mercury, and per/polyfluoroalkyl substances (PFAS), introduce developmental and health barriers to thousands of American youth.

Our home state of Michigan experienced one of the nation's largest man-made environmental disasters with lead-contaminated drinking water in Flint. We heard from thousands of constituents, who were forced to use bottled water to drink, cook and bathe. To this day, many still do not trust the water coming from their faucets. But the most heartbreaking stories were from parents, whose children are facing significant physical, cognitive and developmental challenges from lead exposure. Children are the most

vulnerable to the ill effects of lead exposure, and they will experience the longest-term impact. Going forward, we need to ensure we have a strong national infrastructure to prevent a scenario like the Flint water crisis from ever happening again, and the Office of Children's Health Protection is key to this strategy.

The Flint water crisis is just one example of how childhood exposure to toxins can undermine the prosperity of an entire community. Children in lower income and minority communities continue to bear most of the health burden from mercury-emitting coal-fired plants. Each day, we also learn more about the chronic health conditions that develop as a result of widespread exposure to PFAS. Further research is needed on the health impacts caused by this class of over 4,700 industrial chemicals, but we already know certain PFAS increase the risk of some cancers, harm the immune and endocrine systems, and negatively affect the growth, learning, and behavior of infants and children.

Based on publicly available facts, Dr. Etzel is well-qualified for the position of Director at the Office of Children's Health Protection. She is a world-renowned pediatrician and epidemiologist with over three decades of experience aligned with the office's mission. Prior to becoming the office's Director in 2015, she served as a senior officer for environmental health research at the World Health Organization and received numerous national awards for her work. Dr. Mona Hannah-Attisha, a pediatrician who played a central role in elevating the impact of the Flint water crisis on children, describes Dr. Etzel as "an international leader in children's health."

The EPA has stated that children's health remains a top priority for the Administration at the same time it has dismissed, without apparent reason, the head of the office that oversees children's health. As such, we request the EPA respond to the following requests for information within 30 days:

- What is EPA leadership's reasoning and justification for Dr. Etzel's removal?
- Which EPA officials were consulted and ultimately made the decision to place Dr. Etzel on leave?
- How was Dr. Etzel notified of the decision to place her on leave?

- How will this personnel decision impact the EPA's ability to perform its mission of reducing environmental risk factors for children's health?
- How many full-time staff have been budgeted within the Office of Children's Health Protection for Fiscal Year 2017, 2018, and 2019?
- Who is performing the duties of Director of the Office of Children's Health Protection currently?
- When does EPA intend to hire a new Director for the Office of Children's Health Protection?
- How long does EPA intend to provide administrative leave and other employment benefits for Dr. Etzel?

It is imperative that the EPA takes every possible step to avoid childhood exposure to unsafe toxins like lead and PFAS and ensure all children are able to grow up happy and healthy. As the federal government works to reduce the unnecessary incidence of asthma, developmental delays, and cancers, the EPA needs to keep a strong focus on the youngest Americans, who are most vulnerable to the negative impacts of environmental toxins. We request more information about a sudden personnel decision that suggests the EPA is not following through with its stated commitment to prioritizing children's health.

https://www.peters.senate.gov/newsroom/press-releases/peters-stabenow-and-kildee-press-epa-on-dismissal-of-childrens-health-protection-office-director

~~~~~~

Rebecca C. Dzubow, MPH, MEM
Health Scientist
U.S. EPA Office of Children's Health Protection | Regulatory Support and Science Policy Division
1200 Pennsylvania Avenue, NW (1107T) | Washington, DC 20460
(202) 564-0967
~~~~~~

Message

From: Konkus, John [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=555471B2BAA6419E8E141696F4577062-KONKUS, JOH]
Sent: 9/26/2018 3:24:08 PM
To: Kevin Bogardus [kbogardus@eenews.net]
Subject: Re: Ruth Etzel?

Thanks.

Sent from my iPhone

On Sep 26, 2018, at 11:21 AM, Kevin Bogardus <kbogardus@eenews.net> wrote:

> Thanks John. Appreciate it. We have various people telling us that Etzel was put on leave so we're moving forward with a story today in our one o'clock edition. We have both Donna's statement and your statement in that story. Thanks again.
>
> -Kevin
>
> ---
>
> **From:** Konkus, John [mailto:konkus.john@epa.gov]
> **Sent:** Wednesday, September 26, 2018 8:32 AM
> **To:** Kevin Bogardus <kbogardus@eenews.net>
> **Cc:** Abboud, Michael <abboud.michael@epa.gov>; Hewitt, James <hewitt.james@epa.gov>; Block, Molly <block.molly@epa.gov>; Press <Press@epa.gov>
> **Subject:** Re: Ruth Etzel?
>
> The New York Times is correcting their story to reflect that we did not confirm any personnel moves. The only statements that we are providing for the record are the two that you have. Thank you, Kevin
>
> Sent from my iPhone
>
> On Sep 26, 2018, at 7:10 AM, Kevin Bogardus <kbogardus@eenews.net> wrote:
>
> > Thanks John. Big help. I really appreciate it.
> >
> > Any chance you can confirm that Etzel was placed on administrative leave? You did so in this New York Times story (https://www.nytimes.com/2018/09/26/climate/epa-etzel-children-health-program.html).
> >
> > Please let me know. Thanks again for your help.
> >
> > -Kevin
> >
> > Sent from my iPhone
> >
> > On Sep 26, 2018, at 7:06 AM, Konkus, John <konkus.john@epa.gov> wrote:

"We do not comment on personnel matters." -- Donna Vizian, Principal Deputy Assistant Administrator, Office of Administration and Resources Management

"Headquarters has a number of specialty focused offices including the children's health, environmental justice, civil rights, and small business offices and these offices will continue to be a part of headquarters and regional organizations. Children's health is and has always been a top priority for the Trump Administration and the EPA in particular is focused on reducing lead exposure in schools, providing funds for a cleaner school bus fleet, and cleaning up toxic sites so that children have safe environments to learn and play." – John Konkus, EPA spokesman

Sent from my iPhone

> On Sep 26, 2018, at 6:55 AM, Kevin Bogardus <kbogardus@eenews.net> wrote:
>
> Hey everyone,
>
> It's Kevin Bogardus with E&E News.
>
> I'm working on a story about Ruth Etzel, director of EPA's Office of Children's Health Protection, and her job status at the agency. I had a few questions about this, which are:
>
> — I understand that Etzel was put on administrative leave yesterday. Is that accurate?
>
> — Why was Etzel put on administrative leave?
>
> — Does EPA plan to eliminate or downsize its Office of Children's Health Protection?
>
> Please get back to me as soon as possible. My deadline is noon EST today but the sooner you get back to me, the more it helps my reporting. Thank you for your help.

-Kevin

Sent from my iPhone

Message

From: Konkus, John [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=555471B2BAA6419E8E141696F4577062-KONKUS, JOH]
Sent: 10/5/2018 1:07:40 AM
To: Grantham, Nancy [Grantham.Nancy@epa.gov]
Subject: Re: E and E News Question

Excellent thank you

Sent from my iPhone

On Oct 4, 2018, at 8:43 PM, Grantham, Nancy <Grantham.Nancy@epa.gov> wrote:

> Re Ariel's regulatory question thx ng
>
> Sent from my iPhone
>
> Begin forwarded message:
>
> > **From:** "Firestone, Michael" <Firestone.Michael@epa.gov>
> > **Date:** October 4, 2018 at 6:01:08 PM EDT
> > **To:** "Grantham, Nancy" <Grantham.Nancy@epa.gov>, "Hackel, Angela" <Hackel.Angela@epa.gov>, "Foos, Brenda" <Foos.Brenda@epa.gov>
> > **Cc:** "Wooden-Aguilar, Helena" <Wooden-Aguilar.Helena@epa.gov>
> > **Subject: RE: E and E News Question**
>
> <image002.gif>
>
> Nancy
>
> For an overview of OCHP activities, I've attached an article I was the lead author on titled: Two Decades of Enhancing Children's Environmental Health Protection at the U.S. Environmental Protection Agency.
>
> Specifically, with regard to regulations, regulations I have personally worked on in the past include:
>
> - Certification & Training (C&T) of Pesticide Applicators [FIFRA]
> - Pesticide Worker Protection Regulations
> - 2008 Lead NAAQS
>
> Ongoing regulations I've recently worked on include:
>
> - National Primary Drinking Water Regulations: Regulation of Perchlorate
> - Endangerment Finding for Lead Emissions from Piston-Engine Aircraft Using Leaded Aviation Gasoline
> - Certification of Pesticide Applicators (CPA) Rule; Reconsideration of the Minimum Age Requirements

- Agricultural Worker Protection Standard (WPS); Reconsideration of Several Requirements Incl. Rescinding Childhood Age Restrictions

Regulatory workgroups other OCHP staff are currently participating on other include:

- "Lead; Renovation, Repair, and Painting Program for Public and Commercial Buildings [TSCA Section 402(c)(3)]"
- National Primary Drinking Water Regulations for Lead and Copper: Regulatory Revisions
- Lead; Residential Lead Dust Hazard Standards [TSCA Section 403]
- Trichloroethylene (TCE) - TSCA Section 6(a); aerosol degreasing and spot cleaning in dry cleaning facilities
- Trichloroethylene (TCE); Rulemaking Under TSCA §6(a); Vapor Degreasing
- Paint Removers - Methylene Chloride (MC) and N-Methylpyrrolidone (NMP) - TSCA Section 6(a)
- Cyanotoxin Ambient Water Quality Criteria for Recreational Waters
- Regulation of Persistent, Bioaccumulative and Toxic (PBT) Chemicals under TSCA 6 (h)
- Regulatory Determinations for CCL 4
- National Primary Drinking Water Regulations: Group Regulation of Carcinogenic Volatile Organic Compounds (VOCs)
- "Polychlorinated Biphenyls (PCBs); Reassessment of Use Authorizations [TSCA Section 6(e)]"
- "Lead Wheel Weights; Regulatory Investigation [TSCA Section 21]"
- PM NAAQS Review
- Review of National Ambient Air Quality Standards (NAAQS) for Sulfur Dioxide (SO2)

I hope this helps.

Michael P. Firestone, Ph.D., Acting Director
Office of Children's Health Protection (MC 1107T)
U.S. Environmental Protection Agency
Office: 202-564-2199
Cell: Ex. 6

From: Grantham, Nancy
Sent: Thursday, October 04, 2018 5:35 PM
To: Firestone, Michael <Firestone.Michael@epa.gov>; Hackel, Angela <Hackel.Angela@epa.gov>; Foos, Brenda <Foos.Brenda@epa.gov>
Cc: Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>; Grantham, Nancy <Grantham.Nancy@epa.gov>
Subject: E and E News Question

Hi Michael and Angela,

Please see below a question from Ariel Wittenberg of E and E News. Can OCHP provide draft information on this issue by 12 noon tomorrow? thanks ng

Also, I understand that OCHP, generally, advocates for children in EPA policies, but I'm particularly interested in finding concrete examples of rulemakings or other initiatives OCHP staff have contributed to. Any examples you'd like to share would be welcome.

Nancy Grantham
Office of Public Affairs
US Environmental Protection Agency
202-564-6879 (desk)
Ex. 6 (mobile)

<EHP - Two Decades of Enhancing Children's Environmental Health Protection at the U.S. Environmental Protection Agency.pdf>

Message

From: Konkus, John [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=555471B2BAA6419E8E141696F4577062-KONKUS, JOH]
Sent: 10/4/2018 8:59:58 PM
To: Beach, Christopher [beach.christopher@epa.gov]
Subject: FW: Meeting - can we move it to 10/12?
Attachments: chpac-agenda-october-2018.pdf; EPA OCHP Letter 10012018 FINAL updated.pdf

---

From: Jackson, Ryan
Sent: Thursday, October 4, 2018 4:37 PM
To: Konkus, John <konkus.john@epa.gov>; Grantham, Nancy <Grantham.Nancy@epa.gov>; Abboud, Michael <abboud.michael@epa.gov>; Hewitt, James <hewitt.james@epa.gov>; Block, Molly <block.molly@epa.gov>
Subject: FW: Meeting - can we move it to 10/12?

I just wanted to make you aware in the event they try to highlight this in some way.

When I called Ami she told me that she had not met with our children's health office in 2 years and was not aware that in addition to Dr. Etzel we have another pediatrician on contract with our children's health office. She was also unfamiliar with Dr. Firestone who is a PhD chemist and has been the science director of the children's health office for 18 years. How the American Academy of Pediatrics isn't familiar with our children's health office really makes one question what this organization does.

From: Jackson, Ryan
Sent: Thursday, October 4, 2018 4:32 PM
To: 'Gadhia, Ami' <agadhia@aap.org>
Cc: Willis, Sharnett <Willis.Sharnett@epa.gov>
Subject: RE: Meeting - can we move it to 10/12?

I'm sorry Friday October 12 is not convenient for attendees within EPA I would like to invite. We will need to move to the next week possibly October 18.

However, I would imagine that you or your organization would rather like to attend the FACA session hosted by our Children's Health Office being held Oct 11-12 here in Washington since you have not met with our children's health office for the past 2 years. The following is a link to information about it and attached is the itinerary to date. In fact, I'm surprised you and your organization would not already know Dr. Michael Firestone, the acting director of our children's health office. He has been the senior scientist for the office for the past 18 years having worked at EPA for 35 years.

https://www.epa.gov/children/childrens-health-protection-advisory-committee-chpac.

Thanks,

Ryan.

From: Gadhia, Ami [mailto:agadhia@aap.org]
Sent: Thursday, October 4, 2018 12:28 PM
To: Jackson, Ryan <jackson.ryan@epa.gov>
Subject: Meeting - can we move it to 10/12?

Ryan,

Could we move our meeting from 10/11 at 2pm to any time on Friday, 10/12? One of the attendees has chemotherapy on the 11th and is unavailable all day.

Thanks,

Ami

Ami V. Gadhia
Director, Federal Advocacy and Regulatory Affairs
American Academy of Pediatrics
601 13th Street NW, Suite 400N
Washington, DC 20005
(202) 347-8600
@AmerAcadPeds

U.S. Environmental Protection Agency
CHILDREN'S HEALTH PROTECTION ADVISORY COMMITTEE
October 11–12, 2018
Holiday Inn Capitol
550 C Street SW, Washington, DC 20024
Nearest Metro Stop: L'Enfant Plaza Station
Call-In Number: 1-877-423-6338 Code: 177-751#

Agenda

Confirmed Topics

- Discuss the process of reviewing the National Ambient Air Quality Standards (NAAQS) and current revisions
- Receive an overview of manganese in drinking water in Minnesota
- Learn about polychlorinated biphenyls (PCBs) in New York City Schools
- Receive updates on Per- and Polyfluoroalkyl Substances (PFAs)
- Hear about current and future work of the Children's Environmental Health and Disease Prevention Research Centers from NIEHS and EPA
- Learn about EPA's revised 3Ts Toolkit: Training, Testing, Taking Action
- Understand the EPA Chemical Safety for Sustainability Research Program

Thursday, October 11, 2018

10:30–11:00	**REGISTRATION**
11:00–11:10	**Welcome** Helena Wooden-Aguilar, Acting Deputy Chief of Staff U.S. Environmental Protection Agency
11:10–11:30	**Introductions and Review of the Agenda** Barbara Morrissey, CHPAC Chair
11:30–12:10	**Air Quality Standards Update** Clint Woods, Deputy Assistant Administrator, EPA Office of Air and Radiation Discussion
12:10–12:55	**Manganese: An Overlooked Drinking Water Contaminant?** Deanna Scher, Epidemiologist and Exposure Scientist, Minnesota Department of Health Discussion
12:55–1:15	**BREAK**
1:15–2:00	**PCBs in Schools: The New York City Experience** Maureen Little, Toxicologist, New York City Department of Health and Mental Hygiene Discussion

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2:00–3:00	**Per- and Polyfluoroalkyl Substances (PFAS) Updates** Peter Grevatt, Director, EPA Office of Ground Water and Drinking Water Discussion
3:00–3:20	**BREAK**
3:20–4:20	**NIEHS & EPA Children's Environmental Health Centers: The Translation of Research Into Strategies That Protect Our Children For A Lifetime** Linda Birnbaum, Director, NIH, National Institute of Environmental Health Sciences Q&A
4:20–4:45	**Public Comment**
4:45–5:00	**Wrap-Up**
5:00	**ADJOURN**

Friday, October 12, 2018

8:30–9:00	**REGISTRATION**
9:00–9:30	**Children's Environmental Health and Disease Prevention Research Centers: EPA** Jennifer Orme-Zavaleta, Principal Deputy Assistant Administrator for Science, EPA Office of Research and Development Q&A
9:30–10:45	**EPA's Revised 3Ts Toolkit: Training, Testing, Taking Action** Cathy Davis, Acting Chief, Protection Branch, EPA Office of Ground Water and Drinking Water Discussion
10:45–11:00	**BREAK**
11:00–12:00	**Chemical Safety for Sustainability Research Program: Support of TSCA and Children's Health** Jeff Frithsen, Acting National Program Director, EPA Chemical Safety for Sustainability Research Program Discussion
12:00–12:50	**Office of Children's Health Protection Update** Michael Firestone, Acting Director, EPA Office of Children's Health Protection Brenda Foos, Director, Regulatory Support and Science Policy Division Angela Hackel, Director Program Implementation and Coordination Division
12:50–1:00	**Wrap-Up** Barbara Morrissey, CHPAC Chair
1:00	**ADJOURN**

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October 1, 2018

Andrew R. Wheeler, JD, MBA
Acting Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Acting Administrator Wheeler:

The undersigned groups write with great concern about the news reports[i] that Dr. Ruth Etzel, director of the Environmental Protection Agency (EPA) Office of Children's Health Protection (OCHP), has been placed on administrative leave.

Established in 1997, OCHP is the only office within EPA dedicated to the health of children. Children are not little adults, and OCHP, as well as its pediatrician leadership, have the expertise to inform EPA policymaking so that it adequately protects children. Without this office and pediatric expertise, we are concerned that EPA policy could inadvertently harm or exclude children.

By placing Dr. Etzel on leave, the EPA has sent a signal that children's health is not a priority for the agency. We are particularly perplexed that this move has happened mere days before the start of Children's Health Month. The undersigned groups ask that EPA immediately clarify what action it has taken with regards to Dr. Etzel and with regards to OCHP, and make no further attempts to dismantle, re-organize, diminish, or otherwise reduce the abilities and authorities of OCHP.

In addition, by this letter the undersigned organizations formally request a meeting with you and the heads of our organizations. To arrange this meeting, please contact Ami Gadhia at the American Academy of Pediatrics, at agadhia@aap.org or (202) 347-8600.

Sincerely,

Academic Pediatric Association
African American Health Alliance
Alaska Community Action on Toxics
Allergy & Asthma Network
Alliance of Nurses for Healthy Environments
American Academy of Allergy, Asthma & Immunology
American Academy of Pediatrics
American Academy Pediatrics, Maryland Chapter
American Academy of Pediatrics, Pennsylvania Chapter
American Pediatric Society

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American Public Health Association
As You Sow
Association of Public Health Laboratories
Asthma and Allergy Foundation of America
Black Millennials for Flint
Breast Cancer Coalition of Rochester
Breast Cancer Prevention Partners
California Brain Tumor Association
California Safe Schools
Center for Climate Change and Health
Center for Environmental Health
Central California Asthma Collaborative
Ceres Community Project
Child Care Aware® of America
Childhood Lead Action Project
Children's Environmental Health Network
Children's Hospital of Philadelphia
Clean Water Action
Climate for Health
Coalition to Prevent Lead Poisoning
Collaborative for High Performance Schools
Collaborative on Health and the Environment
Columbia Center for Children's Environmental Health
Daily Acts Organization
Earthjustice
ecoAmerica
Ecology Center
Emory University Nell Hodgson Woodruff School of Nursing
Environmental Defense Fund
Environmental Health Strategy Center
Environmental Health Student Association
Environmental Health Watch
Environmental Integrity Project
Environmental Working Group

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First Focus
Green & Healthy Homes Initiative
Health Care Without Harm
Healthy Babies Bright Futures
Healthy Building Network
Healthy Children Project
Healthy Schools Network
Icahn School of Medicine at Mount Sinai
Institute of Neurotoxicology & Neurological Disorders
International Society for Children's Health and the Environment
International Society of Environmental Epidemiology
Johns Hopkins Bloomberg School of Public Health
Johns Hopkins Department of Environmental Health and Engineering
Lead Safe Mama, LLC
Learning Disabilities Association of America
Learning Disabilities Association of Illinois
Learning Disabilities Association of Maine
Learning Disabilities Association of Minnesota
Learning Disabilities Association of South Carolina
Learning Disabilities Association of Tennessee
Learning Disabilities Association of Utah
Learning Disabilities Association of Western New York
Learning Disabilities of America of Texas
March of Dimes
Maryland Institute for Applied Environmental Health
Moms Clean Air Force
National Association of County and City Health Officials
National Association of Pediatric Nurse Practitioners
National Center for Healthy Housing
National Resource Center for Health and Safety in Child Care and Early Education
Natural Resources Defense Council
Northeast Ohio Black Health Coalition
Ohio Environmental Council

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Ohio Healthy Homes Network

Oregon Environmental Council

Oregon Physicians for Social Responsibility

Parents For Students Safety

Pediatric Public Health Initiative

Pennsylvania Head Start Association

Pesticide Action Network

Physicians for Social Responsibility

Physicians for Social Responsibility, Tennessee Chapter

Physicians for Social Responsibility, Los Angeles

Physicians for Social Responsibility Maine Chapter

Physicians for Social Responsibility, Pennsylvania Chapter

Physicians for Social Responsibility, Wisconsin Chapter and the Wisconsin Environmental Health Network

Physicians for Social Responsibility, Philadelphia

Physicians for Social Responsibility, San Francisco Bay Area Chapter

Physicians for Social Responsibility, Colorado Chapter

Physicians for Social Responsibility, Florida Chapter

Pioneer Valley Asthma Coalition

Prevention Institute

Public Health Institute

Rachel Carson Council

Rachel's Network

Racial and Ethnic Health Disparities Coalition

Revitalize Community Development Corporation

Riley Asthma Program

Safer Chemicals Healthy Families

Safer States

Sears-Swetland Family Foundation

Sierra Club

Society for Public Health Education

Sonoma County Conservation Action

Southern Adirondack Child Care Network

Southwest Minnesota Housing Partnership

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The Great Lakes Center for Children's Environmental Health
Toxics Information Project
Trust for America's Health
UCLA Center for Occupational and Environmental Health
UCLA Fielding School of Public Health
UCSF School of Nursing California Childcare Health Program
Union of Concerned Scientists
Virginia Clinicians for Climate Action
WE ACT for Environmental Justice
Women for a Healthy Environment
350 Bay Area

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[i] *"E.P.A. Places the Head of Its Office of Children's Health on Leave," available at* https://www.nytimes.com/2018/09/26/climate/epa-etzel-children-health-program.html.

ED_002399_00029868-00005

Message

From: Konkus, John [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=555471B2BAA6419E8E141696F4577062-KONKUS, JOH]
Sent: 10/16/2018 3:00:42 PM
To: David LaRoss [dlaross@iwpnews.com]
Subject: RE: Ruth Etzel

Thank you.

-----Original Message-----
From: David LaRoss [mailto:dlaross@iwpnews.com]
Sent: Tuesday, October 16, 2018 10:47 AM
To: Konkus, John <konkus.john@epa.gov>
Subject: Re: Ruth Etzel

Thanks -- the story is being updated.

David LaRoss
Inside EPA
(703) 416-8536
On 10/15/2018 6:15 PM, Konkus, John wrote:

Deliberative Process / Ex. 5

>
> John Konkus
> Environmental Protection Agency
> Deputy Associate Administrator
> Office of Public Affairs
>
> John Konkus
> Environmental Protection Agency
> Deputy Associate Administrator
> Office of Public Affairs
>
>> On Oct 15, 2018, at 4:40 PM, Konkus, John <konkus.john@epa.gov> wrote:
>>

Deliberative Process / Ex. 5

>>
>> -----Original Message-----
>> From: David LaRoss [mailto:dlaross@iwpnews.com]
>> Sent: Monday, October 15, 2018 4:39 PM
>> To: Press <Press@epa.gov>
>> Subject: Ruth Etzel
>>
>> Does EPA have a comment on Ruth Etzel's interview on CBS This Morning....this morning?
>>
>> --
>> David LaRoss
>> Inside EPA
>> (703) 416-8536
>>

Message

From: Konkus, John [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=555471B2BAA6419E8E141696F4577062-KONKUS, JOH]
Sent: 10/15/2018 10:16:04 PM
To: Timothy Cama [tcama@thehill.com]
Subject: Re: CBS story on Ruth Etzel

Deliberative Process / Ex. 5

John Konkus
Environmental Protection Agency
Deputy Associate Administrator
Office of Public Affairs

John Konkus
Environmental Protection Agency
Deputy Associate Administrator
Office of Public Affairs

On Oct 15, 2018, at 3:29 PM, Konkus, John <konkus.john@epa.gov> wrote:

> Yes Sir. That's a brand new quote on this btw.
>
> **From:** Timothy Cama [mailto:tcama@thehill.com]
> **Sent:** Monday, October 15, 2018 3:28 PM
> **To:** Konkus, John <konkus.john@epa.gov>
> **Cc:** Press <Press@epa.gov>
> **Subject:** Re: CBS story on Ruth Etzel
>
> Thanks John.
>
> --
> Timothy Cama, Staff writer
> The Hill
> (202) 695-6245
> Secure: timothy.cama@protonmail.com
>
> On Mon, Oct 15, 2018 at 3:18 PM Konkus, John <konkus.john@epa.gov> wrote:
>
> **Deliberative Process / Ex. 5**

Deliberative Process / Ex. 5

From: Timothy Cama [mailto:tcama@thehill.com]
Sent: Monday, October 15, 2018 2:19 PM
To: Press <Press@epa.gov>
Subject: CBS story on Ruth Etzel

Hi folks-

Do you want to weigh in on this CBS story on Ruth Etzel beyond the previous statement? https://www.cbsnews.com/news/epa-childrens-health-official-ruth-etzel-epa-kids-disposable/

Thanks.

--

Timothy Cama, Staff writer

The Hill

(202) 695-6245

Secure: timothy.cama@protonmail.com

Message

From: Konkus, John [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=555471B2BAA6419E8E141696F4577062-KONKUS, JOH]
Sent: 10/15/2018 10:15:36 PM
To: Corbin Hiar [chiar@eenews.net]
Subject: Re: Etzel

Deliberative Process / Ex. 5

John Konkus
Environmental Protection Agency
Deputy Associate Administrator
Office of Public Affairs

John Konkus
Environmental Protection Agency
Deputy Associate Administrator
Office of Public Affairs

On Oct 15, 2018, at 4:36 PM, Konkus, John <konkus.john@epa.gov> wrote:

> Thanks.
>
> ---
>
> **From:** Corbin Hiar [mailto:chiar@eenews.net]
> **Sent:** Monday, October 15, 2018 4:35 PM
> **To:** Konkus, John <konkus.john@epa.gov>
> **Subject:** RE: Etzel
>
> Thanks, we decided to go with a whole new story.
>
> ---
>
> **From:** Konkus, John <konkus.john@epa.gov>
> **Sent:** Monday, October 15, 2018 3:22 PM
> **To:** Corbin Hiar <chiar@eenews.net>; Press <Press@epa.gov>
> **Subject:** RE: Etzel
>
> Corbin,
>
> We would appreciate your updating your article online with the following statement please:
>
> **Deliberative Process / Ex. 5**

Deliberative Process / Ex. 5

Thank you.

From: Corbin Hiar [mailto:chiar@eenews.net]
Sent: Monday, October 15, 2018 11:12 AM
To: Press <Press@epa.gov>
Subject: Etzel

Does EPA have any comment on her CBS interview, specifically her statements about how she was allegedly placed on leave without notice and the administration's lack of commitment to curbing lead poisoning? https://www.cbsnews.com/news/epa-childrens-health-official-ruth-etzel-epa-kids-disposable/

I plan to file a story by 12:30.

Thanks, C

Corbin Hiar
E&E News Reporter
O: 202 446 0438
M: 718 608 5314
T: @corbinhiar

Contact me securely via Signal, WhatsApp or corbin.hiar@protonmail.com

---

E&E NEWS
122 C St NW, 7th Fl; Washington, DC, 20001

The leader in energy and environment news
Greenwire, E&E Daily, E&E News PM, Climatewire, Energywire

Message

From: Dorka, Lilian [Dorka.Lilian@epa.gov]
Sent: 8/28/2018 9:15:01 PM
To: Schwab, Justin [Schwab.Justin@epa.gov]
CC: Leopold, Matt (OGC) [Leopold.Matt@epa.gov]; Minoli, Kevin [Minoli.Kevin@epa.gov]; Albores, Richard [Albores.Richard@epa.gov]; Packard, Elise [Packard.Elise@epa.gov]; Rhines, Dale [rhines.dale@epa.gov]; Temple, Kurt [Temple.Kurt@epa.gov]
Subject: RE: RESPONSE REQUESTED BY TUESDAY 8/28/18: Environmental Conditions in America's Schools

Ok, will do. Thanks!

Lilian Sotolongo Dorka, Director
External Civil Rights Compliance Office
Office of General Counsel
U.S. Environmental Protection Agency
202-564-9649

From: Schwab, Justin
Sent: Tuesday, August 28, 2018 5:03 PM
To: Dorka, Lilian <Dorka.Lilian@epa.gov>
Cc: Leopold, Matt (OGC) <Leopold.Matt@epa.gov>; Minoli, Kevin <Minoli.Kevin@epa.gov>; Albores, Richard <Albores.Richard@epa.gov>; Packard, Elise <Packard.Elise@epa.gov>; Rhines, Dale <rhines.dale@epa.gov>; Temple, Kurt <Temple.Kurt@epa.gov>
Subject: Re: RESPONSE REQUESTED BY TUESDAY 8/28/18: Environmental Conditions in America's Schools

Please send the first section (Activities Already Underway) via SharePoint.

Sent from my iPhone

On Aug 28, 2018, at 4:26 PM, Dorka, Lilian <Dorka.Lilian@epa.gov> wrote:

> Hello Matt, Kevin and Justin,
>
> Just a reminder that all responses are due today. Have you had a chance to review? Thanks very much.
>
> Sent from my iPhone
> Lilian S. Dorka, Director
> External Civil Rights Compliance Office
> Office of General Counsel
> Environmental Protection Agency
> 202-564-9649
>
> On Aug 27, 2018, at 6:45 PM, Dorka, Lilian <Dorka.Lilian@epa.gov> wrote:
>
>> Hello Matt, Kevin and Justin,
>>
>> In his email, Henry Darwin asked for "an inventory of EPA activities already underway, as well as additional activities EPA could pursue to improve health and environmental conditions in America's schools if we received additional authority, resources or reprioritized our work." We think that ECRCO might have important information to contribute - both with respect to activities underway as

well as additional activities where we might be able to contribute to the improvement of the "health and environmental conditions in America's schools." The issue of Risk Communication is also particularly important here as we find that many of the communities impacted by the civil rights complaints we handle are often misinformed or not informed at all about important risk and other environmental information. In this case, ensuring that minority parents and parents of kids with disabilities who might be most impacted by certain school environmental issues, would be of particular interest to ECRCO. The following is for your consideration. If you agree with any of our suggestions, we would be pleased to submit those via the SharePoint Spreadsheet – **DUE Tuesday, 8/28.** Thanks! Lilian

Activities Already Underway

We have at least one pending complaint that raises issues related to environmental conditions affecting schools. In March, 2017, ECRCO accepted for investigation a complaint filed against the Hawaii Department of Agriculture (HDOA) and the Hawaii Agribusiness Development Corporation (ADC). ECRCO is investigating:

> Whether in administering the pesticides program and the leasing and licensing of the state land program the HDOA and/or ADC discriminated on the basis of race and/or national origin (Native Hawaiians) against farm workers and residents of West Kaua'i and Moloka'i, in violation of Title VI of the Civil Rights Act, and EPA's implementing regulation; and
>
> Whether the HDOA and/or ADC is complying with the procedural safeguard provisions in 40 C.F.R. Part 7 Subpart D which require recipients of EPA financial assistance to have specific policies and procedures in place to comply with their non-discrimination obligations.

The complainants (Earthjustice) raised a number of specific issues, some relating to schools, such as:

- HDOA's failure to require or implement protective buffer zones between pesticide use and communities, specifically citing to schools with high numbers of Native Hawaiian students and other vulnerable populations, and also the lack of notification to the public regarding pesticide spraying near communities, including schools.

ECRCO and the recipients, with assistance from our Region 9 office, have been discussing possible informal resolution of the complaint through an Informal Resolution Agreement. The recipients, especially HI Dept. of Ag., have shown interests and have stated that the State's recent legislation actually includes several efforts that addresses the issues raised in the Title VI complaint. Some of those, which HI DOA would propose including in an Informal Resolution Agreement, include the issues related to use of pesticides near schools. For example, HI DOA has stated that per its new legislation, it will (among other things):

- Enforce buffer zones around schools during regular hours;

- Create and post maps on HDOA's website showing school locations and the approximate area subject to buffer zones; and
- Pursue efforts to create a pesticide drift monitoring study at three Hawaii schools, along with a report on the monitoring study due to the legislature at the beginning of 2020.

We are in the process of scheduling a meeting with HI DOE in order to discuss an Informal Resolution Agreement and the use of the information they have provided, such as this above, as part of that agreement in order to address the issues of the complaint. Depending on where we end up with HI DOE and a resolution agreement, EPA may want to highlight some of these measures and the impact on the environmental health of schools, in this case, also focusing on schools with high numbers of Native Hawaiian students.

Additional Activities

1. **Complaint and technical assistance coordination**: ECRCO does receive complaints against school systems (and also against environmental agencies) alleging discrimination against minority students or students with disabilities who have allegedly suffered harm due environmental conditions at or near schools. However, as school systems typically do not receive federal funding from EPA, we can't accept those complaints for investigation, even when they raise environmental issues. Also, when the complaints are filed against environmental agencies that do receive EPA assistance, the actions leading up to the "alleged discriminatory acts" are actually under the purview of the educational systems and we are unable to address those through our recipients. Many of these complaints are also filed with the US Department of ED's Office for Civil Rights. However, we find that if ED accepts those complaints, often they will only accept the "educational" civil rights issues and not the environmental issues. The risk is that some of these school environmental issues that have civil rights implications may be going unaddressed.

   ECRCO proposes we develop an MOU with ED's OCR to work together on complaints filed against School Districts or even against state or local environmental agencies, that raise issues relating to environmental stressors/exposures to environmental risks and schools. There is a natural connection between that issue and the issue of academic performance and even lack of comparable resources (healthy school buildings and infrastructure) for minority students that are issues of focus for ED OCR. The civil rights issues may involve schools that are predominantly minority or affect primarily minority students as well as students with disabilities. We find that there is often an overlap between the population of minority students and certain disabilities that can be particularly affected by certain environmental stressors. This partnership with ED OCR would provide important information to assist this schools initiative and also potentially impact issues are may be unaddressed from a civil rights perspective. To the extent that more extensive assistance might be required for affected schools, school districts or communities, ECRCO could work with and receive assistance from OEJ as well as the environmental justice programs in the regional offices.

2- **Leveraging resources within EPA to ensure a well-informed and holistic approach to school environmental issues and vulnerable communities**: ECRCO is aware of several EPA initiatives that specifically or potentially affect "underserved communities" and the increased sensitivity of these children to environmental stressors and potential for higher exposures to environmental risks. Particularly, we are aware that EPA's Lead Initiative is currently working with OEJ, ORD and OCSPP to identify risk factors that would inform the mapping of lead exposure among children and targeting specific variables, such as schools, and certain populations of children. Haley Hughes, who currently heads that initiative, has suggested that ECRCO's involvement would be beneficial in identifying potential risk factors, from a civil rights perspective, that would assist with that mapping, and that information we might be able to contribute as a result of our complaints (and our partnering with ED's OCR) would bring an important perspective to the lead initiative relative to schools and communities. ECRCO would be pleased to join in that effort.

3- **Empowering parents and communities with environmental information about their schools:** ECRCO proposes the development of a EPA clearinghouse that would be a web-based application where parents and others can identify environmental concerns existing in America's schools. EPA could become a place parents can turn to, to learn about the environmental health of their children's schools. A particular focus could be given to school districts with older infrastructure and/or underserved populations. The data base could start by gathering data that may already exist at the state or local level with respect to "Indoor Air Quality" and schools, the "lead health" of schools in states that have already decided to mandate lead monitoring in schools (such as Arizona – one of the first, and Maryland most recently). Another angle might be to use a portion of the funding appropriated for lead in drinking water in schools (OW) to fund specific grants for the purpose of gathering lead in drinking water data related to schools.

Lilian Sotolongo Dorka, Director
External Civil Rights Compliance Office
Office of General Counsel
U.S. Environmental Protection Agency
202-564-9649

-----Original Message-----
From: Leopold, Matt (OGC)
Sent: Friday, August 24, 2018 5:49 PM
To: Dorka, Lilian <Dorka.Lilian@epa.gov>; Minoli, Kevin <Minoli.Kevin@epa.gov>; Schwab, Justin <Schwab.Justin@epa.gov>
Cc: Albores, Richard <Albores.Richard@epa.gov>; Packard, Elise <Packard.Elise@epa.gov>; Rhines, Dale <rhines.dale@epa.gov>; Temple, Kurt

<Temple.Kurt@epa.gov>
Subject: RE: RESPONSE REQUESTED: Environmental Conditions in America's Schools

Hi Lilian, yes feel free to submit your ideas by Monday COB.

Thanks, Matt

-----Original Message-----
From: Dorka, Lilian
Sent: Friday, August 24, 2018 2:57 PM
To: Leopold, Matt (OGC) <Leopold.Matt@epa.gov>; Minoli, Kevin <Minoli.Kevin@epa.gov>; Schwab, Justin <Schwab.Justin@epa.gov>
Cc: Albores, Richard <Albores.Richard@epa.gov>; Packard, Elise <Packard.Elise@epa.gov>; Rhines, Dale <rhines.dale@epa.gov>; Temple, Kurt <Temple.Kurt@epa.gov>
Subject: RE: RESPONSE REQUESTED: Environmental Conditions in America's Schools

Hi Matt, Kevin, and Justin,

ECRCO is very interested in this policy initiative. We would like to submit some proposed activities for your consideration. The issue of environmental health impacts on minority students - as well as students with disabilities (as a result of environmental hazards near or at schools) has come up in several of our complaints. We are working on some ideas and would like to run them by you.

The "spreadsheet" input is due by COB Tuesday. OK to submit our thoughts to Kevin and Justin by COB Monday?
Thanks very much!

Lilian

Lilian Sotolongo Dorka, Director
External Civil Rights Compliance Office
Office of General Counsel
U.S. Environmental Protection Agency
202-564-9649

-----Original Message-----
From: Leopold, Matt (OGC)
Sent: Friday, August 24, 2018 1:14 PM
To: Albores, Richard <Albores.Richard@epa.gov>; Blake, Wendy <Blake.Wendy@epa.gov>; Briskin, Jeanne <Briskin.Jeanne@epa.gov>; Dorka, Lilian <Dorka.Lilian@epa.gov>; Epp, Timothy <Epp.Timothy@epa.gov>; Fugh, Justina <Fugh.Justina@epa.gov>; Koslow, Karin <Koslow.Karin@epa.gov>; Lattimore, Kraig <lattimore.kraig@epa.gov>; Lee, Terry <lee.terry@epa.gov>; Lewis, Jen <Lewis.Jen@epa.gov>; Michaud, John <Michaud.John@epa.gov>; Minoli, Kevin <Minoli.Kevin@epa.gov>; Neugeboren, Steven <Neugeboren.Steven@epa.gov>; Packard, Elise <Packard.Elise@epa.gov>; Redden, Kenneth <Redden.Kenneth@epa.gov>; Rhines, Dale <rhines.dale@epa.gov>; Schmidt, Lorie <Schmidt.Lorie@epa.gov>; Siciliano, CarolAnn <Siciliano.CarolAnn@epa.gov>; Srinivasan, Gautam <Srinivasan.Gautam@epa.gov>; Youngblood, Charlotte <Youngblood.Charlotte@epa.gov>; Zenick, Elliott <Zenick.Elliott@epa.gov>

Cc: Schwab, Justin <Schwab.Justin@epa.gov>; Fotouhi, David <Fotouhi.David@epa.gov>
Subject: FW: RESPONSE REQUESTED: Environmental Conditions in America's Schools

Hello All,

I don't know if OGC has anything specific to contribute to this policy initiative, but I wanted to pass it along for awareness.

Thank you, Matt

Matthew Z. Leopold
General Counsel
U.S. Environmental Protection Agency
(202) 564-8040

-----Original Message-----
From: Darwin, Henry
Sent: Friday, August 24, 2018 10:45 AM
To: Edwards, Jonathan <Edwards.Jonathan@epa.gov>; Winchester, Erik <Winchester.Erik@epa.gov>; Ellis, Frank <Ellis.Frank@epa.gov>; Mooney, Charlotte <Mooney.Charlotte@epa.gov>; Swetland-Johnson, Karen <Swetland-Johnson.Karen@epa.gov>; Grossarth, Shari <Grossarth.Shari@epa.gov>; Dalbey, Matthew <Dalbey.Matthew@epa.gov>; Etzel, Ruth <Etzel.Ruth@epa.gov>; Shiffman, Cari <Shiffman.Cari@epa.gov>; Davis, CatherineM <Davis.CatherineM@epa.gov>; Hughes, Hayley <hughes.hayley@epa.gov>
Cc: Fonseca, Silvina <Fonseca.Silvina@epa.gov>; Johnson, Laura-S <Johnson.Laura-S@epa.gov>; Sauerhage, Maggie <Sauerhage.Maggie@epa.gov>; Burton, Tamika <burton.tamika@epa.gov>; Pritchard, Eileen <Pritchard.Eileen@epa.gov>; Grantham, Nancy <Grantham.Nancy@epa.gov>; Leadership_Assistant_Administators <Leadership_Assistant_Administators@epa.gov>; Leadership_Deputy_Assistant_Administrators <Leadership_Deputy_Assistant_Administrators@epa.gov>; Molina, Michael <molina.michael@epa.gov>; DeBell, Kevin <debell.kevin@epa.gov>
Subject: RESPONSE REQUESTED: Environmental Conditions in America's Schools

Hello all:
Acting Administrator Wheeler has a very strong interest in improving the environmental health of America's schools. This week, he requested an inventory of EPA activities already underway, as well as additional activities EPA could pursue to improve health and environmental conditions in America's schools if we received additional authority, resources or reprioritized our work. The Acting Administrator has asked me to assist him in this effort.
EPA has recognized and communicated the link between school environments and the health and academic success of children (https://www.epa.gov/schools) Environmental hazards in schools can negatively impact the health of students and staff as well as attendance, concentration, and academic performance. The increased sensitivity of children to environmental stressors and potential for higher exposures to environmental risks among underserved communities adds additional urgency to this challenge.
We will move quickly to provide Acting Administrator Wheeler with options for improving environmental conditions in our schools. As a first step toward to

accomplishing this, I request that you please complete this spreadsheet <https://usepa.sharepoint.com/:x:/r/sites/OA_Work/measures_reporting/_layouts/15/Doc.aspx?sourcedoc=%7BE7E7771A-FC7D-4DF3-A28B-D5894A38E623%7D&file=2018%2008%2024%20Schools%20Initiative%20Inventory.xlsx&action=default&mobileredirect=true> of current and potential activities by COB Tuesday, August 28. We will review this inventory to identify the most promising options for the agency. We will then confer with you to determine our collective path forward. I assure you that we will carefully consider your perspectives before making final decisions.

If you have any questions about this request, please contact Kevin DeBell (debell.kevin@epa.gov <mailto:debell.kevin@epa.gov> , 202 566 1931). Thank you very much for your assistance and effort.

Henry

Message

From: Coomber, Robert [coomber.robert@epa.gov]
Sent: 10/16/2018 2:04:03 PM
To: Meighan, Alexandra [Meighan.Alexandra@epa.gov]; Patterson, Nicole [Patterson.Nicole@epa.gov]
Subject: RE: Introduction

I can attend.

Robert D. Coomber
Senior Labor Attorney
Labor and Employee Relations Division
Desk Phone: (202) 564-0955
Cell Phone: Ex. 6
coomber.robert@epa.gov

From: Meighan, Alexandra
Sent: Tuesday, October 16, 2018 10:01 AM
To: Patterson, Nicole <Patterson.Nicole@epa.gov>; Coomber, Robert <coomber.robert@epa.gov>
Subject: Fwd: Introduction

If you are not free, can Bob attend?
Looks like there are some procedural ?s

Sent from my iPhone

Begin forwarded message:

> **From:** "Meighan, Alexandra" <Meighan.Alexandra@epa.gov>
> **Date:** October 16, 2018 at 9:57:03 AM EDT
> **To:** "Patterson, Nicole" <Patterson.Nicole@epa.gov>
> **Subject: Fwd: Introduction**
>
> Nicole,
> Are you free for a call at 12:15 with Liz today?
> Thanks
> Sent from my iPhone
>
> Begin forwarded message:
>
> > **From:** "Whitcher, Elizabeth" <Whitcher.Elizabeth@epa.gov>
> > **Date:** October 16, 2018 at 9:52:13 AM EDT
> > **To:** "Meighan, Alexandra" <Meighan.Alexandra@epa.gov>
> > **Cc:** "Patterson, Nicole" <Patterson.Nicole@epa.gov>
> > **Subject: Re: Introduction**
> >
> > Works for me. Talk to you soon, and thank you.

From: Meighan, Alexandra
Sent: Tuesday, October 16, 2018 9:46 AM
To: Whitcher, Elizabeth
Cc: Patterson, Nicole
Subject: Re: Introduction

Hi there,
I am out of the office this week at a training but could talk today between noon and one if that works for you guys.
Just let me know.
Thanks,
Ali

Sent from my iPhone

On Oct 16, 2018, at 9:09 AM, Whitcher, Elizabeth <Whitcher.Elizabeth@epa.gov> wrote:

Ali and Nicole,

Attorney Client / Ex. 5

Attorney Client / Ex. 5

Thanks,

Liz

From: Catherine Allen <catherine.allen@ao-group.com>
Sent: Tuesday, October 16, 2018 8:11 AM
To: Whitcher, Elizabeth
Subject: Re: Introduction

Good morning Liz,

I am happy to speak with you by phone and Thursday at 2:00pm will work best for me.

I would however, like to inquire about this process. I understand you are conducting a fact finding. Would you mind explaining

how the information you gather will be used? How will the information treated? Is it advisable that I have my legal counsel on the line as well?

Thank you.
Catherine

Catherine Allen • Allen Offterdinger Group
Co-Founder & CEO

p 202.255.3080 <Outlook-ogpe1f0a.png>
e catherine.allen@ao-group.com
w www.ao-group.com

From: Whitcher, Elizabeth <Whitcher.Elizabeth@epa.gov>
Sent: Monday, October 15, 2018 9:27 PM
To: Catherine Allen
Cc: Viney, Barbara
Subject: Re: Introduction

Hello Catherine,

I was wondering if you may have some time this week to speak with me regarding your climate assessment in OCHP and subsequent work with Dr. Etzel and other managers. I am available tomorrow morning or Thursday afternoon between 2 and 3; please let me know if that would work.

Thanks very much for your time,

Liz Whitcher

From: Viney, Barbara
Sent: Friday, October 12, 2018 11:18 AM
To: Catherine Allen (catherine.allen@ao-group.com); Whitcher, Elizabeth
Subject: Introduction

Catherine,

Please allow me to introduce you to Elizabeth who is the fact-finder regarding OCHP. She would like to interview you.

Regards,

Barb.

Barbara Viney

US Environmental Protection Agency

202-564-7972 **<Outlook-kmvoi5u1.png><Outlook-n4kcl512.png>**

Conflict Management Specialist **https://intranet.epa.gov/ohr/benefits/workplacesolutions/**

Employee Counseling and Assistance **https://intranet.epa.gov/ohr/benefits/eap/index.htm**

Violence Prevention Coordinator

Watch this 3 minute video to learn more about mediation and facilitation at EPA.

https://workplace.epa.gov/facilitation-mediation/

William Jefferson Clinton North

Mail Code 3602A - Suite 1402 S

1200 Pennsylvania Ave., NW

Washington, DC 20460

<image001.gif>

Message

From: Walker, Denise [Walker.Denise@epa.gov]
Sent: 10/1/2018 2:30:42 PM
To: OGC NFO [OGC-NFO@epa.gov]; AO FOIA Centralization [AO_FOIA_Centralization@epa.gov]
CC: Packard, Elise [Packard.Elise@epa.gov]
Subject: 2018-10-01 Daily News

TSCA Prioritization, Tech Support and ID Theft,

Something Positive:

Greenwire: Greens tap beer in defense of Obama's mining ban
Conservation groups will roll out the barrels today to support their campaign for the Obama-era ban on uranium mining near the Grand Canyon. "Conservation Kolsch" from Grand Canyon Brewing Co. is aimed at rallying support for the 2012 move by the Obama administration that blocked new uranium development over the opposition of industry.

Reg Reform:

E&E: 'Secret science' rule on the agenda for hearing
Some five months after then-Administrator Pruitt unleashed an uproar with a proposal to restrict the agency's use of scientific research, the locus of the debate will return this week to where it began: Capitol Hill. On Wednesday, a Senate Environment and Public Works subcommittee will hold a hearing billed as providing oversight of "implementation of sound and transparent science in regulation." Witnesses will include two academics who have written favorably on the proposed rule as well as the head of a scientific organization who is vehemently opposed

InsideEPA: EPA Counsel Seeks To Ensure 'Durable, Defensible' Deregulatory Efforts
Even as the Trump EPA faces a mixed record defending its deregulatory agenda, EPA General Counsel Matt Leopold says he wants to ensure that rule changes implementing the administration's rollbacks are “durable and defensible” so that its policies will endure, arguing the policies will save billions while also reducing pollution.

EPA Regs/Air:

Politico ME: EPA TO GET EARFUL ON REPLACEMENT CARBON RULE
EPA is hosting its one and only public hearing today on its proposed replacement carbon rule for power plants, aka the Affordable Clean Energy rule. (In contrast, the Obama administration held four two-day hearings on its Clean Power Plan proposal in Washington, Pittsburgh, Atlanta and Denver.) Among the industry names on the speakers list are National Rural Electric Cooperative Association chief Jim Matheson and representatives from the American Petroleum Institute, Murray Energy and the National Mining Association. But the overwhelming number of voices, are environmental and public health advocates. EPA has said it plans to finish this rule in the "first part" of 2019, although it's not clear what that means. The agency will also have to ensure it responds to the myriad comments environmentalists are expected to submit.

NY Times: Trump Administration Prepares a Major Weakening of Mercury Emissions Rules
The proposal is designed to provide legal justification for weakening not only the rules on mercury emissions from coal-burning power plants, but also other pollution controls as well.
Related from the WaPo: In rollback of mercury rule, Trump could revamp how government values human health

EPA Regs/Water:

BNA: Pentagon on a Mission To See if Enviro-Friendly Fire Foam Works
The Department of Defense will soon pick researchers to help it decide whether fluorine-free firefighting foams can meet the military’s performance requirements.

EPA Regs/Chemicals:

*InsideEPA: Lacking Consensus, EPA Offers Split Approach For TSCA Prioritization Plan
Faced with a congressional deadline under the revised Toxic Substances Control Act (TSCA), EPA has released its plan for how it will prioritize chemicals for possible assessment and regulation, though limited stakeholder consensus appears to have led the agency to pursue a split approach for short- and long-term efforts.

Related from BNA: Worker Exposure Considered as EPA Picks Chemicals to Spotlight

EPA Regs/Land:

BNA: Pfizer Subsidiary, EPA Finalize $74M Plan to Clean Up New Jersey Toxic Site
A $74 million cleanup plan for a former New Jersey manufacturing site includes removing 44,000 tons of hazardous waste and treating 2.3 million gallons of contaminated liquid.

Climate:

BNA: Scientists Weigh Call for Much Deeper Cuts to Coal Pollution
A panel of the world's top climate scientists is preparing to recommend much deeper cuts in fossil-fuel pollution than currently suggested as a pathway to stave off a dangerous increase in global temperatures.

Climatewire: 'Climate Barbie' won't be a 'shrinking violet'
Catherine McKenna is the environment and climate change minister for Canada. She's one of the foremost climate policy experts in the world and has been instrumental in helping craft her country's contributions to global climate accords. But she has become a focal point of online harassment by those who contradict established climate science. Because she is a woman with blond hair, her critics have nicknamed her "Climate Barbie" and have mocked her every time she speaks in public or writes a tweet.

Budget/Workforce:

*Greenwire: Employees at risk of identity theft — IG
The EPA inspector general today warned that the agency isn't protecting employees' personal information. EPA's internal watchdog issued a management alert indicating that the agency's incident tracking system on its computer network lacks privacy and security controls. EPA employees use the system to record technical issues like resetting a user's password or removing a computer virus. Help desk technicians respond to requests for help.

People/Agency:

Politico ME: EPA: ETZEL OUSTED OVER 'ALLEGATIONS'
The EPA's Office of Children's Health Protection director, Ruth Etzel, a pediatrician and public health specialist, was removed from her post Tuesday, the New York Times first reported last week. But on Friday, EPA followed up with us, saying she "was placed on leave to give the Agency the opportunity to review allegations about the Director's leadership of the office," according to a statement from EPA Chief of Staff Ryan Jackson. Etzel had headed the children's health office since 2015. Today is Children's Health Day. EPA is holding an event at agency headquarters to celebrate, sans children's health director. Acting Administrator Andrew Wheeler, agency staff, the National Environmental Education Foundation, Diesel Technology Forum and the National School Transportation Association are slated to attend. The shindig starts around 11:40 a.m.

Greenwire: Pruitt's gone with investigators on his trail
Multiple investigations are still pending against former EPA Administrator Scott Pruitt, involving everything from his pricey travel habits to his Capitol Hill condo rental. They're not going away — and they could get worse.

Climatewire: Gina McCarthy: These are 'crazy ass' times
"Honestly, this how I technically refer to the days that we're living in today. They are a technical term. They're crazy ass," McCarthy told an audience in New York on Friday afternoon. "Every day, I turn on the TV or pick up or open up the Times or something, and I say, 'Oh, my God, please don't let anything be in there.' I don't want any news of any kind." McCarthy hammered the new administration for its treatment of her former employees. She accused her

successor, Scott Pruitt, of disrespecting career staff at EPA and shunning their input as he rolled back regulations — several of which she helped craft during the Obama administration.

This Week in Congress:

WEDNESDAY, OCTOBER 03, 2018
Senate
Hearing on science in EPA regulation
Environment and Public Works Subcommittee on Superfund, Waste Management and Regulatory Insight
2:15 PM EDT, 406 Dirksen
Markup of Navajo water rights legislation
Indian Affairs
2:30 PM EDT, 628 Dirksen

Brett Van Akkeren
Policy and Regulatory Analysis Division
USEPA
202-566-2865

Message

From: Walker, Denise [Walker.Denise@epa.gov]
Sent: 9/27/2018 3:26:17 PM
To: OGC NFO [OGC-NFO@epa.gov]; AO FOIA Centralization [AO_FOIA_Centralization@epa.gov]
CC: Packard, Elise [Packard.Elise@epa.gov]
Subject: 2018-09-27 Daily News

Fuel Efficiency Critique, CWA Sec 301 concerns, PFAS, Childrens Health,

Something Positive:

WaPo: — What has four wheels and crawls?
A wild Eastern box turtle that was found in a park near the Maryland Zoo in Baltimore was given a Lego-made wheelchair to help heal a fracture on the underbelly of its shell

Reg Reform:

InsideEPA: Industry Seeks To Ease EPA Rules To Address Ocean Plastic Pollution
The chemical industry is calling for policymakers to ease EPA's rules to address the growing problem of ocean plastics, including scaling back hazardous waste permitting requirements for thermochemical and gasification processes that convert plastics into fuels and chemicals and to grant renewable fuel credits to fuels derived from plastic waste.

EPA Regs/Air:

*InsideEPA: Expecting Court Reversal, Former EPA Staffer Blasts Auto GHG Rollback Plan
A former EPA employee with a decade of technical experience on vehicle greenhouse gas standards is calling the analysis supporting the Trump administration's proposed rollback of vehicle GHG and fuel economy standards "the most biased and dishonest technical analysis I have ever seen during my 40-year career," predicting that the plan will fail in court if finalized.

Related from Greenwire: EPA watchdog urges more review of state inspection programs
Related from Inside EPA: Automakers Vague About Preferred Stringency Of Vehicle GHG Standards

InsideEPA: OTC States Reject EPA Projection Of 'Downward Trend' In Ozone Emissions
Northeastern and Mid-Atlantic air regulators in the Ozone Transport Commission (OTC) are pushing back against EPA's projection of a "downward trend" in ozone emissions, saying it is inconsistent with their own modeling data and a trend of worsening ozone levels that could frustrate OTC states' ability to attain federal ozone standards.

GreenWire: Trump's corn-state pledge puts Wheeler in a jam
President Trump is expected to follow through soon on an ethanol promise to Corn Belt states, leaving acting EPA chief Andrew Wheeler to broker a politically risky deal with the oil industry.

InsideEPA: EPA Inks First Settlement With Maker Of Aftermarket Vehicle 'Defeat Devices'
EPA has reached a proposed settlement with the manufacturer of custom tuning kits for cars and trucks to address emissions control "defeat devices," the first time that the agency has sought to settle such claims with a company that makes aftermarket products, rather than a direct manufacturer of vehicles and engines.

E&E: Ill. Dems seek answers on EPA website document removal
Three Illinois lawmakers are pressing EPA to explain why a document accompanying a report on air quality in a Chicago suburb was "abruptly removed" from an agency website.

EPA Regs/Water:

*InsideEPA: States Renew Fears Over CWA 401 Changes, Dimming Senate Bill's Prospects

Western governors and other state officials are reiterating their opposition to legislation that would curtail their authority to limit federal actions that could violate state water quality standards, dimming prospects that senators who are reaching out to states to address their concerns will be able to reach a deal on the issue anytime soon.

E&E PM: WOTUS opponents try again for nationwide freeze
Opponents of the Obama-era Clean Water Rule are urging a federal court to block implementation across the country. The American Farm Bureau Federation and other groups today asked the U.S. District Court for the Southern District of Georgia to expand a previous injunction into a nationwide freeze of the regulation, also known as the Waters of the U.S., or WOTUS, rule.

InsideEPA: EPA Asks Judge To Ignore Ruling Limiting Stormwater Permit Discretion
EPA is asking a federal district court judge in a pending Clean Water Act (CWA) stormwater permit suit to ignore another judge's novel ruling that ordered the agency to expand its use of such permits, claiming the decision does not acknowledge regulators' expanded discretion on stormwater permitting compared to other CWA programs.

EPA Regs/Chemicals:

*Politico ME: The scale of [PFAS] contamination is still coming to light
On Tuesday, the Union of Concerned Scientists released an analysis that found the scope of the problem stemming from military bases that used firefighting foam containing perfluorinated compounds is likely worse than previously thought. The group reanalyzed data from the Department of Defense and Northeastern University's Social Science Environmental Health Research Institute using the lower safety thresholds recommended in a long-stalled Department of Health and Human Services report. The findings: 90 percent of the 131 military sites analyzed had PFAS concentrations at least 10 times higher than the threshold set by HHS, and nearly two-thirds had concentrations at least 100 times higher than the threshold.

> Related from Politico ME: SAY YES TO MICHIGAN
> EPA's PFAS tour wasn't over after all, an agency official told lawmakers Wednesday. Peter Grevatt, the Water Office official leading EPA's work on the nonstick chemicals told a Senate Government Affairs subpanel that the agency will head to Michigan next week for stakeholder meetings.
> Related from BNA: Senate Democrats Urge EPA to Regulate Fluorochemicals
> Related from E&E: EPA promises lawmakers action on PFAS

E&E PM: Health groups seek to stop asbestos 'wild west'
Environmental and public health groups announced today they are petitioning EPA to strengthen its regulation of asbestos and make more information about it available to the public. The petition by the Asbestos Disease Awareness Organization and other groups calls for amendments to the Toxic Substances Control Act's Chemical Data Reporting rule.

> Related from BNA: Groups Petition EPA to Force Companies to Share Asbestos Use Data

Chemical Watch: Industry flags up concern with TSCA chlorinated paraffin Snurs
Five-year notification requirements could bring downstream uncertainty

EPA Regs/Land:

WaPo: EPA orders extensive cleanup of radioactive waste site near St. Louis
The Environmental Protection Agency on Thursday ordered an aggressive cleanup of a long-controversial landfill contaminated with radioactive waste near St. Louis, delighting community activists.

Climate:

Greenwire: We can and should and will do more' on emissions: Murkowski
Senate Energy and Natural Resources Chairwoman Lisa Murkowski (R-Alaska) said Congress will do more to reduce U.S. greenhouse gas emissions, even as the Trump administration spurns climate science and rolls back regulations on planet-warming gases.

WaPo: Climate change is destroying our national parks at an alarming rate, study finds

Imagine Joshua Tree without Joshua trees. Or Glacier National Park without glaciers.

Budget/Workforce:

Gov Exec: Lawmakers Send Shutdown-Averting Spending Bill to Trump's Desk
The president has signaled he will sign it despite earlier criticism.

Politico ME: JUDGMENT DAY NEARS
Lawmakers will know by Thursday whether negotiators will be able to close out a deal on the four-bill spending package, H.R. 6147 (115), that sets funding levels for Interior-Environment, Senate Appropriations Chairman Richard Shelby told reporters. "I think we can wind this up if the House will do it. We think we've gotten pretty close. Maybe we are, maybe we're not. We're not sure yet. But we should know by Thursday," Shelby said. In addition, Shelby said he planned to speak with House Appropriations Chairman Rodney Frelinghuysen and Speaker Paul Ryan on Tuesday to discuss possible paths forward on the minibus.

Related from E&E: Shutdown averted, but Interior and EPA still in limbo

Gov Exec: OPM Announces Lowest Federal Employee Health Care Premium Increase in Two Decades
Cost for FEHBP enrollees will increase by an average of 1.5 percent next year, significantly slower than previous years.

People/Agency:

*Politico ME: CHILDREN'S HEALTH OFFICE ON THE ROPES?
The ousted head of EPA's Office of Children's Health Protection wrote in an email to the leader of a nonprofit obtained by BuzzFeed News that "I appear to be the 'fall guy' for their plan to 'disappear' the office of children's health." Ruth Etzel, a pediatrician and epidemiologist, was put on administrative leave late Tuesday, for reasons she said in the email were not disciplinary. "It had been apparent for about 5 months that the top EPA leaders were conducting 'guerrilla warfare' against me as the leader of OCHP, but now it's clearly official," Etzel wrote, according to BuzzFeed. An EPA reorganization chart recently shared with regional offices eliminated regional children's health coordinator positions - a move that some public health advocates saw as an opening gambit in a bid to shut down the office. The office, which was created under the Clinton administration, and has the right to formally weigh in on all of the major regulatory actions taken by the agency, including Trump administration rollbacks that EPA's experts estimate will harm human health.

Related from BNA: Children's Health Chief Put on Leave, Says EPA Seeks to 'Cause Chaos'
Related from Greenwire: Children's health director abruptly put on leave
Related from InsideEPA: EPA Faces 'Firestorm' After Sudden Removal Of Children's Health Chief

BNA: Trump's EPA Makeover Could Put Regional Offices on Shorter Leash
The EPA's regional offices could see structural changes by year's end, but the trickle-down effects—on enforcement, staff levels, and leadership—are already raising alarms among current and former workers.

Brett Van Akkeren
Policy and Regulatory Analysis Division
USEPA
202-566-2865

Message

From: Grantham, Nancy [Grantham.Nancy@epa.gov]
Sent: 10/9/2018 10:40:23 PM
To: Vizian, Donna [Vizian.Donna@epa.gov]
Subject: RE: Background on OCHP and Dr. Firestone bio

Much better . .tanks much

Nancy Grantham
Office of Public Affairs
US Environmental Protection Agency
202-564-6879 (desk)
Ex. 6 (mobile)

From: Vizian, Donna
Sent: Tuesday, October 09, 2018 6:39 PM
To: Grantham, Nancy <Grantham.Nancy@epa.gov>
Subject: RE: Background on OCHP and Dr. Firestone bio

See what you think

From: Grantham, Nancy
Sent: Tuesday, October 09, 2018 6:17 PM
To: Vizian, Donna <Vizian.Donna@epa.gov>
Cc: Grantham, Nancy <Grantham.Nancy@epa.gov>
Subject: FW: Background on OCHP and Dr. Firestone bio

Donna,

Can you take a look at the answer to the first question and let me know if you have comments. Thanks ng

Nancy Grantham
Office of Public Affairs
US Environmental Protection Agency
202-564-6879 (desk)
Ex. 6 (mobile)

From: Grantham, Nancy
Sent: Tuesday, October 09, 2018 6:02 PM
To: Grantham, Nancy <Grantham.Nancy@epa.gov>
Subject: FW: Background on OCHP and Dr. Firestone bio

From: Ariel Wittenberg [mailto:awittenberg@eenews.net]
Sent: Tuesday, October 09, 2018 12:20 PM
To: Grantham, Nancy <Grantham.Nancy@epa.gov>; Konkus, John <konkus.john@epa.gov>
Cc: Press <Press@epa.gov>
Subject: RE: Background on OCHP and Dr. Firestone bio

Hi Nancy and John,

Thanks for setting up the interview with Michael Firestone today. I have a few questions for the press office below. My deadline is 11 a.m. tomorrow.

- We noticed that the organizational chart for EPA's regional realignment included with Admin. Wheeler's Sept. 6 email did not include children's health in the immediate office area, but the organizational chart posted on the intranet site linked in Henry Darwin's Oct. 3 email does include children's health. What changed? Why did EPA decide to include children's health in the later organizational chart?

Deliberative Process / Ex. 5

- I also saw that for the past two fiscal years, the Trump administration has proposed significantly decreasing OCHP's budget (from about $5.4 million to $1.4 million), and thirding its staff (from 15.4 FTEs to 4.9 FTEs). I will be mentioning that in the article and wanted to give you the opportunity to respond as there have been questions about OCHP's
future.

Deliberative Process / Ex. 5

- What is the status of the federal lead strategy? What is the hold up? I know OCHP and Dr. Etzel had been working on it as part of the President's Task Force on Environmental Health Risks and Safety Risks to Children.

Deliberative Process / Ex. 5

<u>Efforts to Reduce Exposures to Lead</u>

- In honor of Children's Health Month during the month of October, EPA announced the availability of nearly $30 million to support safe drinking water and cleaner air.
  - Availability of $20 million available for states and tribes to test for lead in drinking water at schools and childcare facilities.
  - Approximately $9 million in rebates to public school bus fleet owners to help them replace older school buses with cleaner, more modern vehicles.

- EPA recently announced the availability of $5.5 billion in loans through the Water Infrastructure Finance and Innovation Act (WIFIA) program, which could leverage over $11 billion in water infrastructure projects including those that may reduce exposure to lead.
- In support of critical research efforts, EPA awarded nearly $4 million in grant funding for researching strategies to detect and control lead exposure in drinking water, and identifying opportunities to mitigate lead exposure from drinking water including at home and community levels, especially among children and pregnant women.
- EPA is working on revisions to update the Lead and Copper Rule based on input received from our state, local and tribal partners as well as the best available peer-reviewed science to ensure the rule reflects the best ways to improve public health protection.
- In June 2018, EPA proposed to change the dust-lead hazard standards from 40 µg/ft2 and 250 µg/ft2 to 10 µg/ft2 and 100 µg/ft2 on floors and window sills, respectively. Standards apply to most pre-1978 housing and child-occupied facilities, such as day care centers and kindergarten facilities.
- EPA will continue to provide firm and individual certifications for safe work practices for lead-based paint abatement and renovation and repair efforts.

- Is there any update regarding Ruth Etzel's status? How long is her administrative leave expected to last? At what point would EPA look to replace her permanently?

"Although EPA does not customarily comment on personnel matters, due to circulating misinformation, the Director of EPA's Office of Children's Health Protection was placed on leave to give the Agency the opportunity to review allegations about the Director's leadership of the office." **– EPA Chief of Staff, Ryan Jackson**

- I've talked to a number of people who have worked closely with OCHP and they all sing Michael Firestone's praises. But a few have also said they believe a pediatrician would be better equipped to run OCHP. Do you have any response to that criticism?

Please see Henry Darwin's note below to the members of the Children's Health Advisory Committee.

From: Darwin, Henry
Sent: Thursday, September 27, 2018 1:53 PM
To: caroline@ceh.org; deanna.scher@state.mn.us; ebraff-guajardo@sierrahealth.org; joel.forman@mssm.edu; grediamd@gmail.com; robertsj@musc.edu; jcordero@uga.edu; Froelicher.jm@pg.com; lori.byron@gmail.com; jlowry@cmh.edu; mhowett@umass.edu; ucsfpehsumiller@gmail.com; mlittle@health.nyc.gov; Barbara.Morrissey@doh.wa.gov; olga@ewg.org; gregory.a.ornella@sherwin.com; pinar.kodaman@yale.edu; bratspies@mail.law.cuny.edu; rubin.patterson@howard.edu; stephenaowens@gmail.com; tneltner@edf.org
Cc: Hackel, Angela <Hackel.Angela@epa.gov>
Subject: Office of Children's Health Protection

Children's Health Protection Advisory Committee:

First, I want to thank you for your efforts to inform EPA on important issues related to children's health. Second, I would like clear up any misunderstandings regarding EPA's ongoing commitment to the protection of children's health. Despite of what you may have heard in the media or from people who are unaware of what is actually going on, EPA remains fully committed to protect children's health and will soon announce several initiatives. Dr. Etzel was not placed on leave to diminish EPA's Children's Health Program. Children's Health is an extremely important program for the Agency and therefore EPA is seeking a strong leader to move the program forward.

EPA recognizes one of the most important things we can do to protect our children's future is to make sure they grow up in healthy environments. So, I want to reaffirm one of our top priorities at EPA continues to be the protection of children where they live, learn, and play. As you know, EPA has many initiatives currently underway via critical

partnerships to protect children's health, including reducing lead exposures, promoting health environments, reducing asthma triggers, and addressing harmful chemical exposures. On October 1st, EPA will release a booklet highlighting these initiatives.

EPA through its Office of Children's Health Protection and in coordination with our program offices will continue to address the unique vulnerabilities of children. We are very proud of the ongoing work and understand there is a lot more to be done. As such, EPA appreciates your efforts to inform existing and future children's health initiatives.

Thank you for your commitment to the protection of children's health. We look forward to seeing you at the CHPAC meeting on October 11.

If you have any questions, please contact Angela Hackel, the designated federal official for CHPAC, at <mailto:hackel.angela@epa.gov> hackel.angela@epa.gov.

Sincerely,

Henry Darwin
Acting Deputy Administrator and Chief of Operations
United States Environmental Protection Agency

Thanks again,

Ariel

Ariel Wittenberg
E&E News reporter
awittenberg@eenews.net
202-737-4557
@arielwittenberg

E&E NEWS
122 C Street NW 7th Floor Washington, DC 20001
www.eenews.net | @EENewsUpdates
Energywire, Climatewire, Greenwire, E&E Daily, E&E News PM, E&ETV

From: Grantham, Nancy <Grantham.Nancy@epa.gov>
Sent: Tuesday, October 09, 2018 9:06 AM
To: Konkus, John <konkus.john@epa.gov>
Cc: Ariel Wittenberg <awittenberg@eenews.net>
Subject: Re: Background on OCHP and Dr. Firestone bio

Hi Ariel - I will meet you at the north entrance at 11 am. Thanks

Sent from my iPhone

On Oct 9, 2018, at 9:01 AM, Konkus, John <konkus.john@epa.gov> wrote:

> In person will be fine. Nancy will be in touch.

John Konkus
Environmental Protection Agency
Deputy Associate Administrator
Office of Public Affairs

On Oct 9, 2018, at 8:48 AM, Ariel Wittenberg <awittenberg@eenews.net> wrote:

> I thought this was in person, which is my strong preference. As we discussed Friday, I was planning to come to the north entrance at 11 am. Nancy, please let me know if that still works.
>
> I'll be on my cell this morning— Ex. 6
>
> Ariel
>
> Ariel Wittenberg
> Reporter, E&E News
> 202-737-4557
> awittenberg@eenews.net
>
> Sent from my iPhone
>
> On Oct 9, 2018, at 8:13 AM, Konkus, John <konkus.john@epa.gov> wrote:
>
>> Ariel: I'm looping you in the Nancy who will take it from here. This can be in person at EPA HQ or over the phone.
>>
>> Thank you,
>>
>> John
>>
>> ---
>>
>> **From:** Ariel Wittenberg [mailto:awittenberg@eenews.net]
>> **Sent:** Friday, October 5, 2018 3:47 PM
>> **To:** Konkus, John <konkus.john@epa.gov>
>> **Subject:** RE: Background on OCHP and Dr. Firestone bio
>>
>> Thanks!
>>
>> Ariel
>>
>> ---
>>
>> **From:** Konkus, John <konkus.john@epa.gov>
>> **Sent:** Friday, October 05, 2018 3:41 PM
>> **To:** Ariel Wittenberg <awittenberg@eenews.net>
>> **Subject:** Background on OCHP and Dr. Firestone bio
>>
>>> Dr. Firestone's (bio attached) regulatory work in the past has included:
>>>
>>> ? Certification & Training (C&T) of Pesticide Applicators [FIFRA]
>>> ? Pesticide Worker Protection Regulations
>>> ? 2008 Lead NAAQS

Ongoing regulations he's recently worked on include:

- National Primary Drinking Water Regulations: Regulation of Perchlorate
- Endangerment Finding for Lead Emissions from Piston-Engine Aircraft Using Leaded Aviation Gasoline
- Certification of Pesticide Applicators (CPA) Rule; Reconsideration of the Minimum Age Requirements
- Agricultural Worker Protection Standard (WPS); Reconsideration of Several Requirements Incl. Rescinding Childhood Age Restrictions

Regulatory workgroups other OCHP staff are currently participating on other include:

- "Lead; Renovation, Repair, and Painting Program for Public and Commercial Buildings [TSCA Section 402(c)(3)]"
- National Primary Drinking Water Regulations for Lead and Copper: Regulatory Revisions
- Lead; Residential Lead Dust Hazard Standards [TSCA Section 403]
- Trichloroethylene (TCE) - TSCA Section 6(a); aerosol degreasing and spot cleaning in dry cleaning facilities
- Trichloroethylene (TCE); Rulemaking Under TSCA §6(a); Vapor Degreasing
- Paint Removers - Methylene Chloride (MC) and N-Methylpyrrolidone (NMP) - TSCA Section 6(a)
- Cyanotoxin Ambient Water Quality Criteria for Recreational Waters
- Regulation of Persistent, Bioaccumulative and Toxic (PBT) Chemicals under TSCA 6 (h)
- Regulatory Determinations for CCL 4
- National Primary Drinking Water Regulations: Group Regulation of Carcinogenic Volatile Organic Compounds (VOCs)
- "Polychlorinated Biphenyls (PCBs); Reassessment of Use Authorizations [TSCA Section 6(e)]"
- "Lead Wheel Weights; Regulatory Investigation [TSCA Section 21]"
- PM NAAQS Review
- Review of National Ambient Air Quality Standards (NAAQS) for Sulfur Dioxide (SO2)

Message

From: Richardson, RobinH [Richardson.RobinH@epa.gov]
Sent: 10/9/2018 6:24:38 PM
To: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
CC: Vizian, Donna [Vizian.Donna@epa.gov]; Darwin, Veronica [darwin.veronica@epa.gov]; Grantham, Nancy [Grantham.Nancy@epa.gov]
Subject: Re:

Apologies! Need to edit OCHP in the most recent draft...Protection v Programs.

Robin H Richardson
PDAA/OCIR
202-564-3358 (desk)
Ex. 6 (cell)
richardson.robinh@epa.gov

On Oct 8, 2018, at 2:26 PM, Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov> wrote:

> Sounds good. I am fine with whatever format Troy would like. Was not sure if formatting but happy to do whatever the group thinks is best.
>
> Helena Wooden-Aguilar
> Acting Deputy Chief of Staff
> U.S. Environmental Protection Agency
> 202-564-0792 (Work)
> Ex. 6 (Cell)
> wooden-aguilar.helena@epa.gov
>
> On Oct 8, 2018, at 2:01 PM, Richardson, RobinH <Richardson.RobinH@epa.gov> wrote:
>
> **Deliberative Process / Ex. 5**
>
> ---
> Robin H Richardson
> PDAA/OCIR
> 202-564-3358 (desk)
> Ex. 6 (cell)
> richardson.robinh@epa.gov
>
> On Oct 8, 2018, at 10:45 AM, Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov> wrote:
>
> > Attached is an updated version that includes language from Donna. I have left off Ryan, Matt, and Troy.

Thanks Donna and others for your help.

Helena

<draft responses OCHPv.2.docx>

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 Cell)
wooden-aguilar.helena@epa.gov

On Oct 8, 2018, at 1:10 PM, Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov> wrote:

> Ryan- attached is a first cut. I will work with Donna, OGC, Veronica, and others on formatting and moving this through quickly for your/Troy's review.
>
> Helena
>
> <draft responses OCHP.docx>
>
> Helena Wooden-Aguilar
> Acting Deputy Chief of Staff
> U.S. Environmental Protection Agency
> 202-564-0792 (Work)
> Ex. 6 (Cell)
> wooden-aguilar.helena@epa.gov
>
> On Oct 5, 2018, at 11:32 AM, Jackson, Ryan <jackson.ryan@epa.gov> wrote:
>
>> All – we received the attached letter which I would like to respond too soon rather than later which I think will be an easy response.
>>
>> The response can be signed by Troy like normal, but Helena will you take on drafting the first draft of the response?

Deliberative Process / Ex. 5

Finally, I just wanted to ask for your quick review to ensure that we are comfortable with the proposed answers.

Thanks.

Ryan Jackson
Chief of Staff
U.S. Environmental Protection Agency

Ex. 6

<EPA - To Wheeler - Udall et. al - re Office of Childrens Health Protection - (10.4.18).pdf>

Message

From: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Sent: 10/8/2018 5:37:57 PM
To: Vizian, Donna [Vizian.Donna@epa.gov]
Subject: Re: Fwd: RE:

Perfect. I will update the letter.

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 Cell)
wooden-aguilar.helena@epa.gov

On Oct 8, 2018, at 1:34 PM, Vizian, Donna <Vizian.Donna@epa.gov> wrote:

Here is some language for the letter.

Begin forwarded message:

From: "Corbett, Krysti" <Corbett.Krysti@epa.gov>
Date: October 5, 2018 at 9:57:58 AM PDT
To: "Vizian, Donna" <Vizian.Donna@epa.gov>
Subject: RE:

Deliberative Process / Ex. 5

Krysti Corbett
Director
Labor and Employee Relations Division
Desk Phone: (202) 564-6295
Mobile: Ex. 6
corbett.krysti@epa.gov

From: Vizian, Donna
Sent: Friday, October 5, 2018 12:48 PM
To: Corbett, Krysti <Corbett.Krysti@epa.gov>
Subject: Fwd:

Deliberative Process / Ex. 5

Begin forwarded message:

From: "Jackson, Ryan" <jackson.ryan@epa.gov>
Date: October 5, 2018 at 8:32:20 AM PDT
To: "Wooden-Aguilar, Helena" <Wooden-Aguilar.Helena@epa.gov>, "Leopold, Matt (OGC)" <Leopold.Matt@epa.gov>, "Darwin, Veronica" <darwin.veronica@epa.gov>, "Lyons, Troy" <lyons.troy@epa.gov>, "Vizian, Donna" <Vizian.Donna@epa.gov>

All – we received the attached letter which I would like to respond too soon rather than later which I think will be an easy response.

The response can be signed by Troy like normal, but Helena will you take on drafting the first draft of the response?

Deliberative Process / Ex. 5

Finally, I just wanted to ask for your quick review to ensure that we are comfortable with the proposed answers.

Thanks.

Ryan Jackson
Chief of Staff
U.S. Environmental Protection Agency

Ex. 6

Message

From: Grantham, Nancy [Grantham.Nancy@epa.gov]
Sent: 9/27/2018 10:09:44 AM
To: Vizian, Donna [Vizian.Donna@epa.gov]; Richardson, RobinH [Richardson.RobinH@epa.gov]; Grantham, Nancy [Grantham.Nancy@epa.gov]
Subject: Fwd: Morning Energy, presented by National Clean Energy Week: Permanent Conservation? — EPA's disappearing children's office — Vogtle not dead yet

See below / we should discuss thx ng

Sent from my iPhone

Begin forwarded message:

From: "POLITICO Pro Energy" <politicoemail@politicopro.com>
Date: September 27, 2018 at 5:57:49 AM EDT
To: <grantham.nancy@epa.gov>
Subject: Morning Energy, presented by National Clean Energy Week: Permanent Conservation? — EPA's disappearing children's office — Vogtle not dead yet
Reply-To: "POLITICO subscriptions" <reply-fe8913767c650c7877-630326_HTML-814497992-1376319-0@politicoemail.com>

By Ben Lefebvre | 09/27/2018 05:55 AM EDT

With help from Annie Snider and Matt Daily

ON A PERMANENT CONSERVATION: House Natural Resources Chairman Rob Bishop (R-Utah), he of the compromise extending the Land and Water Conservation Fund, has a warning for his friends in the Senate - don't try to make this spending mandatory. Bishop is a key player in trying to complete a reauthorization of the fund, which takes part of the money raised through oil and gas sales on federal land and then spends it on conservation projects. But making spending from the fund mandatory — as envisioned in a bipartisan Senate bill — would "probably blow it up in the House," he tells Pro's Anthony Adragna.

Listen all y'all: Bishop's stance could add significant additional hurdles to the fund's reauthorization. LWCF supporters prefer mandatory funding for the program because they say Congress chronically shortchanges it — creating a growing backlog of projects — and because the appropriations cycle has been so unpredictable, Anthony writes. A group of dedicated Senate LWCF backers led by Sen. Richard Burr (R-N.C.) say they won't let up in their quest to get the program reauthorized. "I believe we will ultimately win this fight because our colleagues know this is the right thing to do," Burr said on the Senate floor. "We're going to be relentless." The Senate Energy and Natural Resources Committee is scheduled to mark up an LWCF reauthorization bill next Tuesday.

GOOD MORNING! I'm your host, Ben Lefebvre, this Thursday morning as Kelsey Tamborrino takes a well-deserved vacation in London. Christi Tezak at ClearView Energy Partners was the first to correctly chime in that the Ogallala Aquifer flows under South Dakota, Nebraska, Wyoming, Colorado, Kansas, Oklahoma, New Mexico and Texas. Today's question: What is the active oil and gas production site due north of Hilo, Hawaii? Don't forget to send your tips, energy gossip and comments to blefebvre@politico.com, asnider@politico.com and

ddixon@politico.com. And remember to follow us on Twitter @Morning_Energy and @POLITICOPro.

President Donald Trump says a red wave is coming on election day. Is he right or will the tide turn blue? Compete against the nation's top political minds in the POLITICO Playbook Election Challenge, by correctly picking the winning candidates in some of the most competitive House, Senate and gubernatorial races in the country! Win awesome prizes and eternal bragging rights. Sign up today! Visit politico.com/playbookelectionchallenge to play.

WHERE'S ZINKE? Interior Secretary Ryan Zinke is in Asheville, N.C., to announce the results of the latest opioid task force operation.

CHILDREN'S HEALTH OFFICE ON THE ROPES? The ousted head of EPA's Office of Children's Health Protection wrote in an email to the leader of a nonprofit obtained by BuzzFeed News that "I appear to be the 'fall guy' for their plan to 'disappear' the office of children's health." Ruth Etzel, a pediatrician and epidemiologist, was put on administrative leave late Tuesday, for reasons she said in the email were not disciplinary. "It had been apparent for about 5 months that the top EPA leaders were conducting 'guerrilla warfare' against me as the leader of OCHP, but now it's clearly official," Etzel wrote, according to BuzzFeed.

An EPA reorganization chart recently shared with regional offices eliminated regional children's health coordinator positions - a move that some public health advocates saw as an opening gambit in a bid to shut down the office. The office, which was created under the Clinton administration, and has the right to formally weigh in on all of the major regulatory actions taken by the agency, including Trump administration rollbacks that EPA's experts estimate will harm human health.

The agency declined to comment on personnel matters, but spokesman John Konkus said in a statement that "EPA Headquarters has a number of specialty focused offices including the children's health, environmental justice, civil rights, and small business offices and these offices will continue to be a part of headquarters and regional organizations."

Real world example: Less than 24 hours after Etzel's removal, a top federal toxicologist told senators that research has found children to have higher levels of exposure to perfluorinated compounds, the nonstick chemicals tainting water supplies across the country, than their parents. EPA, which is in the process of developing an action plan for dealing with the chemicals, has been criticized by public health advocates for not lowering its safety threshold as new research has indicated the compounds can pose dangers at even lower levels.

SAY YES TO MICHIGAN: EPA's PFAS tour wasn't over after all, an agency official told lawmakers Wednesday. Peter Grevatt, the Water Office official leading EPA's work on the nonstick chemicals told a Senate Government Affairs subpanel that the agency will head to Michigan next week for stakeholder meetings. Communities across the Wolverine state have been learning of alarming levels of PFAS compounds in their water supplies in recent months as the state undertakes a proactive testing program.

Republican Michigan Gov. Rick Snyder, who has just a little experience with drinking water crises, was the first governor to back former EPA Administrator Scott Pruitt's efforts on the class of nonstick compounds, and EPA officials said they always intended to visit his state. But earlier this month EPA announced it was wrapping up its summer series of community engagement events without a visit to Michigan. That provoked an outcry from Michigan

lawmakers, Reps. Fred Upton (R), Debbie Dingell (D) and Tim Walberg (R), who extracted a promise from Grevatt during a hearing earlier this month to visit the state.

SPR IN THE SPOTLIGHT: Global markets are still jumpy as they try to figure out exactly how to replace Iran's shipments of 2 million barrels per day that are disappearing because of the President Donald Trump's decision to re-impose sanctions on Tehran. Those worries, plus the Federal Reserve's rate decision that kept the U.S. dollar fairly steady, could mean oil prices will be strong for the coming weeks and that's got the industry looking over its shoulder at the possibility that Trump could tap into oil in the Strategic Petroleum Reserve to push prices lower.

Driving prices: DOE Secretary Rick Perry told reporters such a release isn't in the cards, for now at least, according to media reports. That didn't exactly calm the waters — his comments lifted oil prices by 50 cents/bbl. There's also plenty of time to change his mind. Republicans could have to deal with higher gasoline prices going into the November midterms even as the administration tries to talk up its energy production policy.

Boppin' on OPEC: Trump, who has ramped up his criticism of OPEC after the cartel declined to raise its output, could release as much as 500,000 barrels per day from the SPR, though market experts say the price impact would be limited, and might simply widen the spread between U.S. and Brent prices. "It won't drop oil from $80 to $65, and any effect would be short-term," Hess Corp. President Greg Hill told Bloomberg News this week.

**** A message from National Clean Energy Week, A Clean Energy Future, Together:** National Clean Energy Week is taking place across the nation September 24-28, 2018. Learn more about how clean energy addresses America's economic and energy needs in the 21st century. **

UTAH BROUHAHA? Green groups are not giving up on opposing what would be the first oil shale mining project in the U.S. The Bureau of Land Management on Wednesday approved Enefit American Oil's request to build water pipelines and other infrastructure over public roads to complete its oil mining project in west Utah, which would produce 50,000 barrels of oil per day via digging up shale rock, heating it and treating it to remove petroleum. The company advertises the process as stable and efficient, but environmentalists argue it's more akin to strip mining and is extremely water intensive. "We're taking a very close look at this," the Center for Biological Diversity's Michael Saul told ME. "This project in particular is a terrible idea. We're evaluating our options."

LIGHTS STILL ON AT VOGTLE: Southern Co.'s Georgia Power will cover a higher share of future cost overruns at the Vogtle nuclear project in Georgia under a deal set today that will keep the lights on at the trouble project, according to a SEC filing issued yesterday. The agreement that kept alive the $28 billion two-reactor project also removes a requirement that the three biggest partners — Southern Co., Oglethorpe Power and the Municipal Electric Authority of Georgia — vote to continue the project in the event of future cost overruns, Pro's Darius Dixon reports.

Why would they do that? Maybe because such a requirement prompted this week's negotiations, which had threatened to derail the project, Darius reports. The four owners can now continue construction of two reactors despite a multibillion-dollar cost overrun.

LIVE, IN D.C.: Karen Evans, the recently confirmed DOE Assistant Secretary of Cybersecurity, Energy Security, and Emergency Response, will make her debut before the House Energy and Commerce Committee this morning. The hearing will focus on DOE's cybersecurity and energy security modernization efforts. "With energy systems now massively digitized and interconnected, new threats and vulnerabilities have emerged," Evans will say, according to her opening statement . "It's a whole of government effort, but DOE, in particular, must be vigilant and prepared when it comes to ensuring energy access and delivery through cyber threats, physical threats, and emergency situations." **If you go**, the hearing will start at 10:15 a.m. at 2322 Rayburn House Office Building.

SKI AND GREET: Five-time snowboarding Olympian Kelly Clark, plus other athletes and ski resort executives, will attend a reception on the Hill today with Reps. Ann McLane Kuster (D-N.H.) and Mike Coffman (R-Colo.) to discuss climate change and its impact on the winter recreation biz. Those interested can halfpipe on over to 340 Cannon House Office Building starting at 5:30 p.m.

HAPPENING TODAY:

10 a.m.: Nuclear Regulatory Commission holds a meeting on "Strategic Programmatic Overview of the Operating Reactors Business Line." 11555 Rockville Pike, Commissioners' Conference Room, Rockville, Md.

0 a.m.: House Science, Space, and Technology Committee conducts subcommittee hearing on "Advancing Nuclear Energy: Powering the Future." 2318 Rayburn House Office Building.

10:15 a.m.: House Energy and Commerce Committee conducts subcommittee hearing on "DOE Modernization: The Office of Cybersecurity, Energy Security, and Emergency Response." 2322 Rayburn House Office Building.

QUICK HITS:

"Oil eases, but Iran sanctions keep Brent above $80 a barrel," Reuters.

"U.S. Makes Shortlist for Saudi Nuclear-Plant Deal," WSJ.

"Trump's corn-state pledge puts Wheeler in a jam" E&E.

THAT'S ALL FOR ME! Annie Snider will be your ME host tomorrow.

**** A message from National Clean Energy Week, A Clean Energy Future, Together:** National Clean Energy Week is taking place across the nation September 24-28, 2018. Learn more about how clean energy addresses America's economic and energy needs in the 21st century. **

To view online:
https://subscriber.politicopro.com/newsletters/morning-energy/2018/09/permanent-conservation-353356

Stories from POLITICO Pro

Southern Co. agrees to cover higher share of future Vogtle cost overruns Back

By Darius Dixon | 09/26/2018 05:51 PM EDT

Southern Co.'s Georgia Power agreed to cover a higher share of future cost overruns at the Vogtle nuclear project under the deal set today with it partners, according to its SEC filing issued this afternoon.

The agreement that kept alive the $28 billion two-reactor project also removes a requirement that the three biggest partners — Southern Co., Oglethorpe Power and the Municipal Electric Authority of Georgia — vote to continue the project in the event of future cost overruns. That requirement prompted this week's negotiations, which had threatened to derail the project.

Southern also agreed to help the MEAG defray the costs of fending of lawsuits from the Jacksonville Electric Authority, which is trying to get out of a power purchase agreement with MEAG.

To view online click here.

Back

Vogtle nuclear project survives spat between owners Back

By Darius Dixon | 09/26/2018 04:31 PM EDT

The four owners of the Vogtle nuclear project agreed today to continue building the two reactors at the Georgia Power plant despite massive cost overruns, enabling the troubled development to survive its latest brush with death.

"We are all pleased to have reached an agreement and to move forward with the construction of Vogtle Units 3 & 4 which is critical to Georgia's energy future," the co-owners said in a statement. "While there have been and will be challenges throughout this process, we remain committed to a constructive relationship with each other and are focused on reducing project risk and fulfilling our commitment to our member-consumers."

The owners were called to decide the project's fate after the budget recently shot up another $2.3 billion. Oglethorpe Power, a not-for-profit electric cooperative in Georgia with a 30 percent stake in the two reactors, said on Monday it wanted to cap the costs for the project, which are now estimated at about $28 billion, and it pressed for Southern Co.'s Georgia Power to assume the risk for any further cost increases.

Oglethorpe's consent was needed to keep the project going, and for it to continue receiving financial support through the Energy Department's loan guarantee program.

The companies said today they had reached "definitive agreements" to help mitigate financial exposure for each of them, though they did not immediately release details.

Georgia Power, which has a 45.7 percent stake in the plant, had jabbed Oglethorpe in a late-night statement Monday, accusing the co-op of "using the vote to try to burden others with its obligations and extract unreasonable concessions."

Oglethorpe shot back midday Tuesday with a lengthy statement saying it was the subject of "misinformation campaign" and accused Georgia Power of "attempts to impeach our credibility."

The two other owners are the Municipal Electric Authority of Georgia and Dalton Utilities.

To view online click here.

Back

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POLITICOPRO

This email was sent to grantham.nancy@epa.gov by: POLITICO, LLC 1000 Wilson Blvd. Arlington, VA, 22209, USA

Message

From: Grantham, Nancy [Grantham.Nancy@epa.gov]
Sent: 9/26/2018 12:32:02 AM
To: Vizian, Donna [Vizian.Donna@epa.gov]; Richardson, RobinH [Richardson.RobinH@epa.gov]
Subject: Fwd: Dr. Ruth Etzel, OCHP Director

Sent from my iPhone

Begin forwarded message:

> **From:** "Wooden-Aguilar, Helena" <Wooden-Aguilar.Helena@epa.gov>
> **Date:** September 25, 2018 at 8:22:36 PM EDT
> **To:** "Grantham, Nancy" <Grantham.Nancy@epa.gov>, "Konkus, John" <konkus.john@epa.gov>
> **Subject: Fwd: Dr. Ruth Etzel, OCHP Director**
>
> Fyi.
>
> Helena Wooden-Aguilar
> Acting Deputy Chief of Staff
> U.S. Environmental Protection Agency
> 202-564-0792 (Work)
> Ex. 6 (Cell)
> wooden-aguilar.helena@epa.gov
>
> Begin forwarded message:
>
> > **From:** "Hackel, Angela" <Hackel.Angela@epa.gov>
> > **Date:** September 25, 2018 at 8:17:00 PM EDT
> > **To:** "Wooden-Aguilar, Helena" <Wooden-Aguilar.Helena@epa.gov>
> > **Subject: Fwd: Dr. Ruth Etzel, OCHP Director**
> >
> > Please call me if you can. Ex. 6
> > Sent from my iPhone
> >
> > Begin forwarded message:
> >
> > > **From:** "Morrissey, Barbara (DOH)" <Barbara.Morrissey@DOH.WA.GOV>
> > > **Date:** September 25, 2018 at 7:52:38 PM EDT
> > > **To:** Caroline Cox <caroline@ceh.org>, Deanna Scher <deanna.scher@state.mn.us>, Ellen Braff-Guajardo <ebraff-guajardo@sierrahealth.org>, "Forman, Joel" <joel.forman@mssm.edu>, "Huerta-Montanez, Gredia" <grediamd@gmail.com>, "James R. Roberts" <robertsj@musc.edu>, Jose Cordero <jcordero@uga.edu>, Julie Froelicher <Froelicher.jm@pg.com>, Lori Byron <lori.byron@gmail.com>, "Lowry, Jennifer" <jlowry@cmh.edu>, Maeve Howett <mhowett@umass.edu>, "Mark Miller"

<ucsfpehsumiller@gmail.com>, Maureen Little <mlittle@health.nyc.gov>, "Morrissey, Barbara (DOH)" <Barbara.Morrissey@DOH.WA.GOV>, Olga Naidenko <olga@ewg.org>, "Ornella, Greg" <gregory.a.ornella@sherwin.com>, "Pinar Kodaman" <pinar.kodaman@yale.edu>, Rebecca Bratspies <bratspies@mail.law.cuny.edu>, Rubin Patterson <rubin.patterson@howard.edu>, Steve Owens <stephenaowens@gmail.com>, Tom Neltner <tneltner@edf.org>
Cc: "Hackel, Angela" <Hackel.Angela@epa.gov>, "Berger, Martha (Berger.Martha@epa.gov)" <Berger.Martha@epa.gov>, "Foos, Brenda (Foos.Brenda@epa.gov)" <Foos.Brenda@epa.gov>
Subject: Dr. Ruth Etzel, OCHP Director

Dear CHPAC,

I just learned that Dr. Ruth Etzel, OCHP director, was removed from her official duties at EPA this afternoon and had to turn in her badge, keys, and cell phone. She was told it was not a disciplinary action and was placed on administrative leave. I have not spoken to Ruth directly or staff in the OCHP office nor do I know whether there are other actions underway to reduce or eliminate the Office of Children's Health Protection at EPA.

Ruth has been a strong national leader and voice for children's environmental health for her entire career. The book she edits for AAP on Pediatric Environmental Health has been the "go-to" guide on children's environmental health for physicians, public health, and policy-makers for the past 2 decades. As the OCHP director, she has been tapping her great expertise and passion to ensure that children are protected in the agency's environmental regulations and properly included in the agency's research and outreach programs. She has been a critical leader in development of the national lead strategy. The OCHP office also helps develop and track indicators of children's environmental exposures and is critical in supporting the NIEHS/EPA Children's Environmental Health and Disease Prevention Research Centers and the PEHSUs.

If you receive calls from the media specifically for a CHPAC perspective, please forward them to me. I hope to be able to speak out strongly in defense of Ruth and the OCHP office as the CHPAC chair. I hope you all have opportunities to express your strong support for this small but mighty office at EPA. They have accomplished much in the last 20 years but have important work ahead. If you have talking points you would like me to consider when representing the CHPAC, please forward them to me.

I foresee that this development may affect the planned CHPAC meeting in October. Please be patient while we wait for the office to digest the news and make decisions.

Barbara Morrissey, Toxicologist
Office of Environmental Public Health Sciences

Washington State Department of Health
barbara.morrissey@doh.wa.gov
360-236-3368 | www.doh.wa.gov

After work I can be reached at Ex. 6

Message

From: Grantham, Nancy [Grantham.Nancy@epa.gov]
Sent: 9/28/2018 6:50:40 PM
To: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]; Vizian, Donna [Vizian.Donna@epa.gov]
CC: Wulffen, Rebecca [Wulffen.Rebecca@epa.gov]
Subject: RE: OCHP Language - revised

Thanks

Nancy Grantham
Office of Public Affairs
US Environmental Protection Agency
202-564-6879 (desk)
Ex. 6 (mobile)

From: Wooden-Aguilar, Helena
Sent: Friday, September 28, 2018 2:50 PM
To: Vizian, Donna <Vizian.Donna@epa.gov>
Cc: Grantham, Nancy <Grantham.Nancy@epa.gov>; Wulffen, Rebecca <Wulffen.Rebecca@epa.gov>
Subject: Re: OCHP Language - revised

Ryan looking at it now. He wanted to run it by Andrew.

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

On Sep 28, 2018, at 2:30 PM, Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov> wrote:

Deliberative Process / Ex. 5

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

On Sep 28, 2018, at 2:27 PM, Vizian, Donna <Vizian.Donna@epa.gov> wrote:

Thanks. I leave it to Rebecca to comment. Deliberative Process / Ex. 5
Deliberative Process / Ex. 5

On Sep 28, 2018, at 2:25 PM, Grantham, Nancy <Grantham.Nancy@epa.gov> wrote:

Here is the revised language we just discussed – let us know of any comments/edits.

Thanks ng

Deliberative Process / Ex. 5

Message

From: Grantham, Nancy [Grantham.Nancy@epa.gov]
Sent: 9/28/2018 5:53:57 PM
To: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]; Vizian, Donna [Vizian.Donna@epa.gov]
Subject: FW: Ruth Etzel?

Come by when you can

Nancy Grantham
Office of Public Affairs
US Environmental Protection Agency
202-564-6879 (desk)
Ex. 6 mobile)

From: Kevin Bogardus [mailto:kbogardus@eenews.net]
Sent: Friday, September 28, 2018 1:52 PM
To: Konkus, John <konkus.john@epa.gov>; Abboud, Michael <abboud.michael@epa.gov>; Hewitt, James <hewitt.james@epa.gov>; Block, Molly <block.molly@epa.gov>; Press <Press@epa.gov>
Subject: Ruth Etzel?

Hey everyone,

It's Kevin Bogardus with E&E News.

I'm working on a story about Ruth Etzel, director of EPA's Office of Children's Health Protection, and her job status at the agency. I had a few questions about this, which are:

-- I now understand that Etzel is no longer on administrative leave and has been reinstated at EPA. Is that accurate?

-- When was Etzel reinstated at EPA? Yesterday? Today? Please be specific as possible.

-- Why was Etzel placed on administrative leave? And why was Etzel reinstated at EPA?

Please get back to me as soon as possible. My deadline is 4 pm EST today but the sooner you get back to me, the more it helps my reporting. Thank you for your help.

Kevin Bogardus
E&E News Reporter
kbogardus@eenews.net
202-446-0401 (p)
Ex. 6 (c)
202-737-5299 (f)

Follow me @KevinBogardus

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EnergyWire, ClimateWire, E&E Daily, Greenwire, E&ENews PM, E&ETV

Appointment

From: Firestone, Michael [Firestone.Michael@epa.gov]
Sent: 10/2/2018 7:56:37 PM
To: Firestone, Michael [Firestone.Michael@epa.gov]; Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]; Lesperance, Twanna [Lesperance.Twanna@epa.gov]; Maher, Karen [Maher.Karen@epa.gov]

Subject: OCHP Staffing
Attachments: OCHP Staffing October 2018.xlsx
Location: Helena's office

Start: 10/10/2018 1:00:00 PM
End: 10/10/2018 2:00:00 PM
Show Time As: Tentative

1. Details
2. Staffing levels/new hires
3. Placement of new staff (IO vs division)
4. Regional CEH Coordinators

	OCHP

As of October 1, 2018	FTE Allowable = 15
	FTE Actual = 11 (incl. detailees)

Name	Job Title	Series	Grade	FPL	Notes
	Immediate Office				
FIRESTONE, MICHAEL	ACTING OFFICE DIRECTOR				Internal Detailee
	DEPUTY DIRECTOR				Vacant
BERGER, MARTHA					Internal Detailee
	Regulatory Support & Science Policy D				
DZUBOW, REBECCA	HEALTH SCIENTIST	0601			
EULING, SUSAN	BIOLOGIST	0401			
FIGUEROA CORREA, ZAIDA	HEALTH SCIENTIST	0601			
MALASHOCK, DANIEL	HEALTH SCIENTIST (PHS OFFICER)	0601			
LOUIE, NICA					Detailee from ORD
FOOS, BRENDA	SUPVY BIOLOGIST	0401			
	Program Implementation & Coordinatior				
HACKEL, ANGELA	SUPVY ENVIRON PROTECTION SPEC	0028			
SWITZER, LAVONNE	PROGRAM ANALYST	0343			
SHAH, MANTHAN	HEALTH SCIENTIST	0601			
					Vacant
					Vacant
					Vacant

Ex. 6

Not currently in OCHP: On Detail or Administrative Leave (AL)

Name	Job Title	Source	Notes
ETZEL, RUTH			AL
KARGBO, MARCIA	PUBLIC LIAISON SPECIALIST		Detail
COOPWOOD, THEODORE			Detail

Message

From: Hughes, Hayley [hughes.hayley@epa.gov]
Sent: 8/27/2018 6:37:19 PM
To: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
CC: Grantham, Nancy [Grantham.Nancy@epa.gov]
Subject: RE: Federal Lead Strategy Consolidated Comments
Attachments: 20180827 FLS Comment Matrix.xlsx; 7-16-2018 FLS MS_HH.docx; PTF Draft Federal Lead Strategy LRM.pdf

Helena,

Per our discussion, I have consolidated the draft Federal Lead Strategy comments as well as created comments for OMB's track changes. The Office of Children's Health Protection and Steering Committee members did a great job managing a wide range of comments; however, there are a few areas that require additional input or clarification and/or justification and are highlighted in yellow in the new comment matrix (attached).

The comment matrix shows the Page # and Line # from the April 30, 2018, FLS version as well as the page/line #s from the OMB track changes document for the OMB comments to the left of the comment. To the right of the comment, there are columns for the "response" and the new page/line # in the July 16, 2018, version with a response justification column.

Attached:

- April 30, 2018, FLS version of the FLS that went to OMB for review/comments (PTF Draft Federal Lead Strategy LRM.pdf)
- July 16, 2018, last draft version of the FLS, includes a few minor comments in track/changes (7-16-2018 FLS MS_HH.docx)
- Consolidated comment matrix (20180827 FLS Comment Matrix.xlsx)

Please let me know if you have further questions.

Thanks,
Hayley

Hayley Hughes, DrPH, MPH, CSP
EPA National Lead Coordinator
Office of the Administrator
US Environmental Protection Agency

Desk: 202.564.1116
Email: Hughes.hayley@epa.gov

From: Hughes, Hayley
Sent: Monday, August 27, 2018 12:24 PM
To: Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>
Cc: Grantham, Nancy <Grantham.Nancy@epa.gov>
Subject: Federal Lead Strategy Consolidated Comments

Thanks,
Hayley

Hayley Hughes, DrPH, MPH, CSP
EPA National Lead Coordinator

Office of the Administrator
US Environmental Protection Agency

Desk: 202.564.1116
Email: Hughes.hayley@epa.gov

Message

From: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Sent: 10/16/2018 7:59:07 PM
To: Tyler Wedrosky Ex. 6
Subject: Re: Dr. Ruth Etzel - Administrative Leave

Dear Mr. Wedrosky,

Thank you for your comments.

Best,

Helena Wooden-Aguilar

On Oct 16, 2018, at 3:36 PM, Tyler Wedrosky Ex. 6 wrote:

> Hello Acting Deputy Chief of Staff Wooden-Aguilar,
>
> I am reaching out to you about the absolutely horrendous situation the "EPA" has put Dr. Etzel in. Instead of putting children's health first, your agency is putting the biggest polluters in our country first. Instead of protecting children's health, your agency is advocating for poisoning children - especially children in low-income communities. Children in those communities are on average more likely to live in areas of extreme environmental degradation, as I am sure you are well aware of. Your agency has literally committed to killing more people vis a vis the sleuth of deregulatory actions that have been proposed as of late - actions that will irreparably harm people's health, as well as the environment! Regardless, I can't image how Dr. Etzel feels about how years of her hard work have literally been thrown out the door. Such a burning injustice that the next administration will hopefully correct.
>
> What a sad and depressing state of affairs the Trump criminal enterprise has put this country in. November is coming!
>
> Thank you,
>
> Tyler Wedrosky
> Environmental Planning Professional | Assistant Planner @ Barghausen Consulting Engineers, Inc.
> Seattle, WA

Message

From: Grantham, Nancy [Grantham.Nancy@epa.gov]
Sent: 10/16/2018 7:44:16 PM
To: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Subject: Re: Dr. Ruth Etzel - Administrative Leave

Either a statement we have already used or "thank you for your comments "

Thx ng

Sent from my iPhone

On Oct 16, 2018, at 3:41 PM, Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov> wrote:

FYI. Should I respond?

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

Begin forwarded message:

From: Tyler Wedrosky Ex. 6
Date: October 16, 2018 at 3:30:23 PM EDT
To: Wooden-Aguilar.helena@epa.gov
Subject: Dr. Ruth Etzel - Administrative Leave

Hello Acting Deputy Chief of Staff Wooden-Aguilar,

I am reaching out to you about the absolutely horrendous situation the "EPA" has put Dr. Etzel in. Instead of putting children's health first, your agency is putting the biggest polluters in our country first. Instead of protecting children's health, your agency is advocating for poisoning children - especially children in low-income communities. Children in those communities are on average more likely to live in areas of extreme environmental degradation, as I am sure you are well aware of. Your agency has literally committed to killing more people vis a vis the sleuth of deregulatory actions that have been proposed as of late - actions that will irreparably harm people's health, as well as the environment! Regardless, I can't image how Dr. Etzel feels about how years of her hard work have literally been thrown out the door. Such a burning injustice that the next administration will hopefully correct.

What a sad and depressing state of affairs the Trump criminal enterprise has put this country in. November is coming!

Thank you,

Tyler Wedrosky
Environmental Planning Professional | Assistant Planner @ Barghausen Consulting Engineers, Inc.
Seattle, WA

Message

From: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Sent: 10/16/2018 5:05:57 PM
To: Coomber, Robert [coomber.robert@epa.gov]
CC: Patterson, Nicole [Patterson.Nicole@epa.gov]
Subject: Re: Fact-finding investigation

Sensitivity: Company Confidential

Attorney Client / Ex. 5

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

On Oct 16, 2018, at 12:53 PM, Coomber, Robert <coomber.robert@epa.gov> wrote:

Attorney Client / Ex. 5

Robert D. Coomber
Senior Labor Attorney
Labor and Employee Relations Division
Desk Phone: (202) 564-0955
Cell Phone: Ex. 6
coomber.robert@epa.gov

From: Wooden-Aguilar, Helena
Sent: Tuesday, October 16, 2018 12:36 PM
To: Coomber, Robert <coomber.robert@epa.gov>
Cc: Patterson, Nicole <Patterson.Nicole@epa.gov>
Subject: Re: Fact-finding investigation
Sensitivity: Confidential

Yes. Attorney Client / Ex. 5

Helena Wooden-Aguilar

Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

On Oct 16, 2018, at 12:25 PM, Coomber, Robert <coomber.robert@epa.gov> wrote:

Hey Helena,

Attorney Client / Ex. 5

Best,

Bob

Robert D. Coomber
Senior Labor Attorney
Labor and Employee Relations Division
Desk Phone: (202) 564-0955
Cell Phone: Ex. 6
coomber.robert@epa.gov

From: Whitcher, Elizabeth
Sent: Monday, October 15, 2018 4:23 PM
To: Coomber, Robert <coomber.robert@epa.gov>
Subject: FW: Fact-finding investigation
Sensitivity: Confidential

Bob,

Attorney Client / Ex. 5

From: Berger, Martha
Sent: Monday, October 15, 2018 4:17 PM
To: Whitcher, Elizabeth <Whitcher.Elizabeth@epa.gov>
Subject: RE: Fact-finding investigation
Sensitivity: Confidential

Liz,

Given your description of the purpose, I do not feel comfortable participating in this investigation and prefer to decline the opportunity. I have no record of doing a 360 on Dr. Etzel.

I hope this is acceptable.

Martha

Martha Berger
Office of Children's Health Protection
US Environmental Protection Agency
202/564-2191 or Ex. 6

From: Whitcher, Elizabeth
Sent: Thursday, October 11, 2018 3:33 PM
To: Berger, Martha <Berger.Martha@epa.gov>
Subject: RE: Fact-finding investigation
Sensitivity: Confidential

Hi Martha,

Although I am not sure of the exact timeline, I believe it was done some time after July 2017. Hope this is helpful.

Thank you,

Liz

From: Berger, Martha
Sent: Thursday, October 11, 2018 3:27 PM
To: Whitcher, Elizabeth <Whitcher.Elizabeth@epa.gov>
Subject: Re: Fact-finding investigation
Sensitivity: Confidential

Can you please remind me —when was the 360 of Ruth done?

Martha

Martha Berger
Office of Children's Health Protection
US Environmental Protection Agency
202/230-4784

On Oct 11, 2018, at 2:54 PM, Whitcher, Elizabeth <Whitcher.Elizabeth@epa.gov> wrote:

> Thank you very much for your response, Martha. I will send out a scheduler in a minute.
>
> In the meanwhile, if you think you have any documents that may be relevant to my investigation, could you please send them to me, or bring them to our meeting next week. In particular, if you still have a copy of the 360 assessment you completed for Dr. Ruth Etzel, that would be helpful.
>
> Thank you again,

Liz

From: Berger, Martha
Sent: Thursday, October 11, 2018 12:43 PM
To: Whitcher, Elizabeth <Whitcher.Elizabeth@epa.gov>
Subject: Re: Fact-finding investigation
Sensitivity: Confidential

Hi,
I am available on the 17th (working from home) or 18th (in office).

Martha

Martha Berger
Office of Children's Health Protection
US Environmental Protection Agency
202/230-4784

On Oct 11, 2018, at 11:26 AM, Whitcher, Elizabeth <Whitcher.Elizabeth@epa.gov> wrote:

> Good morning, Martha,
>
> I am a labor/employee relations attorney in EPA Region 1. I am writing to inform you that Helena Wooden-Aguilar, Acting Deputy Chief of Staff, has appointed me to conduct a fact-finding investigation into several concerns that were raised in the course of a 360 leadership assessment conducted in OCHP in 2017-2018. Ms. Wooden-Aguilar has authorized me to inquire into all aspects of this matter, collect and review documents, interview Agency personnel, and obtain written statements from such personnel for information relevant to the fact-finding.
>
> I would like to meet with you in person to discuss your observations. Please let me know if you are available to meet on **October 17, 18, or 19**. After we meet, I will provide you a copy of my summary of the discussion for you to comment on before it is finalized.
>
> In the meanwhile, please let me know if you are aware of any other individuals who may have relevant information pertaining to the issues I will be investigating, and, if so, provide me with their names and contact information.
>
> I must advise you that, although the confidentiality of these matters and the identity of all persons involved will be protected to the extent possible and will only be revealed to persons with a need to know, I cannot guarantee that information that you give me will remain confidential because disclosure may be required under

certain circumstances. I would also ask that you not discuss this fact-finding investigation with anyone who does not have a need to know about your participation. If you have any questions pertaining to the confidentiality of information or your participation in this investigation, please contact me.

I look forward to meeting you in person. In the meanwhile, please do not hesitate to reach out if you have any questions or concerns.

Thank you for your time,

Liz

Elizabeth M. Whitcher
Office of Regional Counsel
EPA Region 1
5 Post Office Square, ORA-18
Boston, MA 02109
(617)918-1263

Message

From: Grantham, Nancy [Grantham.Nancy@epa.gov]
Sent: 10/15/2018 7:31:15 PM
To: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Subject: FW: Ousted EPA children's health official says she was frozen out

fyi

Nancy Grantham
Office of Public Affairs
US Environmental Protection Agency
202-564-6879 (desk)
Ex. 6 (mobile)

From: Konkus, John
Sent: Monday, October 15, 2018 3:24 PM
To: asnider@politico.com
Cc: Press <Press@epa.gov>
Subject: FW: Ousted EPA children's health official says she was frozen out

Annie: Here's a statement on this:

"Dr. Etzel is currently on administrative leave because of serious reports made against her by staff regarding her leadership of the Office of Children's Health. It's unfortunate that she has decided to go to the press in what appears to be an attempt to distract from these allegations. The Agency believes Dr. Etzel's characterizations misrepresent the situation; this is about allegations of a person's actions, not the Office. Everyone involved should allow the Agency to continue looking into the allegations of inappropriate conduct, in the meantime the Office of Children's Health and our work to reduce lead exposure continue to be cornerstones of the EPA's work, just as they have always been." – EPA Spokesperson

Thank you.

From: POLITICO Pro Energy Whiteboard [mailto:politicoemail@politicopro.com]
Sent: Monday, October 15, 2018 11:40 AM
To: Konkus, John <konkus.john@epa.gov>
Subject: Ousted EPA children's health official says she was frozen out

By Annie Snider

10/15/2018 11:38 AM EDT

EPA's top children's health official, who was abruptly removed from her job at the end of September, told "CBS This Morning" that she was given no reason for why she was put on administrative leave, but said that her office's push for special considerations in EPA regulations for children "is not welcome."

Ruth Etzel, the pediatrician who headed the Office of Children's Health Protection, said that when the Trump administration took over in January 2017, her monthly meetings to advise the EPA administrator on children's health issues were quickly halted. She has had "not one" one-on-one meeting with either former Administrator Scott Pruitt or now acting Administrator Andrew Wheeler.

EPA has said that Etzel's removal is a "personnel matter" and that she was placed on leave while the agency investigates allegations about her leadership of the office. Agency leaders have said the move signals no change to its focus on children's health, and Wheeler last week issued a memo reiterating the agency's commitment to the subject.

In the interview, Etzel also expressed skepticism about the administration's strategy to protect children from lead poisoning. Pruitt launched the cross-agency effort with much fanfare earlier this year, but it has since stalled.

"My sense is that the government has absolutely no intention of taking any action toward seriously changing lead in children's environments," Etzel said.

To view online:
https://subscriber.politicopro.com/energy/whiteboard/2018/10/ousted-epa-childrens-health-official-says-she-was-frozen-out-2068958

You received this POLITICO Pro content because your customized settings include: Energy: EPA. To change your alert settings, please go to https://subscriber.politicopro.com/settings

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This email was sent to konkus.john@epa.gov by: POLITICO, LLC 1000 Wilson Blvd. Arlington, VA, 22209, USA

Message

From: Firestone, Michael [Firestone.Michael@epa.gov]
Sent: 10/15/2018 5:11:53 PM
To: Foos, Brenda [Foos.Brenda@epa.gov]; Hackel, Angela [Hackel.Angela@epa.gov]
Subject: OCHP Staffing
Attachments: OCHP Staffing November 2018 proposal 1.xlsx

Brenda, Angela

Thanks for the great discussion today re: staffing at today's manager's meeting. As promised, I've attached the spreadsheet showing both where we are now and a first rough cut of a possible recommendation for back filling to discuss with Helena.

Please feel free to fix any incorrect information in the first tab, and modify the second tab to suggest how we move forward to fill our missing FTEs. As part of the latter of the second task, please revise/update the two text boxes at the bottom of the second tab to reflect your suggestions.

Thanks.

Michael P. Firestone, Ph.D., Acting Director
Office of Children's Health Protection (MC 1107T)
U.S. Environmental Protection Agency
Office: 202-564-2199
Cell: Ex. 6

OCHP

As of October 1, 2018	FTE Ceiling = 13.1
	FTE Actual = 11 (incl. detailees)

	Immediate Office				
Name	**Job Title**	**Series**	**Grade**	**FPL**	**NOTES**
FIRESTONE, MICHAEL	OFFICE DIRECTOR (ACTING)		Ex. 6		Internal Detailee
VACANT	DEPUTY DIRECTOR				VACANT
BERGER, MARTHA	SPECIAL ASSISTANT				Internal Detailee

	Regulatory Support & Science Policy Divison				
Name	**Job Title**	**Source**	**Grade**	**FPL**	**NOTES**
DZUBOW, REBECCA	HEALTH SCIENTIST	0601	Ex. 6		
EULING, SUSAN	BIOLOGIST	0401			
FIGUEROA CORREA, ZAIDA	HEALTH SCIENTIST	0601			
MALASHOCK, DANIEL	HEALTH SCIENTIST (PHS OFFICER)	0601			
LOUIE, NICA	ENVIRONMENTAL SCIENTIST				Detailee from ORD
FOOS, BRENDA	SUPVY BIOLOGIST	0401			
SCHROEDER, KATHLEEN	PEDIATRICIAN				(SEE)
WILLIS, MARGARET					ORISE FELLOW
DAI, MONA					ORISE FELLOW

	Program Implementation & Coordination Division				
Name	**Job Title**	**Source**	**Grade**	**FPL**	**NOTES**
HACKEL, ANGELA	SUPVY ENVIRON PROTECTION SPEC	0028	Ex. 6		
SWITZER, LAVONNE	PROGRAM ANALYST	0343			
SHAH, MANTHAN	HEALTH SCIENTIST	0601			
					Temp Detail or Lateral
RAMOS, DANIELLE					ORISE FELLOW

Other Staffing Resources					
Name	**Job Title**	**Source**	**Grade**	**FPL**	**NOTES**

Phyllis C Basden	Administrative Assistant				Clerical (SE)
Mellasonda Curtis	Assistant to the Director				Administrative (SEE)
Ann Fisher-Durrah	Travel Coordinator				Travel (SEE)

Not currently in OCHP: On Detail or Administrative Leave (AL)					
Name	**Job Title**	**Source**	**Grade**	**FPL**	**Notes**
ETZEL, RUTH			Ex. 6		AL
KARGBO, MARCIA	PUBLIC LIAISON SPECIALIST				Detail
COOPWOOD, THEODORE					Detail

OCHP

Proposed November 2018
FTE Actual = 13 (incl. detailees)

Immediate Office

Name	Job Title	Source	Grade	FPL	NOTES
FIRESTONE, MICHAEL	OFFICE DIRECTOR (ACTING)		Ex. 6		Internal Detailee
VACANT	DEPUTY DIRECTOR				VACANT
BERGER, MARTHA	SPECIAL ASSISTANT				Internal Detailee

Regulatory Support & Science Policy Divison

Name	Job Title	Source	Grade	FPL	NOTES
DZUBOW, REBECCA	HEALTH SCIENTIST	0601	Ex. 6		
EULING, SUSAN	BIOLOGIST	0401			
NEW DETAIL					
LOUIE, NICA	ENVIRONMENTAL SCIENTIST				Permanent Hire (?)
FOOS, BRENDA	SUPVY BIOLOGIST	0401			
SCHROEDER, KATHLEEN	PEDIATRICIAN				(SEE)
WILLIS, MARGARET					ORISE FELLOW
DAI, MONA					ORISE FELLOW

Program Implementation & Coordination Division

Name	Job Title	Source	Grade	FPL	NOTES
HACKEL, ANGELA	SUPVY ENVIRON PROTECTION SPEC	0028	Ex. 6		
SWITZER, LAVONNE	PROGRAM ANALYST	0343			
SHAH, MANTHAN	HEALTH SCIENTIST	0601			
MALASHOCK, DANIEL	HEALTH SCIENTIST (PHS OFFICER)	0601			
RAMOS, DANIELLE					ORISE FELLOW

Other Staffing Resources

Name	Job Title	Source	Grade	FPL	NOTES
Phyllis C Basden	Administrative Assistant				Clerical (SE)
Mellasonda Curtis	Assistant to the Director				Administrative (SEE)
Ann Fisher-Durrah	Travel Coordinator				Travel (SEE)

Not currently in OCHP: On Detail or Administrative Leave (AL)					
Name	Job Title	Source	Grade	FPL	NOTES
ETZEL, RUTH			SES		AL
KARGBO, MARCIA	PUBLIC LIAISON SPECIALIST		Ex. 6		Detail
FIGUEROA CORREA, ZAIDA	HEALTH SCIENTIST	0601			Detail
COOPWOOD, THEODORE					Detail

REFLECTS: (1) No change in organizational structure; (2) Hiring Nica Louie for RSSPD; (3) Moving Daniel M to PICD; (4) Adding a detailee to RSSPD; (5) Zaida F going on detail; (6) Martha B remaining on internal detail to IO; (7) Ted)(continuing) & Marcia on outside detail.

OCHP Needs that require staffing: (1) Regional coordinator; (2) President's Task Force support; (3) CHPAC assistance; (4) STPC Science Support Group representative; (5) science support such as NTP workgroup participation

Message

From: Twillman, Brian [Twillman.Brian@epa.gov]
Sent: 10/15/2018 1:56:40 PM
To: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
CC: Maher, Karen [Maher.Karen@epa.gov]; McCluney, Lance [McCluney.Lance@epa.gov]; Vann, Alexis [vann.alexis@epa.gov]; Twillman, Brian [Twillman.Brian@epa.gov]; Lesperance, Twanna [Lesperance.Twanna@epa.gov]; Cortes, Emilio [Cortes.Emilio@epa.gov]
Subject: For YOUR Review: AO FY 2018 Org Assessments for ESP and NPM
Attachments: Draft v.3 AO FY 2018 Organizational Assessment - ESP.docx; FINAL AO FY 2018 Org Assessment-NPM.DOCX; Final AO FY 2017 Org Assessment-ESP.DOCX

Helena – Here is the draft v.3 'SHORTENED' version of the AO FY 2018 Organizational Assessment - ESP……what will now make it 'FINAL' is if we could add an item or two from OPA. Lance, Alexis and I left sufficient space for 1 or 2 items to be added.

Also, here is the FINAL AO FY 2018 Organizational Assessment – NPM…..and, for reference, The FINAL AO FY 2017 Organizational Assessment for ESP.

Let us know if there will be additional input.

We will send both FINAL documents to Lisa Matluk later today!!

- Brian

From: Twillman, Brian
Sent: Monday, October 15, 2018 9:13 AM
To: Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>
Cc: Lesperance, Twanna <Lesperance.Twanna@epa.gov>; McCluney, Lance <McCluney.Lance@epa.gov>; Maher, Karen <Maher.Karen@epa.gov>; Vann, Alexis <vann.alexis@epa.gov>; Twillman, Brian <Twillman.Brian@epa.gov>; Cortes, Emilio <Cortes.Emilio@epa.gov>
Subject: FW: For Review: AO Org Assessment - We are Reducing the ESP Org Assessment

Helena – Alexis just informed me that Karen and Alexis worked on Friday to REDUCE THE DOCUMENT DOWN TO 1.5 pages….Alexis and I will now work with Lance to reduce it any further……Alexis will provide us with the revised 'shortened' version ASAP……

- Brian

From: Twillman, Brian
Sent: Monday, October 15, 2018 8:29 AM
To: Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>; Maher, Karen <Maher.Karen@epa.gov>; McCluney, Lance <McCluney.Lance@epa.gov>
Cc: Lesperance, Twanna <Lesperance.Twanna@epa.gov>; Vann, Alexis <vann.alexis@epa.gov>; McCluney, Lance <McCluney.Lance@epa.gov>; Cortes, Emilio <Cortes.Emilio@epa.gov>
Subject: RE: For Review: AO Org Assessment

Helena – We do not feel that we are able to make the final selections of what items to reduce in the FY 2018 AO Org Assessment for ESP……and, would hope that you would simply cross-out the items you do not want to include and keep the items you would want to keep. We stand ready to make the actual changes in the electronic version. To help you make some determinations, here is a copy of the Final AO FY 2017 Org Assessment for ESP.

As for the FY 2018 Org Assessment for NPM….I have gone ahead and make this a FINAL Document.

Reminder: AO's FY 2018 Organizational Assessments for reporting accomplishments associated with activities, initiatives, etc., at the National Program Manager level include these offices: (i.e., OP, OSDBU/ABSO, OCHP, and OPEEE – Environmental Education) and the Enabling and Support Programs include these offices: (i.e., OCR, OCIR, OEX, OAES, OHS, OP, OSDBU, OPA, and OPEEE – Environmental Engagement), respectively.

The templates have been formatted as OARM has requested (Calibri, 10 font) and present brief but concise narratives, highlights and quantitative information. In each case, we are restricted to 1-page submissions for the NPM and the EPS Organizational Assessments.

- Brian

From: Wooden-Aguilar, Helena
Sent: Monday, October 15, 2018 8:12 AM
To: Maher, Karen <Maher.Karen@epa.gov>; McCluney, Lance <McCluney.Lance@epa.gov>
Cc: Lesperance, Twanna <Lesperance.Twanna@epa.gov>; Twillman, Brian <Twillman.Brian@epa.gov>; Vann, Alexis <vann.alexis@epa.gov>; McCluney, Lance <McCluney.Lance@epa.gov>; Cortes, Emilio <Cortes.Emilio@epa.gov>
Subject: Re: For Review: AO Org Assessment

Brian and Alexis-

I need a revised document by noon that includes OPA and both document must be one page. I realize that Karen is so I am looping in Lance.

I have also looped in Emilo as he will be helping me get this across the finish line by today COB. I am pushing as hard as I can as I received this on Friday and I have to ensure the COS see's it as well.

Helena

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

On Oct 12, 2018, at 5:44 PM, Maher, Karen <Maher.Karen@epa.gov> wrote:

> Helena,
>
> Attached are the DRAFT copies of AO's FY 2018 Organizational Assessments for reporting accomplishments associated with activities, initiatives, etc.
>
> - The National Program Manager (NPM) level (i.e., OP, OSDBU/ABSO, OCHP, and OPEEE – Environmental Education)
> - The Enabling and Support Programs (ESP) (i.e., OCR, OCIR, OEX, OAES, OHS, OP, OSDBU, OPA, and OPEEE – Environmental Engagement)
>
> Both documents (NPM and ESP) are restricted to 1-page. The NPM is at 1 page now and the ESP is over the limit. I need your perspective on what should remain and what we can cut. Attached are the FY17 NPM and ESP submissions for background.
>
> I'm on travel in Philadelphia Sunday – Wednesday but available via email or phone.

Brian and Alexis are ready to help get these done.
The new Agency deadline for these to be sent to Lisa Matluk is next Monday, October 15.

Karen

Karen J. Maher
Acting Director
Office of Administrative and Executive Services
Office of the Administrator
U.S. Environmental Protection Agency
Office: (202)566-0362
Mobile: Ex. 6
Maher.karen@epa.gov
the ESP 2018 document.

<Draft v.2- AO FY 2018 Organizational Assessment - ESP_KM edits.docx>

<Final AO FY 2017 Org Assessment-NPM.docx>

<Final AO FY 2017 Org Assessment-ESP.docx>

<Draft v.1 AO FY 2018 Org Assessment-NPM.docx>

United States Environmental Protection Agency
Organizational Assessment of Performance - ESP

1. Organization: Office of the Administrator 2. Fiscal Year: 2017

3. Key Events/Issues/Challenges and Management Actions:

- AO utilized 95% of FY 2017/2018 appropriated funds and AO stayed within its mandated FTE ceiling.
- AO/OP/NCEE conducted original economic and policy analyses, and performed technical reviews for over 40 significant proposed or finalized EPA regulations. Prepared technical reviews of analyses supporting economically significant regulations proposed by other federal agencies regulating the US energy sector and GHG emissions. Completed EPA's "Technical Guidance for Assessing Environmental Justice in Regulatory Analysis.
- AO/OPEEE/OPE staff assisted the OW and the Office of Public Affairs on stakeholder engagement on issues surrounding WOTUS.
- AO/OSDBU Partnered with Region 3 to coordinate and host the National HUBZone Summit in Philadelphia, providing small business training and matchmaking opportunities with EPA, prime contractors and other federal agency officials.
- AO/OCIR managed scores of congressional and intergovernmental interactions including briefings, meetings, rollouts, and notifications and federalism consultations on key national issues such as: WOTUS, regulatory reform, TSCA-21 implementation, 2018 RFS volumes, small refinery hardship waivers, oil and gas industry regulations and guidance, Ozone NAAQS implementation rules, reginal haze actions, RFS point of obligation proposal, and a number of high profile environmental incidents.
- AO/OHS coordinated the Agency's partnering with the White House National Security Council and the Office of Science and Technology Policy, DHS, and other federal agencies and the US intelligence community in order to facilitate a wide variety of HS information sharing and joint planning, research, exercise and training efforts.
- AO/OAES developed a comprehensive business operations suite in SharePoint that continuously tracks data, monitors requests and produces reports to increase overall effectiveness of HR management, budget utilization, and other operational activities.
- AO/OP/NCEE implemented regulatory budget requirements of EO 13771 and reviewed over 30 regulatory and deregulatory actions to ensure documented and defensible estimates of costs and cost savings. Led development of methods to address the unique challenges of conducting economic analysis for deregulatory actions and performed technical reviews for EO 12866 of over 35 significant actions.
- AO/OEX promoted proper management of electronic records, resulting in a 41% increase in the number of records stored in ECMS, bringing the total to 2,179,149.
- AO/OPA, in collaboration with the Office of Emergency Management, updated the 10-year old agency crisis communications plan (an Agency Order) to reflect lessons learned across many crises. The document was updated as an 'always on" plan.

4. Performance Reporting

Measure area/topic	Overall status: Will meet/exceed not meet FY2017 targets?	Explanation of performance results: 4th Quarter accomplishment
Small Business Goal (EPA Goal = 40.00%)	Will Exceed	40.12%; (AO = 46.00%)
SDB (EPA Goal = 5.0%)	Will Exceed	15.28%; (AO = 18.09%)
WOSB (EPA Goal =5.0%)	Will Exceed	6.40%; (AO = 12.99%)
SDVOSB (EPA Goal =3%)	Will Exceed	3.75%; (AO = 1.69%)
HUBZone (EPA Goal = 3%)	Will not meet - achievement increased (from 0.6 level in previous year)	1.57 %; (AO = 0.03%)
Local Environmental Education Grants	Target Met	In 2017, HQ AO/OPEEE/OEE and the 10 regions awarded 34 grants for a total of $3,186,680.
Communities CAS	No Target Established	AO/OCHP staff provided financial ($75K for asthma and lead projects in Regions 1,4, and 10)
EEO Complaints	Did Not consistently meet EEOC timeframes	AO/OCR completed 69 EEO investigations & 32 final agency decisions; both were the highest in the last 5 yrs.
Reasonable Accommodation Requests	Will Exceed	AO/OCR processed a high volume of 355 RA requests.

5. Other Efficiencies, Cost-Savings, and Administrative Accomplishments:

- AO/OSDBU reported that EPA received an "A" on the FY 2016 SBA Small Business Procurement Score Card.
- AO/OAES introduced the Electronic Business Operations and Staffing System (e-Boss) to AO in Aug 17; the e-Boss system is an end to end HR+ solution that has the potential to become the AA Ship standard for internal management of personnel and related ops.
- AO/OSDBU provided training to agency stakeholders and 11 virtual small business training sessions in conjunction with SBA.
- AO/OPA and AO/OCIR held a three-day national meeting with the Regional Congressional Liaisons. This meeting was held simultaneously with the Public Affairs Directors' meeting and allowed OPA & OCIR to achieve efficiencies in planning and facilitating the meeting. as many of the RCLs work out of Public Affairs Offices in the regions.
- AO/OHS, for the first time in years and in conjunction with the HSCN, has begun a new annual process to evaluate the Agency's 170+ FTE/$90 million homeland security program, in light of increasing HS program demands and in coordination with ORD's FY 14-19 HS strategic research action plan. The new process will access EPA's progress in meeting statutory, executive and interagency HS requirements, as well as the Agency's level of preparedness for HS incidents.
- AO/SAB closed out a three-year effort to award a joint venture contract to secure logistical, transparent and high quality contract support for EPA advisory committee meetings for the next 5 years. The new 8(a) Award totals approximately $4M, securing services until 2022, for the advisory committee community. This revised approach saves each AO office an FTE or work hours of one FTE COR, by utilizing one individual with the expertise across AO.
- AO/OAES led Talent Hub, the Agency-wide one-stop-shop for professional development opportunities. The Hub has posted 600 opportunities with over 2,000 applications.
- AO/OAES/IO partnered with OARM/ERD to facilitate SES "Meet & Greet" meetings to foster stronger networks among the senior leaders across the Agency.

Message

From: Whitcher, Elizabeth [Whitcher.Elizabeth@epa.gov]
Sent: 10/12/2018 5:41:36 PM
To: Foos, Brenda [Foos.Brenda@epa.gov]; Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Subject: RE: Fact-finding investigation

Sensitivity: Company Confidential

Thank you for your email, Brenda. I have contacted potential interview participants and clarified that the investigation concerns Dr. Ruth Etzel. Please let me know if you have any other questions.

Liz

From: Foos, Brenda
Sent: Friday, October 12, 2018 11:45 AM
To: Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>
Cc: Whitcher, Elizabeth <Whitcher.Elizabeth@epa.gov>
Subject: RE: Fact-finding investigation
Sensitivity: Confidential

Elizabeth and Helena,

I understand from your follow-up emails that my 360 is not the subject of the investigation; however, I have heard from one of my staff that they have not been told of the clarification. I asked all of my staff to participate in my 360, so to the extent that you are speaking with them about the 360 then you are talking about me.

I would like to reiterate my request (made to Elizabeth yesterday) for clarification with all potential participants that the investigation is about Ruth's 360.

Thank you, Brenda

****

Brenda Foos
Director, Regulatory Support and Science Policy Division
U.S. EPA Office of Children's Health Protection
202-564-2707

From: Wooden-Aguilar, Helena
Sent: Thursday, October 11, 2018 9:44 PM
To: Foos, Brenda <Foos.Brenda@epa.gov>
Cc: Whitcher, Elizabeth <Whitcher.Elizabeth@epa.gov>
Subject: Re: Fact-finding investigation
Sensitivity: Confidential

Brenda - apologies for any confusion. You are not the subject of the fact finding. If you have any additional questions please feel free to contact Liz Whitcher or myself. Thanks, Helena

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)

Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

On Oct 11, 2018, at 12:53 PM, Foos, Brenda <Foos.Brenda@epa.gov> wrote:

Liz, as a clarification, am I the subject of this investigation as I was a part of the 360 leadership assessment? If so, I request more information on what is being investigated as your email is the first that I heard about this matter.

Thanks, Brenda

****

Brenda Foos
Director, Regulatory Support and Science Policy Division
U.S. EPA Office of Children's Health Protection
202-564-2707

On Oct 11, 2018, at 11:31 AM, Whitcher, Elizabeth <Whitcher.Elizabeth@epa.gov> wrote:

Good morning, Brenda,

I am a labor/employee relations attorney in EPA Region 1. I am writing to inform you that Helena Wooden-Aguilar, Acting Deputy Chief of Staff, has appointed me to conduct a fact-finding investigation into several concerns that were raised in the course of a 360 leadership assessment conducted in OCHP in 2017-2018. Ms. Wooden-Aguilar has authorized me to inquire into all aspects of this matter, collect and review documents, interview Agency personnel, and obtain written statements from such personnel for information relevant to the fact-finding.

I would like to meet with you in person to discuss your observations. Please let me know if you are available to meet on **October 17, 18, or 19**. After we meet, I will provide you a copy of my summary of the discussion for you to comment on before it is finalized.

In the meanwhile, please let me know if you are aware of any other individuals who may have relevant information pertaining to the issues I will be investigating, and, if so, provide me with their names and contact information.

I must advise you that, although the confidentiality of these matters and the identity of all persons involved will be protected to the extent possible and will only be revealed to persons with a need to know, I cannot guarantee that information that you give me will remain confidential because disclosure may be required under certain circumstances. I would also ask that you not discuss this fact-finding investigation with anyone who does not have a need to know about your participation. If you have any questions pertaining to the confidentiality of information or your participation in this investigation, please contact me.

I look forward to meeting you in person. In the meanwhile, please do not hesitate to reach out if you have any questions or concerns.

Thank you for your time,

Liz

Elizabeth M. Whitcher
Office of Regional Counsel
EPA Region 1
5 Post Office Square, ORA-18
Boston, MA 02109
(617)918-1263

Message

From: Whitcher, Elizabeth [Whitcher.Elizabeth@epa.gov]
Sent: 10/12/2018 4:41:42 PM
To: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Subject: RE: Fact-finding investigation

Sensitivity: Company Confidential

Will do. Thanks!

Liz

From: Wooden-Aguilar, Helena
Sent: Friday, October 12, 2018 12:16 PM
To: Whitcher, Elizabeth <Whitcher.Elizabeth@epa.gov>
Subject: RE: Fact-finding investigation
Sensitivity: Confidential

Can you please respond? I agree with you.

From: Whitcher, Elizabeth
Sent: Friday, October 12, 2018 12:01 PM
To: Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>
Subject: FW: Fact-finding investigation
Sensitivity: Confidential

Helena, would you like to respond to this email, or would you like me to respond? For what it's worth, because I don't know the extent of each individual witness's involvement in the matter, I would like to keep the stated scope of the interviews fairly broad.

Thanks,

Liz

From: Foos, Brenda
Sent: Friday, October 12, 2018 11:45 AM
To: Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>
Cc: Whitcher, Elizabeth <Whitcher.Elizabeth@epa.gov>
Subject: RE: Fact-finding investigation
Sensitivity: Confidential

Elizabeth and Helena,

I understand from your follow-up emails that my 360 is not the subject of the investigation; however, I have heard from one of my staff that they have not been told of the clarification. I asked all of my staff to participate in my 360, so to the extent that you are speaking with them about the 360 then you are talking about me.

I would like to reiterate my request (made to Elizabeth yesterday) for clarification with all potential participants that the investigation is about Ruth's 360.

Thank you, Brenda

****

Brenda Foos
Director, Regulatory Support and Science Policy Division
U.S. EPA Office of Children's Health Protection
202-564-2707

From: Wooden-Aguilar, Helena
Sent: Thursday, October 11, 2018 9:44 PM
To: Foos, Brenda <Foos.Brenda@epa.gov>
Cc: Whitcher, Elizabeth <Whitcher.Elizabeth@epa.gov>
Subject: Re: Fact-finding investigation
Sensitivity: Confidential

Brenda - apologies for any confusion. You are not the subject of the fact finding. If you have any additional questions please feel free to contact Liz Whitcher or myself. Thanks, Helena

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

On Oct 11, 2018, at 12:53 PM, Foos, Brenda <Foos.Brenda@epa.gov> wrote:

> Liz, as a clarification, am I the subject of this investigation as I was a part of the 360 leadership assessment? If so, I request more information on what is being investigated as your email is the first that I heard about this matter.
>
> Thanks, Brenda
>
> **********
>
> Brenda Foos
> Director, Regulatory Support and Science Policy Division
> U.S. EPA Office of Children's Health Protection
> 202-564-2707
>
> On Oct 11, 2018, at 11:31 AM, Whitcher, Elizabeth <Whitcher.Elizabeth@epa.gov> wrote:
>
>> Good morning, Brenda,
>>
>> I am a labor/employee relations attorney in EPA Region 1. I am writing to inform you that Helena Wooden-Aguilar, Acting Deputy Chief of Staff, has appointed me to conduct a fact-finding investigation into several concerns that were raised in the course of a 360 leadership assessment conducted in OCHP in 2017-2018. Ms. Wooden-Aguilar has authorized me to inquire into all aspects of this matter, collect and review documents,

interview Agency personnel, and obtain written statements from such personnel for information relevant to the fact-finding.

I would like to meet with you in person to discuss your observations. Please let me know if you are available to meet on **October 17, 18, or 19**. After we meet, I will provide you a copy of my summary of the discussion for you to comment on before it is finalized.

In the meanwhile, please let me know if you are aware of any other individuals who may have relevant information pertaining to the issues I will be investigating, and, if so, provide me with their names and contact information.

I must advise you that, although the confidentiality of these matters and the identity of all persons involved will be protected to the extent possible and will only be revealed to persons with a need to know, I cannot guarantee that information that you give me will remain confidential because disclosure may be required under certain circumstances. I would also ask that you not discuss this fact-finding investigation with anyone who does not have a need to know about your participation. If you have any questions pertaining to the confidentiality of information or your participation in this investigation, please contact me.

I look forward to meeting you in person. In the meanwhile, please do not hesitate to reach out if you have any questions or concerns.

Thank you for your time,

Liz

Elizabeth M. Whitcher
Office of Regional Counsel
EPA Region 1
5 Post Office Square, ORA-18
Boston, MA 02109
(617)918-1263

Message

From: Euling, Susan [Euling.Susan@epa.gov]
Sent: 10/12/2018 1:41:31 PM
To: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Subject: RE: Fact-finding investigation

Sensitivity: Company Confidential

Thank you!

From: Wooden-Aguilar, Helena
Sent: Thursday, October 11, 2018 9:49 PM
To: Euling, Susan <Euling.Susan@epa.gov>
Subject: Re: Fact-finding investigation
Sensitivity: Confidential

Susan -

Thank you for reaching out. The email is legitimate. What I can share are concerns, related to a leadership assessment, were raised to me and Ms. Whitcher is looking into them. If you have any additional questions please reach out and I will try my best to respond.

Helena

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

On Oct 11, 2018, at 2:45 PM, Euling, Susan <Euling.Susan@epa.gov> wrote:

> Hi Helena,
>
> I received this email (below) from Elizabeth Whitcher. I wanted to verify that this is a legitimate person who can contact me to set up this meeting. And if you could tell me the back story, I would appreciate it.
>
> Thanks,
> Sue
>
> Susan Y. Euling, Ph.D.
> Biologist
> Office of Children's Health Protection (MC 1107T)
> Regulatory Support & Science Policy Division
> U.S. Environmental Protection Agency
> 1200 Pennsylvania Ave., NW
> Washington, DC 20460
> 202-566-2717

From: Whitcher, Elizabeth
Sent: Thursday, October 11, 2018 11:51 AM
To: Euling, Susan <Euling.Susan@epa.gov>
Subject: Fact-finding investigation
Importance: High
Sensitivity: Confidential

Good morning, Susan,

I am a labor/employee relations attorney in EPA Region 1. I am writing to inform you that Helena Wooden-Aguilar, Acting Deputy Chief of Staff, has appointed me to conduct a fact-finding investigation into several concerns that were raised in the course of a 360 leadership assessment conducted in OCHP in 2017-2018. Ms. Wooden-Aguilar has authorized me to inquire into all aspects of this matter, collect and review documents, interview Agency personnel, and obtain written statements from such personnel for information relevant to the fact-finding.

Do you work in the HQ office? If so, I would like to meet with you in person to discuss your observations. Please let me know if you are available to meet on **October 17 or 18**. If you work in a different location, we can do a video-conference. After we meet, I will provide you a copy of my summary of the discussion for you to comment on before it is finalized.

In the meanwhile, please let me know if you are aware of any other individuals who may have relevant information pertaining to the issues I will be investigating, and, if so, provide me with their names and contact information.

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I look forward to meeting you in person. In the meanwhile, please do not hesitate to reach out if you have any questions or concerns.

Thank you for your time,

Liz

Elizabeth M. Whitcher
Office of Regional Counsel
EPA Region 1
5 Post Office Square, ORA-18
Boston, MA 02109
(617)918-1263

Message

From: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Sent: 10/12/2018 1:37:40 AM
To: Grantham, Nancy [Grantham.Nancy@epa.gov]

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

Begin forwarded message:

From: "Firestone, Michael" <Firestone.Michael@epa.gov>
Date: October 11, 2018 at 9:33:59 PM EDT
To: "Wooden-Aguilar, Helena" <Wooden-Aguilar.Helena@epa.gov>
Subject: October 11 -- Greenwire article

FYI

Michael P. Firestone, Ph.D., Acting Director
Office of Children's Health Protection (MC 1107T)
U.S. Environmental Protection Agency
Office: 202-564-2199
Cell Ex. 6

Damage control follows official's mysterious exit

Ariel Wittenberg, E&E News reporter

Published: Thursday, October 11, 2018

Acting EPA Administrator Andrew Wheeler speaking at a recent children's health event at the agency. EPA senior scientist Michael Firestone is seen standing behind him in the center. Kevin Bogardus/E&E News

The Trump EPA is clamoring to defend its commitment to children's health after the ouster of a senior career official prompted a cascade of criticism.

The agency last week mysteriously placed the head of its children's health office on administrative leave, sparking outcry from environmentalists, public health advocates and agency employees. Since then, EPA officials have been trying to shift the narrative, insisting in press conferences, news releases and interviews that the program isn't in jeopardy. Still, critics remain suspicious after the administration has sought major cuts to the already tiny Clinton-era office.

"My discussions in the last couple of weeks is that children's health is incredibly important, it remains a very important issue for EPA, and that's unlikely to change," Michael Firestone, the acting director of EPA's Office of Children's Health Protection, told E&E News this week in an interview at agency headquarters. Firestone, a career scientist who joined the agency more than 30 years ago, became the head of the office last week after Ruth Etzel was put on administrative leave.

Agency officials have declined to give details about Etzel's abrupt departure, saying they don't comment on personnel matters. But the move prompted questions about whether EPA was trying to eliminate the office altogether. EPA has since said that Etzel was placed on leave to allow the agency to review "allegations about the Director's leadership of the office."

It remains unclear when, or if, Etzel will return to the post. She did not respond to requests for comment for this story.

EPA has pushed back against the idea that it is dismantling the office, with acting Administrator Andrew Wheeler saying "nothing could be further from the truth" at an event celebrating children's health last week, where he appeared next to a school bus (***Greenwire***, Oct 1).

Henry Darwin, who is acting as EPA's deputy administrator, stressed his personal commitment to the issue today.

"Growing up with a father who is a pediatrician, there is no denying the fact that I developed an appreciation for children's health issues, and I got to see a lot of those issues firsthand," he said during a meeting of EPA's Children's Health Protection Advisory Committee. Darwin said he "probably would have become a pediatrician myself," had he not fainted while helping his father hold down a child who was getting stitches.

Also last week, EPA spokesman John Konkus' office pre-emptively contacted E&E News, offering to help with a story about the children's health office.

Konkus said he had heard that E&E was working on the story after E&E interviewed members of the Children's Health Protection Advisory Committee and others close to the EPA office. He wrote in an email that the agency wanted to "work with you to ensure E&E has a full and accurate understanding of the office and the important role it plays in protecting human health and the environment."

Konkus agreed to allow an in-person interview with Firestone on the condition that E&E did not ask about Etzel or her status.

The press office also provided an email that EPA Chief of Operations Henry Darwin sent to members of the Children's Health Protection Advisory Committee outlining the administration's commitment to the children's health office.

"Despite of what you may have heard in the media or from people who are unaware of what is actually going on, EPA remains fully committed to protect children's health and will soon announce several initiatives," he wrote. "Dr. Etzel was not placed on leave to diminish EPA's Children's Health Program. Children's Health is an extremely important program for the agency and therefore EPA is seeking a strong leader to move the program forward."

He continued to say that EPA "recognizes one of the most important things we can do to protect our children's future is to make sure they grow up in healthy environments. So, I want to reaffirm one of our top priorities at EPA continues to be the protection of children where they live, learn, and play."

Protecting 'our future'

The children's health office was created in 1997 following an executive order from President Clinton directing agencies to study and find ways to minimize the disproportionate risks toxins can pose to kids.

Just a few years earlier, the National Academy of Sciences had published a study on how children could be more vulnerable to pesticides than adults and recommending a number of regulatory changes. The study is largely credited with making policymakers aware of the differences between how toxins affect kids and adults.

While children had previously been thought of as "little adults," new research had shown that developing bodies have different abilities to process chemicals at different life stages. What's more, children's unique behaviors — like breastfeeding and crawling — make them more likely to come into contact with certain contaminants than adults.

The creation of the new EPA division dedicated resources and attention to those discrepancies, ensuring agency rulemakings and literature reflected them.

For the past 20 years, program staff have participated in working groups for various rulemakings and helped develop agencywide policies on how to factor children's health into regulatory decisions. The children's health office at EPA, along with the Department of Health and Human Services' Agency for Toxic Substances and Disease Registry, also funds and supports a system of Pediatric Environmental Health Specialty Units across the country, which advise pediatricians treating patients who have been exposed to toxins.

"They are the ones translating the science ... into meaningful policy and dialogue. What they do is critical," said Laura Anderko, director of Georgetown University's Mid-Atlantic Center for Children's Health and the Environment.

Firestone arrived at EPA in the mid-1980s, working on risk assessments for the Office of Chemical Safety and Pollution Prevention.

What he saw back then makes the case for a strong children's health office today, he said.

While the agency had been weighing children's exposure to contaminants for some rulemakings, different program offices looked at the issue "in different ways," looking at exposure levels in children of different ages for different regulations, making them "totally incompatible."

One of the first things Firestone worked on when he joined the children's health office in 2000 was guidance for considering kids' exposure when writing regulations.

"If we didn't do that, who would do that for the agency?" he said. "Who would make sure we are consistent? And make sure not just that we care about kids, but that we try to do it in a more consistent, more scientific fashion?"

The office has also made major changes to how EPA thinks about childhood itself, which in turn influences how the agency weighs children's vulnerability to toxins. EPA used to consider children as one "susceptible population," without any distinctions for how developmental, behavioral and weight changes at different ages could influence kids' exposure to contaminants. Now, EPA thinks of childhood as a series of "life stages" — including infancy and adolescence — associated with different behaviors, biology and exposure pathways.

"Children, to me, they are not some little group of people playing over in the kindergarten area — we are all children at some point," Firestone said, noting that exposure to some kinds of chemicals in childhood — like lead — can lead to lifelong problems. "I look at children's health as a critical aspect of human health. If we don't protect children, we're not protecting not only our future, but ourselves."

Trump sought big budget cuts

Public health advocates are still worried about the future of the EPA office and say they don't buy the administration's explanation that Etzel was put on leave due to questions about her leadership.

"Ruth Etzel has played a clear role, knows a lot about lead and other problems," said David Jacobs, chief scientist for the National Center for Healthy Housing, who previously ran the Department of Housing and Urban Development's lead healthy homes program between 1995 and 2005. "This administrative leave is just another chapter in the administration's effort to move people who are skilled scientists to the sidelines so they can't act."

Jacobs and others see Etzel's status as just the latest indication that the Trump EPA is not supportive of the office.

The Trump administration has twice asked Congress to slash the program's budget from $5.4 million to $1.4 million — a cut that would decrease its staff from 15 to five employees. Its staff already represents a small fraction of EPA's roughly 15,000 employees.

Public health advocates became more concerned about the program's future in late September when the Trump administration published an organizational chart for EPA that did not include the children's health office. A more recent chart shared with EPA employees on Oct. 3 did include the division, but by that time, Etzel had been placed on leave.

Anderko of Georgetown University called the proposed budget cuts "like asking one cop to police all of New York City," and said the cuts, coupled with Etzel's leave and the organizational chart, "together seem like the perfect storm."

EPA says the organizational chart issue is a misunderstanding. Spokeswoman Nancy Grantham wrote in an email that the initial organizational chart did not include the office because it was a "high level view of the proposed organization," while the second version from October was a "more detailed chart that included incorporating multimedia programs such as Environmental Education, and Children's Health and the geographical programs into the proposed organization."

Grantham also defended the president's budget request, saying it "focuses agency efforts on activities required by statute" and "supports work in EPA's Office of Children's Health Protection which would continue to coordinate and advance the protection of children's environmental health throughout the agency as a critical part of EPA's mission."

The American Academy of Pediatrics and more than 40 other children's health groups have asked Wheeler for a sit-down meeting, telling him in a letter that placing Etzel on leave "has sent a signal that children's health is not a priority at EPA."

The groups "ask that EPA immediately clarify what action it has taken with regards to Dr. Etzel and with regards to OCHP, and make no further attempts to dismantle, re-organize, diminish or otherwise reduce the abilities and authorities of OCHP."

Maureen Swanson, the co-leader of Project TENDR, a children's health advocacy group whose acronym stands for Targeting Environmental Neuro-Development Risks, agreed.

"OCHP is supposed to be the voice for children throughout the EPA, and if that voice is being sidelined and silenced, which seems like a possibility, that threatens children's health across the board, whether it is water pollution, air pollution or toxic chemicals," she said.

Swanson and Anderko also note that the Trump administration has pursued regulatory rollbacks that could put kids at risk.

Those include EPA's reconsideration of regulations requiring that workers handling pesticides be over the age of 18. While the Trump administration's efforts to repeal the certification and training of pesticide applicators and pesticide worker protection standards have been delayed by litigation, advocates say they are key examples of how EPA has de-emphasized children's health.

Firestone actually worked on both the original minimum age requirements and the reconsideration of those rules.

That means he has provided "the same kind of data" on brain development and impacts from specific pesticides to the pesticide office for both rulemakings, while also researching whether "there is any new data that could make us want to change our minds or come up with a different conclusion," he said.

Asked whether he felt uncomfortable working on an effort to repeal standards many say are protective of children's health, Firestone noted that his office is not itself a regulatory program, instead advising others who write the rules.

"One of the nice things about my job is I'm able to tell people what I think, what I know as a scientist," he said. "Things that go into risk management decisions — whether it is how to manage a risk or rule development — are things that are not under my purview, but I can provide input."

Reporter Kevin Bogardus contributed.

Twitter: @arielwittenberg Email: awittenberg@eenews.net

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GREENWIRE
AN E&E NEWS PUBLICATION

GREENWIRE — Thu., October 11, 2018

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Message

From: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Sent: 10/12/2018 1:36:25 AM
To: Firestone, Michael [Firestone.Michael@epa.gov]
Subject: Re: October 11 -- Greenwire article

Got it. Thanks. Whew.

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

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Michael P. Firestone, Ph.D., Acting Director
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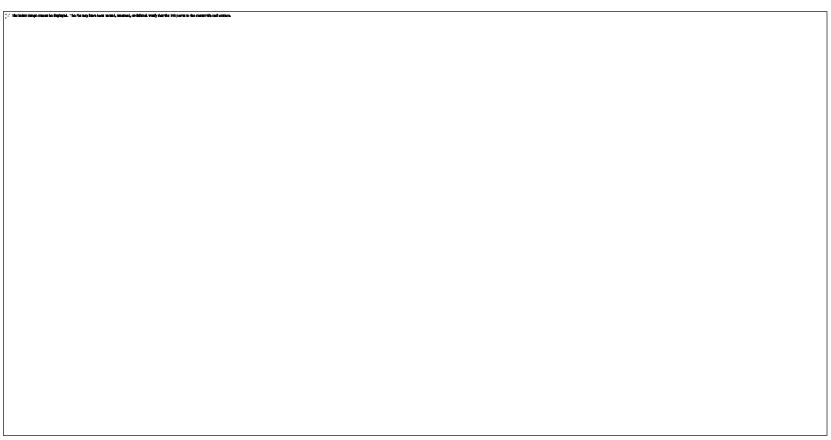
Office: 202-564-2199
Cell: Ex. 6

Damage control follows official's mysterious exit

Ariel Wittenberg, E&E News reporter

Published: Thursday, October 11, 2018



Acting EPA Administrator Andrew Wheeler speaking at a recent children's health event at the agency. EPA senior scientist Michael Firestone is seen standing behind him in the center. Kevin Bogardus/E&E News

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Jacobs and others see Etzel's status as just the latest indication that the Trump EPA is not supportive of the office.

The Trump administration has twice asked Congress to slash the program's budget from $5.4 million to $1.4 million — a cut that would decrease its staff from 15 to five employees. Its staff already represents a small fraction of EPA's roughly 15,000 employees.

Public health advocates became more concerned about the program's future in late September when the Trump administration published an organizational chart for EPA that did not include the children's health office. A more recent chart shared with EPA employees on Oct. 3 did include the division, but by that time, Etzel had been placed on leave.

Anderko of Georgetown University called the proposed budget cuts "like asking one cop to police all of New York City," and said the cuts, coupled with Etzel's leave and the organizational chart, "together seem like the perfect storm."

EPA says the organizational chart issue is a misunderstanding. Spokeswoman Nancy Grantham wrote in an email that the initial organizational chart did not include the office because it was a "high level view of the proposed organization," while the second version from October was a "more detailed chart that included incorporating multimedia programs such as Environmental Education, and Children's Health and the geographical programs into the proposed organization."

Grantham also defended the president's budget request, saying it "focuses agency efforts on activities required by statute" and "supports work in EPA's Office of Children's Health

Protection which would continue to coordinate and advance the protection of children's environmental health throughout the agency as a critical part of EPA's mission."

The American Academy of Pediatrics and more than 40 other children's health groups have asked Wheeler for a sit-down meeting, telling him in a letter that placing Etzel on leave "has sent a signal that children's health is not a priority at EPA."

The groups "ask that EPA immediately clarify what action it has taken with regards to Dr. Etzel and with regards to OCHP, and make no further attempts to dismantle, re-organize, diminish or otherwise reduce the abilities and authorities of OCHP."

Maureen Swanson, the co-leader of Project TENDR, a children's health advocacy group whose acronym stands for Targeting Environmental Neuro-Development Risks, agreed.

"OCHP is supposed to be the voice for children throughout the EPA, and if that voice is being sidelined and silenced, which seems like a possibility, that threatens children's health across the board, whether it is water pollution, air pollution or toxic chemicals," she said.

Swanson and Anderko also note that the Trump administration has pursued regulatory rollbacks that could put kids at risk.

Those include EPA's reconsideration of regulations requiring that workers handling pesticides be over the age of 18. While the Trump administration's efforts to repeal the certification and training of pesticide applicators and pesticide worker protection standards have been delayed by litigation, advocates say they are key examples of how EPA has de-emphasized children's health.

Firestone actually worked on both the original minimum age requirements and the reconsideration of those rules.

That means he has provided "the same kind of data" on brain development and impacts from specific pesticides to the pesticide office for both rulemakings, while also researching whether "there is any new data that could make us want to change our minds or come up with a different conclusion," he said.

Asked whether he felt uncomfortable working on an effort to repeal standards many say are protective of children's health, Firestone noted that his office is not itself a regulatory program, instead advising others who write the rules.

"One of the nice things about my job is I'm able to tell people what I think, what I know as a scientist," he said. "Things that go into risk management decisions — whether it is how to manage a risk or rule development — are things that are not under my purview, but I can provide input."

Reporter Kevin Bogardus contributed.

Twitter: @arielwittenberg Email: awittenberg@eenews.net

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GREENWIRE
AN E&E NEWS PUBLICATION

GREENWIRE — Thu., October 11, 2018

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Message

From: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Sent: 10/8/2018 5:13:26 PM
To: Richardson, RobinH [Richardson.RobinH@epa.gov]; Grantham, Nancy [Grantham.Nancy@epa.gov]; Darwin, Veronica [darwin.veronica@epa.gov]
Subject: Fwd: Re:
Attachments: draft responses OCHP.docx; ATT00001.htm

Here is my rough draft.

Robin - is Troy going to have his staffer revise?

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

Begin forwarded message:

> **From:** "Wooden-Aguilar, Helena" <Wooden-Aguilar.Helena@epa.gov>
> **Date:** October 8, 2018 at 1:10:30 PM EDT
> **To:** "Jackson, Ryan" <jackson.ryan@epa.gov>
> **Cc:** "Leopold, Matt (OGC)" <Leopold.Matt@epa.gov>, "Darwin, Veronica" <darwin.veronica@epa.gov>, "Lyons, Troy" <lyons.troy@epa.gov>, "Vizian, Donna" <Vizian.Donna@epa.gov>
> **Subject: Re:**
>
> Ryan- attached is a first cut. I will work with Donna, OGC, Veronica, and others on formatting and moving this through quickly for your/Troy's review.
>
> Helena

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

On Oct 5, 2018, at 11:32 AM, Jackson, Ryan <jackson.ryan@epa.gov> wrote:

All – we received the attached letter which I would like to respond too soon rather than later which I think will be an easy response.

The response can be signed by Troy like normal, but Helena will you take on drafting the first draft of the response?

I'm cc'ing you because I think the response needs to be that the Office of Children's Health remains an important office within EPA and a description of what it continues to do and can be the answer to the first individual question. We can say that there are no discussions about reorganizing the Office of Children's Health and no plans to reduce funding and shift resources. The answer to question 5 is that EPA involves the Office of Children's Health in its proposed actions as it normally has done and will continue to do. Finally the last question's answer is that while allegations are being investigated, the office will be directed by Dr. Michael Firestone, a career EPA employee for over 30 years with 18 years experience as the senior science director of the Office of Children's Health.

I would like to provide an answer on their request for an examination of the personnel action, but I'm not sure what we can commit to so I am asking for your specific contribution to that part of the letter.

Finally, I just wanted to ask for your quick review to ensure that we are comfortable with the proposed answers.

Thanks.

Ryan Jackson
Chief of Staff
U.S. Environmental Protection Agency
Ex. 6

<EPA - To Wheeler - Udall et. al - re Office of Childrens Health Protection - (10.4.18).pdf>

Message

From: Cortes, Emilio [Cortes.Emilio@epa.gov]
Sent: 10/9/2018 3:13:54 PM
To: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Subject: RE: Letter re Investigative Leave

Ok.

From: Wooden-Aguilar, Helena
Sent: Tuesday, October 9, 2018 11:13 AM
To: Cortes, Emilio <Cortes.Emilio@epa.gov>
Subject: RE: Letter re Investigative Leave

It needs to go today so I am going to ask Eileen if she can assist.

From: Cortes, Emilio
Sent: Tuesday, October 09, 2018 11:12 AM
To: Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>
Subject: RE: Letter re Investigative Leave

Ok,

I can handle it first thing tomorrow am.

From: Wooden-Aguilar, Helena
Sent: Tuesday, October 9, 2018 11:11 AM
To: Cortes, Emilio <Cortes.Emilio@epa.gov>
Subject: RE: Letter re Investigative Leave

Its sensitive for Ruth. I would prefer you handled it. I may want to ask OARM.

From: Cortes, Emilio
Sent: Tuesday, October 09, 2018 11:11 AM
To: Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>
Subject: RE: Letter re Investigative Leave

Helena,

Yes, Donna can assist.

From: Wooden-Aguilar, Helena
Sent: Tuesday, October 9, 2018 11:09 AM
To: Cortes, Emilio <Cortes.Emilio@epa.gov>
Subject: FW: Letter re Investigative Leave

I will need an overnight and return receipt materials. Who can I work with? Donna?

From: Coomber, Robert
Sent: Tuesday, October 09, 2018 10:43 AM
To: Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>
Cc: Patterson, Nicole <Patterson.Nicole@epa.gov>
Subject: Letter re Investigative Leave

Helena,

Attached is a draft letter for investigative leave. Ideally we will overnight this, and send it via return receipt. Let me know if you want me to help on the logistics.

Best,

Bob

Robert D. Coomber
Senior Labor Attorney
Labor and Employee Relations Division
Desk Phone: (202) 564-0955
Cell Phone: Ex. 6
coomber.robert@epa.gov

Message

From: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Sent: 10/8/2018 10:33:29 PM
To: Firestone, Michael [Firestone.Michael@epa.gov]
CC: Grantham, Nancy [Grantham.Nancy@epa.gov]
Subject: Re: Senators Demand Full Transparency on EPA's Plans for Children's Health Office

Yup. Will do

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

On Oct 8, 2018, at 6:22 PM, Firestone, Michael <Firestone.Michael@epa.gov> wrote:

> Helena
>
> Please let me know if our office can assist in drafting and/or reviewing the response.
>
> Thanks.
>
> Michael P. Firestone, Ph.D., Acting Director
> Office of Children's Health Protection (MC 1107T)
> U.S. Environmental Protection Agency
> Office: 202-564-2199
> Cell: Ex. 6
>
> On Oct 8, 2018, at 5:49 PM, Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov> wrote:
>
>> Thanks. We have received the congressional letter and plan to respond. Please let your staff know.
>>
>> Helena Wooden-Aguilar
>> Acting Deputy Chief of Staff
>> U.S. Environmental Protection Agency
>> 202-564-0792 (Work)
>> Ex. 6 (Cell)
>> wooden-aguilar.helena@epa.gov
>>
>> On Oct 8, 2018, at 5:25 PM, Firestone, Michael <Firestone.Michael@epa.gov> wrote:
>>
>>> FYI
>>>
>>> Michael P. Firestone, Ph.D., Acting Director
>>> Office of Children's Health Protection (MC 1107T)

U.S. Environmental Protection Agency
Office: 202-564-2199
Cell: Ex. 6

Begin forwarded message:

From: "Dzubow, Rebecca" <Dzubow.Rebecca@epa.gov>
Date: October 8, 2018 at 4:55:37 PM EDT
To: AO-OCHP-Everyone <AOOCHPEveryone@epa.gov>
Subject: Senators Demand Full Transparency on EPA's Plans for Children's Health Office

OCTOBER 05, 2018

Senators Demand Full Transparency on EPA's Plans for Children's Health Office

After director of children's health office was abruptly put on leave, Senate Appropriators Udall, Reed, Merkley, Durbin, Murray send letter demanding answers about future of EPA's mission of protecting children's health

WASHINGTON - U.S. Senators Tom Udall (D-N.M.), Jack Reed (D-R.I.), Jeff Merkley (D-Ore.), Dick Durbin (D-Ill.), and Patty Murray (D-Wash.)wrote to Environmental Protection Agency (EPA) Acting Administrator Andrew Wheeler expressing their strong concern over the future of the EPA's Office of Children's Health Protection (OCHP) and the EPA's mission to safeguard the health of America's youth in light of recent reports. The letter follows EPA's unexplained placement of the OCHP Director, Dr. Ruth Etzel, on administrative leave and widespread stakeholder concerns about the future of the office and its mission to ensure children's health is a priority in EPA decisions.

Udall is ranking member of the Senate Appropriations subcommittee overseeing EPA's budget and Reed, Merkley, Durbin and Murray are all members of the Senate Appropriations Committee.

"We recognize the important role that EPA's Office of Children's Health Protection plays as one of the only offices that addresses the impact of EPA regulations and policies on the health of America's infants, children, and young adults," **the senators wrote to Wheeler**. "Infants and children are uniquely vulnerable to environmental contaminants and face disproportionate exposure to environmental factors that negatively affect health."

"We are concerned about the future of this office and ensuring that all EPA actions and programs continue to address the unique vulnerabilities of children, " **the senators continued.** "We expect that any proposed changes to the OCHP would not be initiated or implemented

without the required approval from the Appropriations Committee."

In the letter, the senators sought answers to six important questions about the future of the office, along with an explanation of the personnel action taken against Dr. Etzel, and personal assurance from Wheeler that all EPA policies, actions, and programs will continue to protect the unique vulnerabilities of children. They seek direct responses about the EPA's long-term plans for the Office of Children's Health Protection (OCHP) and funding and resource allocations by October 18, 2018.

The full text of the letter is available below and here.

Dear Acting Administrator Wheeler:

As strong supporters of prioritizing children's health, we are concerned by recent reports about the Environmental Protection Agency's plans for the Office of Children's Health Protection, which is critical to protecting the health of America's infants, children, and young adults from environmental risks. We write to express our strong support of the EPA's Office of Children's Health Protection, and remain concerned regarding the protection of children's health by the EPA. Many stakeholders are concerned about the future of this office and EPA's mission regarding children's health, after EPA's recent decision that the Director of EPA's Office of Children's Health Protection has been put on administrative leave. We also are alarmed about the negative impacts that this abrupt move could have on protecting the health of America's children and request additional information about the

future of EPA's Office of Children's Health Protection (OCHP).

We recognize the important role that EPA's Office of Children's Health Protection plays as one of the only offices that addresses the impact of EPA regulations and policies on the health of America's infants, children, and young adults. Infants and children are uniquely vulnerable to environmental contaminants and face disproportionate exposure to environmental factors that negatively affect health. The OCHP, an office established over 20 years ago, is an incredibly important office dedicated to protecting America's children from environmental health risks. We are concerned about the future of this office and ensuring that all EPA actions and programs continue to address the unique vulnerabilities of children.

As a reminder, the Explanatory Statement for the Consolidated Appropriations Act, 2018 (P.L. 115-141) continues longstanding General Guidelines for Reprogramming that require agencies funded by the Department of the Interior, Environment and Related Agencies subcommittee to submit reorganization proposals for Committee review prior to implementation, including reorganizations of significant national importance and organizations that include any closures, transfers of functions, and consolidations. We expect that any proposed changes to the OCHP would not be initiated or implemented without the required approval from the Appropriations Committee.

In order to address these concerns, we seek responses to the following questions about EPA's decisions to continue to prioritize protecting children's health.

1.What are EPA's long-term plans for the Office of Children's Health Protection?

2.Have there been discussions about reorganizing the Office of Children's Health Protection? If so, why?

3.Are there any plans to reorganize the Office of Children's Health Protection? If so, what are those plans?

4.Are there plans to reduce funding or shift resources related to the staff, authorities and work of the Office of Children's Health Protection?

5.How do you address proposed rules and regulations that are in conflict with concerns raised by the Office of Children's Health Protection?

6.What is the plan for permanently filling the role of Director at EPA's Office of Children's Health Protection?

In addition, we request a full and complete explanation of the facts and purposes behind the personnel action taken against Dr. Etzel, the Director of OCHP, in order to assure Congress and the public that the leadership of this office is being handled appropriately, and according to the laws and agency procedures governing career civil service protections.

We urge the EPA to continue the work of the Office of Children's Health Protection to ensure that EPA's regulations and policies adequately protect the public health of America's infants, children, and young adults. In addition, we request that EPA answer these questions for Congress and the public as soon as possible, and no later than October 18, 2018.

Sincerely

https://www.tomudall.senate.gov/news/press-releases/senators-demand-full-transparency-on-epas-plans-for-childrens-health-office

~~~~~~

Rebecca C. Dzubow, MPH, MEM
Health Scientist
U.S. EPA Office of Children's Health Protection | Regulatory Support and Science Policy Division
1200 Pennsylvania Avenue, NW (1107T) | Washington, DC 20460
(202) 564-0967
~~~~~~

Message

From: Firestone, Michael [Firestone.Michael@epa.gov]
Sent: 10/4/2018 10:01:08 PM
To: Grantham, Nancy [Grantham.Nancy@epa.gov]; Hackel, Angela [Hackel.Angela@epa.gov]; Foos, Brenda [Foos.Brenda@epa.gov]
CC: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Subject: RE: E and E News Question
Attachments: EHP - Two Decades of Enhancing Children's Environmental Health Protection at the U.S. Environmental Protection Agency.pdf

Nancy

For an overview of OCHP activities, I've attached an article I was the lead author on titled: Two Decades of Enhancing Children's Environmental Health Protection at the U.S. Environmental Protection Agency.

Specifically, with regard to regulations, regulations I have personally worked on in the past include:

- Certification & Training (C&T) of Pesticide Applicators [FIFRA]
- Pesticide Worker Protection Regulations
- 2008 Lead NAAQS

Ongoing regulations I've recently worked on include:

- National Primary Drinking Water Regulations: Regulation of Perchlorate
- Endangerment Finding for Lead Emissions from Piston-Engine Aircraft Using Leaded Aviation Gasoline
- Certification of Pesticide Applicators (CPA) Rule; Reconsideration of the Minimum Age Requirements
- Agricultural Worker Protection Standard (WPS); Reconsideration of Several Requirements Incl. Rescinding Childhood Age Restrictions

Regulatory workgroups other OCHP staff are currently participating on other include:

- "Lead; Renovation, Repair, and Painting Program for Public and Commercial Buildings [TSCA Section 402(c)(3)]"
- National Primary Drinking Water Regulations for Lead and Copper: Regulatory Revisions
- Lead; Residential Lead Dust Hazard Standards [TSCA Section 403]
- Trichloroethylene (TCE) - TSCA Section 6(a); aerosol degreasing and spot cleaning in dry cleaning facilities
- Trichloroethylene (TCE); Rulemaking Under TSCA §6(a); Vapor Degreasing
- Paint Removers - Methylene Chloride (MC) and N-Methylpyrrolidone (NMP) - TSCA Section 6(a)
- Cyanotoxin Ambient Water Quality Criteria for Recreational Waters
- Regulation of Persistent, Bioaccumulative and Toxic (PBT) Chemicals under TSCA 6 (h)
- Regulatory Determinations for CCL 4
- National Primary Drinking Water Regulations: Group Regulation of Carcinogenic Volatile Organic Compounds (VOCs)
- "Polychlorinated Biphenyls (PCBs); Reassessment of Use Authorizations [TSCA Section 6(e)]"
- "Lead Wheel Weights; Regulatory Investigation [TSCA Section 21]"
- PM NAAQS Review
- Review of National Ambient Air Quality Standards (NAAQS) for Sulfur Dioxide (SO2)

I hope this helps.

Michael P. Firestone, Ph.D., Acting Director
Office of Children's Health Protection (MC 1107T)

U.S. Environmental Protection Agency
Office: 202-564-2199
Cell: Ex. 6

From: Grantham, Nancy
Sent: Thursday, October 04, 2018 5:35 PM
To: Firestone, Michael <Firestone.Michael@epa.gov>; Hackel, Angela <Hackel.Angela@epa.gov>; Foos, Brenda <Foos.Brenda@epa.gov>
Cc: Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>; Grantham, Nancy <Grantham.Nancy@epa.gov>
Subject: E and E News Question

Hi Michael and Angela,

Please see below a question from Ariel Wittenberg of E and E News. Can OCHP provide draft information on this issue by 12 noon tomorrow? thanks ng

Also, I understand that OCHP, generally, advocates for children in EPA policies, but I'm particularly interested in finding concrete examples of rulemakings or other initiatives OCHP staff have contributed to. Any examples you'd like to share would be welcome.

Nancy Grantham
Office of Public Affairs
US Environmental Protection Agency
202-564-6879 (desk)
Ex. 6 **(mobile)**

A Section 508–conformant HTML version of this article is available at http://dx.doi.org/10.1289/EHP1040.

Two Decades of Enhancing Children's Environmental Health Protection at the U.S. Environmental Protection Agency

http://dx.doi.org/10.1289/EHP1040

SUMMARY: This article provides an overview of public health efforts by the U.S. Environmental Protection Agency (EPA) during the past two decades to protect children's health from environmental hazards. It highlights examples of concrete steps and accomplishments toward improving environmental protection and health outcomes achieved through public policy, rules and regulations, increased scientific understanding, and public health messaging. Additionally, examples of future challenges for better understanding and improving children's environmental health are discussed.

Introduction

Children do not react like adults when exposed to environmental chemicals because their organ systems and metabolic capabilities are not fully developed. Children eat, breathe, and drink more, relative to their body mass, than adults. Their exposures to environmental chemicals differ from that of adults due to child-specific behaviors, such as hand-to-mouth and object-to-mouth activities, crawling on the ground, and breastfeeding. Meanwhile, research shows that exposures to environmental chemicals in homes, schools, food, and common household products may be associated with chronic conditions such as asthma, diabetes, obesity, attention-deficit disorders, learning disabilities, and autism (OUP 2013).

The efforts of the U.S. Environmental Protection Agency (EPA) to enhance consideration of the potential for early-life susceptibility stem from the 1993 National Research Council's "Pesticides in the Diets of Infants and Children" (NRC 1993) and the subsequent 1996 Food Quality Protection Act (FQPA 1996). Twenty years ago, this legislative change to the regulation of pesticides initiated an unprecedented drive by the U.S. EPA to explicitly consider the unique exposure pathways of children versus those of adults. This summer, President Obama signed the Frank R. Lautenberg Chemical Safety for the 21st Century Act (2016), which reforms the 1976 Toxic Substance Control Act (1976) by directing the U.S. EPA to make an affirmative finding on the safety of a new chemical or a significant new use of an existing chemical before it is allowed into the marketplace. These revisions, 40 years in the making, provide a fresh opportunity for the U.S. EPA to further protect children's environmental health by requiring the agency to address unreasonable risks to those who may be the most susceptible including children and pregnant women.

Discussion

Early Drivers for Focusing on Children's Environmental Health

In 1988, when the U.S. EPA attempted to ease restrictions on several pesticides that posed a *de minimis* cancer risk to humans, the Natural Resources Defense Council brought suit and prevailed. The court stated that only Congress could change the provision designed to protect the public from carcinogens in processed foods and animal feeds in the Food Additives Amendment of 1958, known as the Delaney Clause (Hoyle 1996). Also in 1988, the Congress responded to public concerns about pesticide safety by requesting that the National Academy of Sciences study the issue of vulnerability of children to pesticides residues in foods. The resulting 1993 report "Pesticides in the Diets of Infants and Children" (NRC 1993) made several recommendations for changes in pesticide regulations to protect children's environmental health, including accounting for the unique exposures of children and improving risk assessment methods to estimate the magnitude of the effects of these exposures on infants and children. This NRC report was a principal driver in ultimately elevating awareness among national policy makers of children's vulnerability to toxic hazards, thereby moving U.S. environmental policy toward enhanced protection of children's health and catalyzing research investment (Landrigan 2016). As a compromise to address both the public's concern with protecting children and industry's concern with the inflexibility of the Delaney Clause, the U.S. Congress revoked the Delaney Clause (Appel 1995) and then enacted the FQPA. It was passed unanimously by Congress and then signed into law by former President Clinton in 1996.

The FQPA included a number of provisions to better protect children starting with the use of an additional 10-fold safety factor when setting or reassessing tolerances for pesticides in foods unless adequate data are available to support a different factor. Other provisions that could address potential risk included screening pesticides for endocrine disruption, assessing aggregate exposure from both food and residential uses, and accounting for cumulative exposure to pesticides that have common mechanisms of toxicity.

Building Children's Environmental Health Protection at the U.S. EPA

Recognizing the imperative to protect the health of children, in 1995 the U.S. EPA issued its Policy on Evaluating Health Risks to Children (U.S. EPA 1995) directing the agency to explicitly and consistently take into account environmental health risks to infants and children in all risk characterizations and public health standards set for the United States (U.S. EPA 1995). In 2013, the U.S. EPA reaffirmed this policy and stressed the importance of "...encourag(ing) much-needed research to provide child-specific data required to thoroughly evaluate the health risks children in all life stages face from pollution in our air, land and water" (U.S. EPA 2013c).

Expanding the scope of federal protections, from the U.S. EPA to the myriad of agencies with responsibility for children's health, former President Clinton issued Executive Order 13045 entitled "Protection of Children from Environmental Health Risks and Safety Risks" (The President 1997). The Executive Order required all federal agencies to assign a high priority to addressing health and safety risks to children, improve coordination of research priorities on children's health, and ensure that federal standards take into account special risks to children.

The Executive Order required the creation of the "President's Task Force on Environmental Health Risks and Safety Risks to Children" (https://www.epa.gov/children/presidents-task-force-environmental-health-and-safety-risks-children) to help implement the order across the federal government. To date, the task force, co-chaired by the U.S. EPA and the Department of Health and Human Services (DHHS), has focused on issues including lead, racial and ethnic asthma disparities, healthy homes, chemical exposures, and climate change.

The U.S. EPA created its Office of Children's Health Protection (OCHP) in 1997. Although the agency's mission has always been to protect human health and the environment, C.M. Browner and subsequent agency leaders have recognized that protecting children from

ED_002399_00044614-00001

environmental hazards required explicit and dedicated resources. The office promotes the protection of children by leading and/or partnering with other parts of the agency to ensure that actions by the U.S. EPA take into account any heightened risks faced by children, to help identify research gaps, and to encourage and expand health outreach efforts.

Raising Awareness of Children's Environmental Health

Reaching parents. The U.S. EPA's outreach and education efforts are designed to gather together the most important suite of key issues and public health messages on a given topic and share it widely. Outreach materials on topics such as asthma prevention, secondhand smoke, and impacts of climate change on children are available at the agency's "Protecting Children's Environmental Health" web site (https://www.epa.gov/children).

Reaching health care providers. In the field of pediatrics, concerns about environmental influences on disease were infrequently considered in the 1990s. A 1995 Institute of Medicine report identified the lack of curricula on topics in environmental medicine in the training of physicians (IOM 1995). In order to increase the knowledge of practicing medical and nursing providers, the U.S. EPA has supported the development of and promoted the use of numerous training courses, information tools, manuals, and educational opportunities such as *Recognition and Management of Pesticide Poisonings* now in its 6th edition (U.S. EPA 2016). In 1999, with funding from the U.S. EPA, the American Academy of Pediatrics (AAP) first published its *Handbook of Pediatric Environmental Health*—a seminal accomplishment for building an academic foundation for children's environmental health—the 3rd edition was published in 2012 (AAP 2012). Additional outreach materials can be found online at the agency's "Children's Environmental Health: Online Resources for Healthcare Providers" (https://www.epa.gov/children/childrens-environmental-health-online-resources-healthcare-providers).

Spurred by the lack of environmental health training among pediatricians, the "Pediatric Environmental Health Specialty Units" (PEHSU; http://www.pehsu.net/)—a network of experts in reproductive and children's environmental health—has been jointly funded by the U.S. EPA and the Agency for Toxic Substances and Disease Registry to provide medical advice, outreach, and training about prevention, diagnosis, treatment, and management of environmental health illnesses for children. From 1999 to 2014, PEHSU conducted approximately 8,000 consultations and educational activities, reaching more than 700,000 individuals (Woolf et al. 2016).

Informing safer school environments. Across the U.S. EPA, numerous efforts to address air quality, drinking water, and chemical safety in school environments represent ongoing federal assistance to local school districts in protecting America's 53 million school children who will spend their formative years in environments potentially affected by numerous environmental threats. This effort was amplified with the Energy Independence and Security Act of 2007 (2007) that mandated "School Siting Guidelines" (U.S. EPA 2011d). These voluntary guidelines are designed to inform and improve the school siting decision-making process. Much additional information and tools to help establish, maintain, or enhance a school environmental health program can be found at U.S. EPA's "Healthy Schools, Healthy Kids" website (https://www.epa.gov/schools).

Addressing Early Life-Stage Risks

Exposure assessment. In the early 2000s, the U.S. EPA began a process to consider how behavioral and physiological changes associated with childhood life stages could impact exposures to environmental hazards. Although environmental laws have referred to children as a subpopulation, two important risk assessment guidance documents published by the U.S. EPA in the mid-2000s emphasized the importance of distinguishing between population groups that form a relatively fixed portion of the population (e.g., groups based on ethnicity) and life stages or age groups that are inclusive of the entire population. The term "life stage" refers to a distinguishable time frame in an individual's life characterized by unique and relatively stable behavioral and/or physiological characteristics that are associated with development and growth. Thus, the U.S. EPA is evolving to view childhood as a sequence of life stages, including infancy and adolescence through adulthood, rather than considering children as a fixed subpopulation.

In 2005, the U.S. EPA's "Guidance on Selecting Age Groups for Monitoring and Assessing Childhood Exposures to Environmental Contaminants" (U.S. EPA 2005a) was published. This report considers unique behaviors of children such as breastfeeding, crawling, and hand-to-mouth and object-to-mouth activities. The development of a standard set of age groupings (see Table 1) is critical for developing risk assessments that adequately consider early life exposures and for focusing future research and data collection efforts toward a goal of addressing all significant variations in life stage (Firestone et. al. 2007; Firestone 2010). The U.S. EPA's guidance helped inform the development of similar guidance by the World Health Organization (Cohen Hubal et al. 2014).

To support implementation of the guidance, the U.S. EPA published the "Child-Specific Exposure Factors Handbook" (U.S. EPA 2008a). The information in this report has been incorporated in the Agency's updated document entitled "Exposure Factors Handbook 2011 Edition" (U.S. EPA 2011a). The Handbook provides information on various physiological and behavioral factors to be used in assessing exposure, arrayed by the life stages and age groups as defined in the 2005 guidance on age groupings (U.S. EPA 2005a).

An example of the application of these exposure tools is the use of both the age-grouping guidance and exposure factors handbook data in "Perchlorate Supplemental Request for Comments" (see Table 2 in U.S. EPA 2009). This analysis informed the agency's 2011 announcement that perchlorate meets the Safe Drinking Water Act criteria for a positive regulatory determination (U.S. EPA 2011b).

Risk assessment. An adage in the field of toxicology attributed to the Swiss scientist Paracelsus (1493–1541) is that "the dose makes the poison." This simplification does not take into account two potentially important factors. The first involves the issue of timing of exposure or dose, as some chemicals exhibit unique and enhanced toxicity during critical windows of development that can impact the nature and severity of disease (Selevin et al. 2000). The second factor relates to endocrine-disrupting chemicals whose effects may be very different at low doses than at high doses (Vandenberg et al. 2012).

Incorporation of new information regarding early life-stage susceptibility represented a key challenge in the U.S. EPA's almost 20-year effort to update its 1986 "Guidelines for Carcinogen Risk Assessment" (U.S. EPA 1986). The Agency ultimately developed two guidance documents in 2005—a revised "Guidelines for Carcinogen Risk Assessment" (U.S. EPA 2005b) and a companion "Supplemental Guidance for Assessing Susceptibility from Early-life Exposure to Carcinogens" (U.S. EPA 2005c). The supplemental guidance was not included as a part of the 2005 revised cancer guidelines because the field of early life-stage susceptibility was thought to be actively changing; thus, revising and updating the guidance could be

Table 1. Children's age groups for exposure assessment (U.S. EPA 2005a).

Groups < 1 year old	Groups > 1 year old
Birth to < 1 month	1 to < 2 years
1 to < 3 months	2 to < 3 years
3 to < 6 months	3 to < 6 years
6 to < 12 months	6 to < 11 years
	11 to < 16 years
	16 to 21 years

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performed in a more expeditious manner than would be required for a major U.S. EPA risk assessment guideline.

The supplemental guidance, based upon an analysis of data for more than 50 chemicals causing cancer through perinatal exposure, concluded that cancer risks generally are higher from early-life exposure than from similar levels of exposure later in life, especially for mutagenic carcinogens. The guidance recommends the use of age-dependent adjustment factors (ADAFs) for those cases where chemical specific data are lacking when assessing cancer risk, but only for carcinogens that act via a mutagenic mode of action:

- For exposures before 2 years of age, a 10-fold adjustment.
- For exposures between 2 and < 16 years of age, a 3-fold adjustment.
- For exposures after turning 16 years of age, no adjustment.

The supplemental guidance states that "development of guidance for estrogenic agents and chemicals acting through other processes resulting in endocrine disruption and subsequent carcinogenesis, for example, might be a reasonable priority in light of the human experience with diethylstilbesterol and the existing early-life animal studies" (U.S. EPA 2005c). Additionally, the National Research Council (NRC) in their "Science and Decisions" report observed that "in practice, EPA treats the prenatal period as devoid of sensitivity to carcinogenicity ... and that EPA needs methods for explicitly considering in cancer risk assessment *in utero* exposure and chemicals that do not meet the threshold of evidence that the agency is considering for judging whether a chemical has a mutagenic mode of action. Special attention should be given to hormonally active compounds and genotoxic chemicals that do not meet the threshold of evidence requirements" (NRC 2009).

To follow up on these findings, research is needed in addressing cancer risk resulting from early-life exposure to carcinogens.

Addressing Children's Environmental Health through the Development of the U.S. EPA's Rules and Regulatory Support

In order to implement environmental laws passed by Congress and signed by the President, the U.S. EPA develops and enforces environmental regulations. The Agency has authority under more than twenty statutes, including the Clean Air Act Amendments of 1990 (1990), the Safe Drinking Water Act (2002), and the Toxic Substances Control Act of 1976 (1976). Addressing children's environmental health in regulatory actions is a central part of the U.S. EPA's work to protect children. In addition to the three key statutory authorities explicitly calling for children's health protection—FQPA, Safe Drinking Water Act, and Toxic Substances Control Act—children are generally identified as a sensitive, susceptible, or vulnerable group under the authorities granted by other statutes.

The U.S. EPA's "Action Development Process: Guide to Considering Children's Health When Developing EPA Actions" (U.S. EPA 2006b) provides information for considering children's environmental health in regulatory actions, such as what type of children's health information should be described, questions for risk assessors, and how to present children's health considerations to decision makers. Examples in the next section are intended to provide insight into various types of regulatory approaches taken by the U.S. EPA, including updating existing regulatory standards to better protect children, expanding regulatory action that did not previously focus on children, and developing new standards in which protection of children from emerging threats is a key driver.

National Ambient Air Quality Standards for Lead—2008 Revisions

Since the time of initial publication in 1978, the goal of the National Ambient Air Quality Standards (NAAQS) for lead (Pb) has been to protect children from the neurodevelopmental effects of airborne lead exposure (U.S. EPA 1978). Under authority granted by the Clean Air Act, the 1978 standard set the level at 1.5 $\mu g/m^3$ and acknowledged that young children (1–5 years old) should be regarded as a group within the general population that is particularly sensitive to lead. Based on new scientific information regarding adverse neurodevelopmental outcomes (U.S. EPA 2006a, 2013c), the Agency lowered the Pb NAAQS by an order of magnitude to 0.15 $\mu g/m^3$ in 2008 (U.S. EPA 2008b). The preamble to this revision recognizes that "(t)here is no level of Pb exposure that can yet be identified, with confidence, as clearly not being associated with some risk of deleterious health effects" and further describes children to be at increased risk due to various factors that enhance their exposures such as hand-to-mouth activity.

The public health impact of the U.S. EPA's regulatory actions, including the banning of lead in paint and automotive gasoline in the 1970s and 1980s, has resulted in a significant reduction of children's exposure to lead. The U.S. EPA's "America's Children and the Environment" (https://www.epa.gov/ace) indicators report shows that the median concentration of lead in the blood of children between the ages of 1 and 5 years dropped from 15 μg/dL in 1976–1980 to 1.0 μg/dL in 2011–2012, a decrease of 93% (U.S. EPA 2015a; see Indicator B1: https://www.epa.gov/ace/biomonitoring-lead).

Several studies have reported that reducing lead exposure was associated with a reduction in criminal behavior (Carpenter and Nevin 2010; Muennig 2009; Wright et al. 2008).

Restriction in Organophosphate Pesticide Registrations Including Residential Use Cancellations in 2000

Chlorpyrifos and other organophosphate (OP) pesticides are thought to act through a common mode of action by inhibiting nerve function through inhibition of acetylcholinesterase (Mileson et al. 1998). Prior to 2000, chlorpyrifos was the most widely used household pesticide in the United States and was registered for home uses such as outdoor broadcast lawn treatment and indoor crack and crevice treatment. In an effort to protect children, all residential uses (except for roach bait stations in child resistant packaging and fire ant mound treatments) were eliminated in 2000 due to a concern about developmental neurotoxicity of chlorpyrifos (U.S. EPA 2000a).

In addition, many agricultural uses of OPs were also restricted (e.g., tomatoes) or discontinued or cancelled (e.g., apples, citrus, and tree nuts). The risk assessment supporting these actions retained the 10-fold safety factor defined by the FQPA for the protection of children (U.S. EPA 2000b). The U.S. EPA illustrates the reduction in detectable OP pesticide residues in some fruits and vegetables over a 10-year period beginning in the late 1990s (U.S. EPA 2013a; see Indicator E9: https://www.epa.gov/ace/environments-and-contaminants-chemicals-food).

Scientific information on risks associated with chlorpyrifos exposure continues to develop, further illustrating risks to children's health. Based on a revised risk assessment identifying drinking water and occupational risks (U.S. EPA 2014), the U.S. EPA has proposed a cancellation of all remaining food tolerances for chlorpyrifos (U.S. EPA 2015c).

Control of Greenhouse Gas Emissions from Light-Duty and Medium- and Heavy-Duty Vehicles—2011–2012

In recent years, the U.S. EPA has established new regulations to address climate change under the authority granted by the Clean Air Act. The final rules controlling emissions of greenhouse gasses from light-duty (cars and light trucks) and medium- and heavy-duty vehicles are examples of such standards (U.S. EPA 2011c, 2012). In limiting greenhouse gas emissions, the U.S. EPA is addressing threats to public health, including children's health, associated with climate change. In its continued effort to address climate change, the Agency has proposed Phase 2 of the Greenhouse Gas Emissions Standards

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and Fuel Efficiency Standards for medium- and heavy-duty engines and vehicles (U.S. EPA 2015d), among other actions to adapt and mitigate climate change.

Children's Environmental Health Research

Building on the imperative of the Executive Order 13045, the U.S. EPA and the National Institute of Environmental Health Sciences (NIEHS) have jointly funded the Children's Environmental Health and Disease Prevention Research Centers since 1998. These multidisciplinary research centers examine how environmental factors affect children's health and promote translation of basic research findings into intervention and prevention methods to prevent adverse health outcomes [see U.S. EPA (https://www.epa.gov/research-grants/niehsepa-childrens-environmental-health-and-disease-prevention-research-centers) and NIEHS (https://www.niehs.nih.gov/research/supported/centers/prevention/)].

Examples of emerging areas of research include understanding the role of environmental factors in the public health epidemic of obesity among our nation's children; determining how widespread are exposures to chemicals that interfere with the body's hormones affecting children; and identifying how epigenetic modifications to DNA resulting from diet, aging, stress, and environmental exposures affect our children and our grandchildren.

Recently, the U.S. EPA published its "Children's Environmental Health Research Roadmap" (U.S. EPA 2015b). In response to the EPA's unique mandate to understand the role of exposure to environmental hazards during early life, this research roadmap presents a vision for providing integrated, cutting-edge science on children's environmental health to inform agency decisions. The research described in this roadmap includes efforts by agency researchers as well as externally funded scientists such as the Centers described above.

Future Challenges

Although the U.S. EPA has taken many actions during the past two decades to improve children's health protection, important challenges remain. Perhaps the most daunting challenge is understanding and mitigating, to the degree possible, the impacts of climate change on children. The U.S. Global Change Research Program has released a new report—"The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment" (USGCRP 2016) that includes information on those most vulnerable including children and pregnant women. The effects of climate change on children's health include physical and psychological impacts of weather disasters, increased heat stress, decreased air quality, altered disease patterns, and impacts on the availability of food and clean water (Ahdoot et al. 2015).

Implementing the newly enacted 2016 Frank R. Lautenberg Chemical Safety for the 21st Century Act (2016), which amends the Toxic Substances Control Act, represents an opportunity to improve protection of "potentially exposed or susceptible sub-populations … such as infants, children, (and) pregnant women" from exposure to industrial chemicals. The new provisions allow for greater opportunity to take action to address potential health risks from both new and existing toxic chemicals with explicit considerations for infants, children, and pregnant women.

The U.S. EPA continues to explore incorporating new research in its risk assessment methodology. While many advancements have been made in children's health risk assessment, there are still many research needs including the following:

- Improved understanding of mechanisms leading to early-life windows of susceptibility (e.g., examining possible links between early-life exposure to endocrine disrupters and cancer).
- Better characterization of child-relevant exposure pathways such as soil and dust ingestion.
- Models that more accurately reflect the dynamic and variable nature of growth that can appropriately represent early-life stages, especially given the expanded use of physiologically based pharmacokinetic models in risk assessment.
- Data to illuminate possible links between early-life exposure to environmental chemicals and chronic disease in adulthood (i.e., Barker Hypothesis) (Calkins and Devaskar 2011).
- Improved reporting and application of epidemiology findings in risk assessment, so that the observations in children may be better used in decision-making.

There will remain emerging children's environmental health concerns that have not yet been discovered or addressed. For example, questions about the safety of recycled tire crumb used in athletic fields and playgrounds has recently led to a new federal-wide (including U.S. EPA) effort—Federal Research on Recycled Tire Crumb Used on Playing Fields (https://www.epa.gov/chemical-research/federal-research-recycled-tire-crumb-used-playing-fields). The continued engagement of the research community in children's environmental health is needed to help address these challenges and protect our nation's children for generations to come.

Conclusion

Building on two decades of experience, the U.S. EPA continues to focus its efforts in three principal areas—science to better understand early-life susceptibility, consideration of children in environmental regulations, and outreach to inform health care providers and the public.

Much of the U.S. EPA's work during the past 20 years to protect children from environmental hazards can be considered primary prevention. These are actions and measures at the population level that minimize hazards to health and that inhibit the emergence and establishment of factors known to increase the risk of disease. For example, the U.S. EPA's regulations for Pb and OP pesticides have reduced children's exposures and thus, the potential for neurodevelopmental disease.

The evolution and expansion of children's environmental health protection over the past two decades has been remarkable. At the U.S. EPA, significant efforts have been made to address the special susceptibility of children, and our work continues to address emerging environmental concerns to ensure that children's environments are free of hazards and support healthy development.

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Message

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Sent: 10/4/2018 12:39:57 PM
To: Hughes, Hayley [hughes.hayley@epa.gov]
CC: Darwin, Veronica [darwin.veronica@epa.gov]; Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Subject: RE: Proposed Draft of FLS
Attachments: Summary FLS.PDF

Hayley

Several weeks ago, we ordered a copy of InDesign software to see what we in OCHP could do to bring the MS-Word Strategy document to life.

Manthan Shah prepared the attached based non the summary version I sent you last week.

You might find it useful in formatting the tabular version you recently provided to HHS and HUD as it evolves into a final version suitable for public release.

Michael P. Firestone, Ph.D., Acting Director
Office of Children's Health Protection (MC 1107T)
U.S. Environmental Protection Agency
Office: 202-564-2199
Cell: Ex. 6

From: Hughes, Hayley
Sent: Tuesday, October 02, 2018 12:44 PM
To: Firestone, Michael <Firestone.Michael@epa.gov>
Cc: Darwin, Veronica <darwin.veronica@epa.gov>; Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>
Subject: FW: Proposed Draft of FLS

Hello Michael,
Thanks for your continued support on the strategy. I am forwarding for your situational awareness a copy of what was provided to HHS and HUD today.

Best regards,
Hayley

Hayley Hughes, DrPH, MPH, CSP
EPA National Lead Coordinator
Office of the Administrator
US Environmental Protection Agency

Desk: 202.564.1116
Email: Hughes.hayley@epa.gov

From: Hughes, Hayley
Sent: Tuesday, October 2, 2018 11:35 AM
To: Wright, Don (HHS/OASH) <Don.Wright@hhs.gov>; 'Ammon, Matthew E' <Matthew.E.Ammon@hud.gov>
Cc: Darwin, Veronica <darwin.veronica@epa.gov>
Subject: Proposed Draft of FLS

Dear Don and Matt,

Veronica and I want to thank you for all your efforts and collaboration on the draft Federal Lead Strategy (FLS) since 2017. As a key partner for this document, we recognize that your input on and ownership of your activities is vital to creating a way forward for reducing lead exposures. We are striving to finalize the strategy for release during National Lead Poisoning Prevention Week, 21-27 October and based on our conversations with you, we are proposing a different approach on the strategy (see attached "DRAFT Proposed FLS 20181002).

In concurrence with OMB's comments on the draft strategy dated April 30, 2018 (see attached document, "PTF Lead Strategy – OMB Comments 5.14.18"), we are proposing that we focus on activities that support three goals:

Goal 1: Reduce Children's Exposure to Legacy Sources
Goal 2: Identify Children in High Risk Communities and Improve Their Health Outcomes
Goal 3: Communicate More Effectively with Stakeholders

This approach substantially streamlines the document. Also, given that the draft FLS is an extension of the 2016 President's Task Force on Environmental Health Risks and Safety Risks to Children, "Key Federal Programs to Reduce Childhood Lead Exposures and Eliminate Associated Health Risks" (attached), we have removed all of the redundant language in the background and program descriptions, leaving only the activities as shown in the proposed draft, for your review and consideration. We are recommending a short Executive Summary or Introduction to link the two documents and a table for the strategic activities and the desired or expected outcome under each goal. The numbering for the activities has also changed with the old action number in parentheses. However, the old numbers were based on a July 16, 2018, draft of the FLS, which combined Goals 2 and 3.

I would also like to highlight that we are proposing language for federal agencies to develop timelines and performance metrics for monitoring progress and/or the impact of each strategic activity once the strategy is released.

Requested actions:

(1) Review and approve new format of draft FLS.
(2) Provide comments on Executive Summary or Introduction language. We welcome your feedback!
(3) Review and approve your agency's activities and provide desired or expected outcomes.
(4) Review and approve research activities. Although the research goal was deleted per OMB comments, we are recommending to retain the activities under the other goals.
(5) Remove language regarding the identification of "hot spots" and focus instead on targeting areas with high risks for lead exposures.

We are turning to you as a partner and are asking for your assistance in helping us finalize the FLS by the third week of October. Therefore, we are asking for you to provide your comments by October 9, 2018, so we can all follow-up with OMB to discuss outstanding policy/budget issues and another LRM review on or about October 10 or 11.

Again, thank you very much for your support and assistance. Please let us know if you have further questions.

Best regards,
Hayley

Hayley Hughes, DrPH, MPH, CSP
EPA National Lead Coordinator
Office of the Administrator
US Environmental Protection Agency

Desk: 202.564.1116
Email: Hughes.hayley@epa.gov

Message

From: Hughes, Hayley [hughes.hayley@epa.gov]
Sent: 10/3/2018 2:20:29 PM
To: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Subject: FW: CDC's request for EPA nominees for a federal advisory committee on lead exposure and poisoning
Attachments: CDC Lead Exposure and Prevention AC Charter Establishment final.pdf; CV_Valerie_Zartarian_July_2018.doc; ETZEL CV 2018.pdf; Michael Firestone CV July 2018.pdf; Environmental Protection Agency - signed letter 5-16-18.pdf; Hughes_Resume_20180702EPA.pdf

Hi Helena,
Here is the history of the LEPAC nominees.

Hayley

Hayley Hughes, DrPH, MPH, CSP
EPA National Lead Coordinator
Office of the Administrator
US Environmental Protection Agency

Desk: 202.564.1116
Email: Hughes.hayley@epa.gov

From: Hughes, Hayley
Sent: Wednesday, July 11, 2018 3:04 PM
To: Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>
Subject: FW: CDC's request for EPA nominees for a federal advisory committee on lead exposure and poisoning

Hello Helena,

Based on responses from the program offices, the following names (CVs and/or resume attached) have been submitted for consideration as a member of the Lead Exposure and Prevention Advisory Committee (LEPAC).

Ask: CDC requested two EPA nominees to serve on the LEPAC (Letter attached)

Potential EPA Nominees:
Dr. Ruth Etzel, OCHP (Primary)
Dr. Michael Firestone, OCHP (Alternate)
Dr. Valerie Zartarian, ORD
Dr. Hayley Hughes, AO (As an epidemiologist and the EPA National Lead Coordinator, I would also like to be considered to serve on the LEPAC)

OCSPP passed on nominating anyone
OW did not respond

Recommendation: Representation from at least two different offices is recommended based on the charter; the LEPAC will have a focus on preventing lead exposure among children as well as reviewing epidemiologic studies and recommending supporting research activities.

Commitment: Not to exceed three years; LEPAC will meet two times per year.

Action requested: Please let me know the names that I should forward to CDC. They would like to get something by tomorrow, July 12, if possible, given the date of their initial request, which was June 15, 2018.

Please let me know if you have any questions.

Thanks,
Hayley

Hayley Hughes, DrPH, MPH, CSP
EPA National Lead Coordinator
Office of the Administrator
US Environmental Protection Agency

Desk: 202.564.1116
Email: Hughes.hayley@epa.gov

From: Hughes, Hayley
Sent: Tuesday, July 10, 2018 2:23 PM
To: Blackburn, Elizabeth <Blackburn.Elizabeth@epa.gov>; Campbell, Ann <Campbell.Ann@epa.gov>; Hanley, Mary <Hanley.Mary@epa.gov>; Lousberg, Macara <Lousberg.Macara@epa.gov>
Cc: Carroll, Carly <Carroll.Carly@epa.gov>; Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>; Etzel, Ruth <Etzel.Ruth@epa.gov>; Sauerhage, Maggie <Sauerhage.Maggie@epa.gov>; Johnson, Laura-S <Johnson.Laura-S@epa.gov>
Subject: RE: CDC's request for EPA nominees for a federal advisory committee on lead exposure and poisoning

Thank you Elizabeth.

Hayley Hughes, DrPH, MPH, CSP
EPA National Lead Coordinator
Office of the Administrator
US Environmental Protection Agency

Desk: 202.564.1116
Email: Hughes.hayley@epa.gov

From: Blackburn, Elizabeth
Sent: Tuesday, July 10, 2018 2:19 PM
To: Hughes, Hayley <hughes.hayley@epa.gov>; Campbell, Ann <Campbell.Ann@epa.gov>; Hanley, Mary <Hanley.Mary@epa.gov>; Lousberg, Macara <Lousberg.Macara@epa.gov>
Cc: Carroll, Carly <Carroll.Carly@epa.gov>; Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>; Etzel, Ruth <Etzel.Ruth@epa.gov>; Sauerhage, Maggie <Sauerhage.Maggie@epa.gov>; Johnson, Laura-S <Johnson.Laura-S@epa.gov>
Subject: RE: CDC's request for EPA nominees for a federal advisory committee on lead exposure and poisoning

Dear Hayley,

Thank you for the opportunity to submit a nomination. ORD is pleased to nominate Dr. Valerie Zartarian for this important role. A brief nomination statement and her CV are attached.

Please let me know if you have any questions.

Liz

Liz Blackburn

Chief of Staff
EPA Office of Research and Development
202-564-2192
Mobile: Ex. 6

From: Hughes, Hayley
Sent: Monday, July 09, 2018 1:58 PM
To: Campbell, Ann <Campbell.Ann@epa.gov>; Hanley, Mary <Hanley.Mary@epa.gov>; Blackburn, Elizabeth <Blackburn.Elizabeth@epa.gov>; Lousberg, Macara <Lousberg.Macara@epa.gov>
Cc: Carroll, Carly <Carroll.Carly@epa.gov>; Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>; Etzel, Ruth <Etzel.Ruth@epa.gov>; Sauerhage, Maggie <Sauerhage.Maggie@epa.gov>; Johnson, Laura-S <Johnson.Laura-S@epa.gov>
Subject: RE: CDC's request for EPA nominees for a federal advisory committee on lead exposure and poisoning

Hello All,
I hope you are all well and enjoyed some time off last week. I reached out to CDC for more information and am providing the following. The LEPAC will be made up of both federal and non-federal members, final selection of members will be finalized by the Secretary of HHS after CDC submits all of the nominees, and the LEPAC is expected to meet twice/year. For your nominees, please include a CV or resume and a response by COB tomorrow, Tuesday, July 10, 2018. Once all of the nominations are received, then a decision will be determined on who the EPA will send forward to CDC.

Please let me know if you have further questions.

Thank you,
Hayley

Hayley Hughes, DrPH, MPH, CSP
EPA National Lead Coordinator
Office of the Administrator
US Environmental Protection Agency

Desk: 202.564.1116
Email: Hughes.hayley@epa.gov

From: Hughes, Hayley
Sent: Tuesday, July 3, 2018 12:48 PM
To: Campbell, Ann <Campbell.Ann@epa.gov>; Hanley, Mary <Hanley.Mary@epa.gov>; Blackburn, Elizabeth <Blackburn.Elizabeth@epa.gov>; Lousberg, Macara <Lousberg.Macara@epa.gov>
Cc: Carly Carroll (Carroll.Carly@epa.gov) <Carroll.Carly@epa.gov>; Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>; Etzel, Ruth <Etzel.Ruth@epa.gov>; Sauerhage, Maggie <Sauerhage.Maggie@epa.gov>; Johnson, Laura-S <Johnson.Laura-S@epa.gov>
Subject: RE: CDC's request for EPA nominees for a federal advisory committee on lead exposure and poisoning

Hello All,
Changing the suspense to next Tuesday, July 10. I know that some of you have questions on the time commitment, responsibilities, and level of expertise, and I will follow up with CDC and get back to you. Thanks!

Happy Independence Day!
Hayley

Hayley Hughes, DrPH, MPH, CSP

EPA National Lead Coordinator
Office of the Administrator
US Environmental Protection Agency

Desk: 202.564.1116
Email: Hughes.hayley@epa.gov

From: Hughes, Hayley
Sent: Monday, July 2, 2018 12:17 PM
To: Campbell, Ann <Campbell.Ann@epa.gov>; Hanley, Mary <Hanley.Mary@epa.gov>; Blackburn, Elizabeth <Blackburn.Elizabeth@epa.gov>; Lousberg, Macara <Lousberg.Macara@epa.gov>
Cc: Carly Carroll (Carroll.Carly@epa.gov) <Carroll.Carly@epa.gov>; Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>; Etzel, Ruth <Etzel.Ruth@epa.gov>; Sauerhage, Maggie <Sauerhage.Maggie@epa.gov>; Johnson, Laura-S <Johnson.Laura-S@epa.gov>
Subject: CDC's request for EPA nominees for a federal advisory committee on lead exposure and poisoning

Hi Liz, Mary, and Macara (in Ann's absence),

The Administrator received a request from CDC for EPA's nominations for membership to the Lead Exposure and Prevention Advisory Committee, I have attached the charter for your information. In addition to CDC's request for representation from EPA's Office of Children's Health Protection (OCHP), I am asking for ORD's, OW's and OPPT's suggestions for additional nominations for consideration to complement OCHP's representation on the committee given the scope of the charter (i.e., research areas, etc).

Suspense: COB Tuesday, July 3, 2018.

I apologize for the short suspense. Please let me know if you have any questions or comments.

Best regards,
Hayley

Hayley Hughes, DrPH, MPH, CSP
EPA National Lead Coordinator
Office of the Administrator
US Environmental Protection Agency

Desk: 202.564.1116
Email: Hughes.hayley@epa.gov

THE SECRETARY OF HEALTH AND HUMAN SERVICES
WASHINGTON, D.C. 20201

CHARTER

LEAD EXPOSURE AND PREVENTION ADVISORY COMMITTEE (LEPAC)

Authority

The Lead Exposure and Prevention Advisory Committee is required and established by Section 2203 of Public Law 114-322, the "Water Infrastructure Improvements for the Nation Act"; 42 U.S.C. §300j-27, "Registry for Lead Exposure and Advisory Committee". The committee is governed by the provisions of Public Law 92-463, the Federal Advisory Committee Act, as amended (5 U.S.C. App.), which sets forth standards for the formation and use of advisory committees.

Objectives and Scope of Activities

Pursuant to the Section 2203 of Public Law 114-322; 42 U.S.C. §300j-27, the Secretary shall establish, within the Agency for Toxic Substances and Disease Registry (ATSDR) an advisory committee in coordination with the Director of the Centers for Disease Control and Prevention and other relevant agencies as determined by the Secretary. The objective of the committee is to review research and Federal programs and services related to lead poisoning and to identify effective services and best practices for addressing and preventing lead exposure in communities.

Description of Duties

The Lead Exposure and Prevention Advisory Committee (LEPAC) shall, at a minimum--- 1) review the Federal programs and services available to individuals and communities exposed to lead; 2) review current research on lead exposure to identify additional research needs; 3) review and identify best practices, or the need for best practices regarding lead screening and the prevention of lead poisoning; 4) identify effective services, including services relating to healthcare, education, and nutrition for individuals and communities affected by lead exposure and lead poisoning, including in consultation with, as appropriate, the lead exposure registry as established in Section 2203 (b) of Public Law 114-322; and 5) undertake any other review or activities that the Secretary determines to be appropriate.

Annually for 5 years (pending funding availability) as determined necessary by the Secretary or as required by Congress, the Committee shall submit a report to the Secretary, the Committees on Finance, Health, Education, Labor, and Pensions, and Agriculture, Nutrition, and Forestry of the Senate and the Committees on Education and the Workforce, Energy and Commerce, and Agriculture of the House of Representatives. The report shall include: 1) an evaluation of the effectiveness of the Federal programs and services available to individuals and communities exposed to lead; 2) an evaluation of additional lead poisoning research needs; 3) an assessment of any effective screening methods or best practices

used or developed to prevent or screen for lead poisoning; 4) input and recommendations for improved access to effective services relating to health care, education, or nutrition for individuals and communities impacted by lead exposure; and 5) any other recommendations for communities affected by lead exposure, as appropriate.

Agency or Official to Whom the Committee Reports

The committee shall provide advice and guidance to the Secretary, HHS; and the Director, Centers for Disease Control and Prevention and the Administrator, Agency for Toxic Substances and Disease Registry.

Support

Management and support services shall be provided by the NCEH/ATSDR.

Estimated Annual Operating Costs and Staff Years

Estimated annual cost for operating the committee, including compensation and travel expenses for members, but excluding staff support, is $404,939. Estimate of annual person-years of staff support required is 1.85 at an estimated annual cost of $220,061.

Designated Federal Officer

CDC will select a full-time or permanent part-time Federal employee to serve as the Designated Federal Official (DFO) to attend each meeting and ensure that all procedures are within applicable statutory, regulatory, and HHS General Administration Manual directives. The DFO will approve and prepare all meeting agendas, call all of the committee and subcommittee meetings, adjourn any meeting when the DFO deems adjournment to be in the public interest, and chair meetings when directed to do so by the official to whom the committee reports. The DFO or his/her designee shall be present at all meetings of the full committee and subcommittees.

Estimated Number and Frequency of Meetings

Meetings shall be held approximately two times per year at the call of the DFO in consultation with the Chair.

Meetings shall be open to the public except as determined otherwise by the Secretary, HHS, or other official to whom the authority has been delegated in accordance with the Government in the Sunshine Act (5 U.S.C. §552b(c)) and Section 10(d) of the Federal Advisory Committee Act; notice of all meetings shall be given to the public.

Duration

Continuing.

Termination

Unless renewed by appropriate action, the LEPAC charter will expire two-years from the date the charter is filed.

Membership and Designation

The Committee shall consist of no more than 15 voting Federal and non-Federal members, including the Chair, appointed by the Secretary. Not less than half of the members shall be Federal members, and the Secretary shall designate the Chair from among the Federal members. Members shall include: an epidemiologist, a toxicologist, a mental health professional, a pediatrician, an early childhood education expert, a special education expert, a dietician, and an environmental health expert. Non-Federal members shall be deemed Special Government Employees.

The committee shall consist of Federal members from a range of agencies that may include the Department of Housing and Urban Development; the Environmental Protection Agency; the Consumer Product Safety Commission; the Health Resources and Services Administration; the Centers for Medicare and Medicaid Services; the Department of Education; the Food and Drug Administration; the US Department of Agriculture; the Occupational Safety and Health Administration; the National Institute of Environmental Health Sciences; the US Geological Survey.

Members shall be invited to serve for a term of not more than three years, and the Secretary may reappoint members for consecutive terms. A member may serve 180 days after the expiration of that member's term if a successor has not taken office.

Subcommittees

Subcommittees composed of members of the parent committee and other subject matter experts may be established with approval of the Secretary, HHS or his/her designee. The subcommittees must report back to the parent committee and do not provide advice or work products directly to the agency. The Department Committee Management Officer will be notified upon establishment of each subcommittee and will be provided information on its name, membership, function, and estimated frequency of meetings.

Record Keeping

The records of the committee, established subcommittees, or other subgroups of the committee, shall be managed in accordance with General Records Schedule 6.2, Federal Advisory Committee Records, or other approved agency records disposition schedule. These records shall be available for public inspection and copying, subject to the Freedom of Information Act, 5 U.S.C. §552.

Establishment Filing Date JAN 18 2018

Approved:

1/17/2018
Date

Eric D. Hargan

CURRICULUM VITAE
VALERIE G. ZARTARIAN, Ph.D.

Home:
Ex. 6

Work:
US EPA mail code E205-02, RTP, NC
Duty station: Region 1, ORA 01-1, Boston, MA
617-918-1541 (office)
Zartarian.valerie@epa.gov

Date and Place of Birth:
Ex. 6

Citizenship:
U.S.

Education:

1/93-1/97 **Ph.D., Stanford University, Civil Engineering Department, Environmental Engineering and Science Program**, Stanford, CA
Date of diploma: January 9, 1997. GPA 3.84 out of 4.0
Minor degree in Statistics
Dissertation: "A Physical-Stochastic Model for Understanding Dermal Exposure to Chemicals"

9/91-1/93 **M.S., Stanford University, Civil Engineering Department, Environmental Engineering and Science Program**, Stanford, CA
Date of diploma: January 7, 1993. GPA 3.77 out of 4.0

9/85-6/89 **B.S., Princeton University, Civil Engineering Department, Water Resources Program**, Princeton, NJ
Date of diploma: June 6, 1989. Cum Laude. GPA 3.53 out of 4.0
Senior Thesis: "A Comparison of Land Surface Parameterizations for General Circulation Models"

Chronology of Employment:

7/15-present Scientific Technical appointment ST-1301-00, Senior Research Physical Scientist, U.S. Environmental Protection Agency (EPA), Office of Research and Development (ORD), National Exposure Research Laboratory (NERL), Systems Exposure Division (SED)

- *EPA ORD Executive Lead for Lead (Pb), May 2018 – present*
- *EPA co-chair of Federal Lead (Pb) Strategy research component, under the President's Task Force on Children's Environmental Health and Safety Risks (June 2017-present)*
- *Led multimedia lead (Pb) exposure modeling analyses and research to inform EPA regulatory decisions; initiated PFAS multimedia exposure modeling research*
- *Presented on behalf of EPA and ORD at high level meetings including EPA's Science Advisory Board; Federal Information Exchange on PFAS Chemicals; EPA high impact science assessment external peer review for the Lead and Copper Rule; international Advancing the Pace of Chemical Risk Assessments workshop;*
- *Served as Task Lead and Principal Investigator for research in EPA's Sustainable and Healthy Communities Research Program, Vulnerable Populations Project*

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CURRICULUM VITAE
VALERIE G. ZARTARIAN, Ph.D.

3/15-7/15 GS-15 (step 8) Research Environmental Engineer, U.S. Environmental Protection Agency (EPA), Office of Research and Development (ORD), National Exposure Research Laboratory (NERL), Human Exposure and Atmospheric Sciences Division (HEASD); Exposure Modeling Research Branch (EMRB)
- *NERL Task Lead and Principal Investigator in the EPA/ORD Sustainable and Healthy Communities Research Program, Vulnerable Populations Project*

6/13-3/15 GS-15, Assistant Laboratory Director, U.S. Environmental Protection Agency (EPA), Office of Research and Development (ORD), National Exposure Research Laboratory (NERL)
- *Matrix Interface (MI) for NERL and the EPA/ORD Sustainable and Healthy Communities (SHC) Research Program*

9/98-6/13 GS-12, -13, -14, -15, Research Environmental Engineer, U.S. Environmental Protection Agency (EPA), Office of Research and Development (ORD), National Exposure Research Laboratory (NERL), Human Exposure and Atmospheric Sciences Division (HEASD); Exposure Modeling Research Branch (EMRB)
- *Served as co-PI, Project Lead, and Task Lead for multimedia exposure modeling (SHEDS-Multimedia), and community public health research and decision support tools (C-FERST and Tribal-FERST webtools, Health Impact Assessment)*

1/98-3/98 Lecturer, Stanford University, *Air Quality Management*, Environmental Engineering and Science Program, Stanford Undergraduate Course, Stanford, CA

9/97-12/97 Course Founder and Co-Instructor, Stanford University, *Advanced Topics in Human Exposure to Environmental Pollutants: Residential and Multimedia Exposures, Human Activity Patterns, and Policy Issues*, Environmental Engineering and Science Program, Stanford Graduate Seminar, Stanford, CA

4/97-9/98 Postdoctoral Research Affiliate, Stanford University, Civil Engineering Department, Environmental Engineering and Science Program, Stanford, CA

1/91-12/96 Doctoral Research Assistant, Stanford University, Civil Engineering Department, Environmental Engineering and Science Program, Stanford, CA

9/95-12/95 Teaching Assistant, Stanford University, *Air Pollution Physics and Chemistry,* Environmental Engineering and Science Program, Stanford, CA

1/95-3/95 Teaching Assistant, Stanford University, *Air Quality Management,* Environmental Engineering and Science Program, Stanford, CA

7/89-8/91 Water Resources Engineering Consultant, Camp Dresser & McKee (CDM), Boston and Cambridge, MA

6/88-8/88 Assistant Hydrologist, Watson Hawksley Ltd., High Wycombe, England

6/87-8/87 Environmental Department Intern, Anderson-Nichols, Inc., Boston, MA

Research Interests:

- Multimedia exposure analyses of lead (Pb) and other chemicals for children and vulnerable populations
  - modeling, statistical approaches, GIS mapping to identify high risk areas and key factors
  - human exposure modeling for aggregate and cumulative chemical assessments, including development and application of EPA Stochastic Human Exposure and Dose Simulation (SHEDS) models to inform research and regulatory risk assessments
  - enhancing exposure factors to reduce uncertainty in human exposure and risk assessments, including children's hand- and object-to mouth frequency, soil/dust ingestion rate, dermal transfer

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- Community-focused exposure and risk research and decision-support tools
  - development, evaluation, integration, and application of exposure models and decision-support tools (e.g. EPA's C-FERST and Tribal-FERST) to advance the science and understanding of cumulative risks and impacts to communities and individuals
  - Health Impact Assessment (co-led one of EPA's first HIAs; first school-building HIA in community of practice)
  - exposure science focusing on community public health and vulnerable populations (e.g., chemical and non-chemical stressors for tribes, environmental justice communities; EPA Region 1 Lawrence, MA Making a Visible Difference project)
- International harmonization of exposure assessment
  - models, methodologies, nomenclature, collaboration case studies (e.g. Pb modeling)

Leadership Roles and Appointments

- EPA Office of Research and Development Executive Lead for Lead (Pb) (May 2018-present)
- EPA co-chair, interagency Federal Lead (Pb) Strategy research component, under President's Task Force on Children's Environmental Health and Safety Risks (June 2017-present)
- EPA/ORD lead for presenting to High Impact Science Assessment external peer review on multimedia Pb modeling approaches (June 2017)
- EPA co-chair for EJ IWG (Environmental Justice Interagency Working Group) Climate Impacts subcommittee (2014-2015)
- Technical Panel member, EPA Exposure Assessment Guidelines, modeling chapter co-lead
- Writing team member for EPA's plan EJ2020 (Science Tools chapter); EPA/ORD's EJ and Children's Research Roadmaps
- Member of ORD/NERL Science Council; climate workgroup lead (2014-)
- US Co-Chair, International Exposure Assessment Workgroup, Global Risk Dialogue (2008-2012)
- Invited international presentations by the E.U. and U.S. OMB (2008, 2011)
- Invited briefings to EPA AAs and DAAs
- EPA/ORD lead for 4 EPA FIFRA Scientific Advisory Panel (SAP) meetings to externally review SHEDS model and applications (2002, 2003, 2007, 2010)
- EPA/ORD representative on Region 1 Sustainable Knowledge Corridor (SKC) Team, Region 1 Communities Coordinating Committee, Global Climate Change Network (GCCN)
- Mentor for Post-Doctoral researcher; Harvard Ph.D. Student Services Contractor; and ASPH Fellow
- Leadership roles in EPA/ORD research planning and implementation
  - Sustainable and Healthy Communities (SHC) Research Action Plan
  - Chemical Safety and Sustainability (CSS) Research Action Plan
  - ORD Human Health Research Program Multi-Year Plan FY06-13
  - NERL/HEASD and ORD BOSC External Peer Reviews
- Project Lead, Task Lead and Principal Investigator on several ORD/NERL research programs
- Developed NERL's strategic research plans, task descriptions, task budgets, research abstracts, other administrative duties, and presentations for the multimedia, multipathway exposure modeling program and for exposure tools for cumulative/community risk assessments
- Responsible for multiple ORD Annual Performance Measures

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- Served as Contract Officer representative and Task Order Project Officer for multiple extramural vehicles for both projects
- Invited lecturer on human exposure science (Harvard University, George Washington University; Stanford University; Johns Hopkins University; University of Washington)
- Councilor and Committee Member, International Society of Exposure Science
- Invited session co-chair and rapporteur for national and international conferences
- Member, EPA/ORD Environmental Justice and Children's Health Research Roadmap working groups (2014)
- Co-lead, cross-ORD writing team on SHC Research Action Plan (RAP) for project, "Research to Inform and Assess Decisions to Improve Community Public Health," 2011
- Co-facilitator, Systems Modeling session, April 2011 CSS Scientist-to-Scientist meeting in RTP
- ORD rep on Region 1's Goal 4 Building Healthy Communities team; data working group
- Workgroup member, Community Action for Environmental Public Health Web Page
- EPA/ORD/NERL Modelers Workgroup to address National Academy of Science (NAS) report on models, subcommittee lead (2008-2011)
- Writing Team, Revised EPA Exposure Assessment Guidelines, EPA Risk Assessment Forum
- ORD representative, CREM Working Group (2008)
- ORD representative, Region 1 Regional Science Council (2005-2008)
- Writing Team, EPA Age Groupings Guidance Document, EPA Risk Assessment Forum (2004-2005)
- Editorial Board, Journal of Children's Health (2003-2005)
- Exposure Factors Program Advisory Group, to provide NCEA/ORD with recommendations regarding needs and priorities on exposure factors that will assist in updating the EPA Exposure Factors Handbook (2004)
- Councilor representing the government sector for the International Society of Exposure Analysis (2002-2005)
- World Health Organization, International Programme on Chemical Safety, project on the Harmonization of Approaches to the Assessment of Risk from Exposure to Chemicals, Harmonization of Chemical Exposure Assessment Terminology Workgroup (2000-2002)
- Co-Lead, EPA's Aggregate Residential Exposure Model Comparison Workshop, Research Triangle Park, NC, October 10-11, 2001 (collaborated with EPA, Office of Pesticide Programs, Health Effects Division)
- Co-Lead, EPA's Workshop on Micro/Macro-Activity Data Needs to Improve Multi-Media, Multi-Pathway Exposure/Intake Dose, May 17-18, 2001, Research Triangle Park, NC
- Planning Committee, Children's Health Risk Assessment Workshop on Increasing Uniformity of Exposure Assessments for Children, RAF (2001)
- EPA/ORD/NERL representative, Environmental Public Health Outcomes Workshop, sponsored by EPA Office of Research and Development, July 30, 2002, Research Triangle Park, NC
- International Life Sciences Institute/Health and Environmental Sciences Institute Risk Assessment Methodologies Technical Committee (1999-2000)
- Pesticide Exposure Advisor and Panel Member, Stanford University Presidential Advisory Committee, Pesticide Policy, Stanford, CA (1994-1995)

Select Leadership Roles at Conference Sessions/Symposia

- Organized 10/16/17 ISES Conference session on Childhood Multimedia Lead Exposures

- Led international Pb case study for Advancing Pace of Chemical Risk Assessment (APCRA) workshop; presented in Helsinki Finland, October 2017
- Presented, as the EPA Co-Chair of the Environmental Justice Interagency Workgroup's Climate Impacts Subcommittee, an overview of the subcommittee's activities at the White House Champions of Change for Climate Equity Event, hosted by the White House Council on Environmental Quality, 7/25/16
- Session Co-chair, 1st Annual National HIA Conference, "HIA Information Toolkit: Data, Methods, and Models from the HIA Community of Practice," April 3-4, 2012, Washington, DC
- Rapporteur, Exposure Session, 2nd International Conference on Risk Assessment, "Global Risk Assessment Dialogue," January 26-28, 2011, hosted by the Directorate-General for Health and Consumers of the European Commission, Brussels, Belgium
- Rapporteur, Exposure Session, 1st International Conference on Risk Assessment, "Global Risk Assessment Dialogue," November 13-14, 2008 hosted by the Directorate-General for Health and Consumers of the European Commission, Brussels, Belgium
- Session Organizer for "EPA/CDC Tools for Data Gathering and Prioritization" and lead developer of C-FERST prototype demonstration, 2008 annual CARE meeting
- Session Co-chair, ISEA communities symposium "Community-Based Research Efforts," 2008
- Session Co-chair, annual ACS meeting in Philadelphia, "Residential Exposure Model Algorithms: Comparisons by Exposure Pathway Across Four Models", 2008
- Co-organizer and co-chair, 2007 ISEA Conference Symposium, "Exposure Science for Community-Based Cumulative Risk Assessment"
- Session co-chair at International Society of Exposure Analysis (ISEA) conferences in 2001, 2000, 1999
- Session co-chair at Society for Risk Analysis in 2002 and 1999
- Session Co-Chair, Comparison of Aggregate Residential Exposure Models – Parts I and II, International Society for Exposure Analysis Conference, November, 2001, Charleston, SC
- Session Co-Chair, Children's Environmental Exposures and Health, International Society for Exposure Analysis Conference, October 2000, Monterey, CA
- Session Rapporteur, Methodological Issues and Model Requirements Session, Aggregate Exposure Assessment Model Evaluation and Refinement Workshop, International Life Sciences Institute, Health and Environmental Sciences Institute, October 19-21, 1999, Baltimore, MD
- Session Co-Chair, Pesticides Exposure and Health, International Society for Exposure Analysis Conference, September, 1999, Athens, Greece
- Session Co-Chair, Modeling Uncertainty and Variation in Time-Varying Exposures, Society for Risk Analysis Conference, December 1999, Atlanta, GA

Societies:

- International Society of Exposure Analysis (ISES)
  - Chair of Nomenclature Committee, 6/08-
  - Councilor Representing Government Sector, 7/1/02-6/30/05
  - Awards Committee Member, 10/10/02-6/30/05
  - Member, 1992-present
- Society of Practitioners of Health Impact Assessment (SOPHIA), 2013-
- Society for Risk Analysis, Member 2009, 2003, 2000
- Sigma Xi Scientific Research Society
  - Associate Member, 1989-1998
- Toastmasters International, Camp Dresser & McKee, Inc. Chapter

- President, 1991; Secretary, 1990

Professional Awards:

2016

- EPA ORD Honor Award (team award), Lead Exposure Modeling Support Team, for Exceptional/Outstanding ORD Technical Assistance to the Office of Groundwater and Drinking Water (OGWDW) in the development of proposed modeling approaches for a health-based benchmark for lead in drinking water.
- EPA/ORD/NERL Exposure Science Excellence Award (team award) "for exemplary efforts in applying cutting-edge science, cross-agency collaboration and scientific leadership for multimedia Lead exposure modeling"
- EPA/ORD "S" superior accomplishment award for coauthoring journal article "Rethinking Environmental Protection: Meeting the Challenges of a Changing World"
- EPA/ORD/NERL time off award for initiating and implementing a vision for collaborative cross-ORD research on climate justice

2014

- EPA/ORD/NERL time off award for quality of performance as ALD/MI

2013

- USEPA Bronze Medal SHEDS-Multimedia Human Exposure Modeling Team
- USEPA Bronze Medal, ORD SHC Matrix Interfaces and Project Leads

2012

- USEPA Scientific and Technological Achievement Award (STAA), Level II for Probabilistic Exposure Modeling and Methyl Mercury to Inform Regulatory and Community Decision Making
- USEPA STAA Honorable Mention for Developing and Implementing a Research program and Decision Support Tool for Community-Based Environmental Assessments
- EPA/ORD/NERL/HEASD/EMRB On the Spot Award for C-FERST and T-FERST presentations in high level briefings
- EPA/ORD/NERL/HEASD/EMRB S-Team award recognizing the High Value and Broad application of the research and development activities of the EMRB SHC/Communities Research team: "Dr Zartarian is recognized for her exceptional contributions as co-Project Lead of the SHC Community Public health project in addition to her tireless efforts at interacting with case study communities and tribes, epitomizing transdisciplinarity by improving both C-FERST and T-FERST through those case study interactions, interacting with OEI, contractors and leveraging skills in Region 1 to build the tool, and developing and presenting C-FERST and T-FERST in high level briefings so that it is now recognized through White House and National Prevention council Initiatives…"
- EPA/ORD/NERL/HEASD/EMRB S-Team award recognizing the High Value and Broad application of the research of the EMRB SHEDS-Multimedia Research team.
- Award from EPA/ORD SHC iNPD for outstanding contributions to the development of the Sustainable and Healthy Communities Research Action Plan

2011

- EPA/ORD/NERL Special Achievement award in recognition for "exceptional contributions to research in NERL and to the research planning efforts of ORD"

- EPA/ORD/NERL/HEASD Superior Accomplishment Recognition Award for multiple contributions to human exposure science
- EPA/ORD 2011 Honor Award recipient, Environmental Justice Award (team), "Community Cumulative Risk Research-Working for Environmental Justice" - for incorporating ORD science into community-based tools for environmental justice.
- EPA/ORD Communities Tool Research Group for Exceptional Outstanding Tech Assistance to Regions or Program Offices
- EPA/ORD/NERL Goal 1 (Support the Agency's Mission) Award "for providing high-quality and timely scientific information and research results on the ORD Pyrethroid Project" (team award)
- EPA/ORD Superior Accomplishment Recognition Award: ORD Team Award by Office of Pesticide Programs (OPP)/Health Effects Division (HED) for Residential SOP Revisions
- EPA/ORD Superior Accomplishment Recognition Award: ORD Team Award by OPP/HED for Support with SHEDS Model

2010

- EPA Scientific and Technological Achievement Award (STAA) Level I Award for "Refining Probabilistic Distributions of Exposure Factors for Use in Human Exposure Modeling and Risk Assessments" (team award)
- EPA/ORD/NERL Teamwork Award for the NERL Modeling Workgroup

2009

- EPA/ORD/NERL Teamwork Award, for the team's expertise in providing data and models to conduct a risk assessment for pyrethroid pesticides in support of the Office of Pesticide Programs (OPP) and the Food Quality Protection Act (FQPA)
- EPA/ORD/NERL Goal 1 Award: Support the Agency's Mission, Team Award for routinely interacting with OPP/HED scientists to provide technical assistance & regulatory support to conduct risk assessments, review safety of older pesticides, evaluate potential new pesticides (team)

2008

- EPA Scientific and Technological Achievement Award (STAA) Level III for Probabilistic Exposure Modeling Used in EPA's Risk Assessment of Children Contacting CCA-Treated Playsets and Decks
- EPA/ORD/NERL Special Accomplishment Recognition Award for Planning/Organizing the HEASD Peer Review
- EPA/OPP Superior Accomplishment Recognition Team Award from OPP: for outstanding contributions to the Antimicrobials Division (AD) and Office of Pesticide Programs (OPP) in the development of OPP's probabilistic exposure and risk assessment for children exposed to Copper Chromated Arsenical (CCA)-treated wood products (e.g., decks and playground equipment)

2007

- USEPA, Gold Medal for Exceptional Service, in recognition of advancing the scientific basis for assessing and monitoring children's environmental exposures through the development of agency-wide risk assessment guidance

- EPA/ORD Honor Award, Exceptional/Outstanding ORD Technical Assistance to the Regions or Progam Offices Award (The ORD Pyrethroid Cumulative Risk Team, for the development and presentation of reports to the SAP on modeling approaches to estimate exposure and dose for use in cumulative risk)
- USEPA, Children's Environmental Health Excellence Award, Science Achievement (team), for outstanding leadership in protecting children from environmental health risks
- Special Accomplishment Award from HEASD for science contributions to OPP's n-methyl carbamate assessment
- EPA/ORD/NERL/HEASD Quality Step Increase Award
- EPA/ORD/NERL/HEASD/EMRB "on the spot" award

2006

- EPA Special Accomplishment Recognition Award, EPA Office of Research and Development, National Exposure Research Laboratory, Human Exposure and Atmospheric Sciences Division, Exposure Modeling Research Branch (EPA/ORD/NERL/HEASD/EMRB), "for superior contributions to HEASD and EPA overall," and particularly for contributions on the ORD collaboration with OPP on n-methyl carbamates

2005

- Special Accomplishment Recognition Award, EPA Office of Research and Development, National Exposure Research Laboratory, Human Exposure and Atmospheric Sciences Division, Exposure Modeling Research Branch (EPA/ORD/NERL/HEASD/EMRB), for high quality performance during the year

2003

- Superior Accomplishment Recognition Award, EPA Office of Research and Development, National Exposure Research Laboratory, Human Exposure and Atmospheric Sciences Division, Exposure Modeling Research Branch (EPA/ORD/NERL/HEASD/EMRB), for sustained high performance during the year
- EPA/ORD Honor Award, Exceptional/Outstanding ORD Technical Assistance to the Regions/Program Offices, OPP/AD and OSP, for supporting OPPTS' efforts to characterize and mitigate risks from CCA-treated wood
- EPA/ORD Honor Award, Exceptional/Outstanding ORD Technical Assistance to the Regions/Program Offices Award (for supporting Region 1)
- Superior Accomplishment Recognition Award, OPP, Antimicrobials Division (team)

2002

- Superior Accomplishment Recognition Award from EPA Office of Pesticide Programs, Antimicrobials Division (AD) for applying the SHEDS model to assess children's exposure and dose to arsenic and chromium from chromated copper arsenate (CCA)-treated wood on playsets and decks
- Superior Accomplishment Recognition Award, EPA Office of Research and Development, National Exposure Research Laboratory, Human Exposure and Atmospheric Sciences Division (EPA/ORD/NERL/HEASD), for presenting SHEDS model for wood preservative exposures to EPA Office of Pesticide Programs' Science Advisory Panel

CURRICULUM VITAE
VALERIE G. ZARTARIAN, Ph.D.

2001

- EPA Bronze Medal for Commendable Service in recognition of outstanding work performed in the area of human exposure and health science

2000

- EPA Science and Technological Achievement Award, Honorable Mention, for "A Modeling Framework For Estimating Children's Residential Exposure and Dose to Chlorpyrifos Via Dermal Residue Contact and Non-Dietary Ingestion," 2000, Zartarian V.G., Özkaynak H., Burke J.M., Zufall M.J., Rigas M.L., Furtaw Jr. E.J., Environmental Health Perspectives, 108(6): 505-514.
- Superior Accomplishment Recognition Award, EPA/ORD/NERL/HEASD, for SHEDS-Pesticides model development
- Joan Daisey Outstanding Young Scientist Award, International Society for Exposure Analysis
- Superior Accomplishment Recognition Team Award, EPA/ORD/NERL/HEASD for designing a poster on the Children's Research Program for a meeting of NERL management and the Executive Committee Meeting of the Science Advisory Board, July 12-13, 2000

1999

- Superior Accomplishment Recognition Team Award, EPA/ORD/NERL/HEASD, for developing the SHEDS model for pesticides under Food Quality Protection Act modeling research

Select Training:

- Attended SAB and BOSC Discussion of ORD Strategic Research Directions, July 24-25, 2014, Washington, DC
- Community Engagement Training, co-sponsored by ORD/NCER and OAQPS, January 2013, RTP, NC
- ORD SHC Implementation Meeting Training (2.5 day training to enhance abilities of SHC Project Leads to implement the research program, March 28-30, 2012, RTP, NC)
- Exploring the Promise and Practice of Health Impact Assessments: A New England Training Series, Worcester, MA, May 31, 2012
- Harvard School of Public Health Center for Continuing Professional Education, Effective Risk Communication: Theory, Tools, and Practical Skills for Communicating About Risk May 14-16, 2012 Boston, MA

Bibliography (Peer Reviewed Journal Publications; Earliest to Most Recent):

1. Wood, E.F., Lettenmaier, D.P., Zartarian, V.G., 1992, "A Land Surface Hydrology Parametrization with Subgrid Variability for General Circulation Models," *Journal of Geophysical Research*, 97(D3): 2717-2728.
2. Zartarian, V.G., Streicker, J., Rivera, A., Cornejo, C., Molina, S., Valadez, O., Leckie, J.O., 1995, "A Pilot Study to Collect Micro-Activity Data of Two- to Four-Year Old Farm Labor Children in the Salinas Valley, California," *Journal of Exposure Analysis and Environmental Epidemiology*, 5(1): 21-34.

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3. Zartarian, V.G., Ong, C.G., Ferguson, A.C., Leckie, J.O., 1997, "Quantifying Videotaped Activity Patterns: Video Translation Software and Training Methodologies," *Journal of Exposure Analysis and Environmental Epidemiology*, 7(4): 535-542.
4. Zartarian, V.G., Ferguson, A.C., Leckie, J.O., 1997, "Quantified Dermal Activity Data from a Four-Child Pilot Field Study," *Journal of Exposure Analysis and Environmental Epidemiology*, 7(4): 543-552.
5. Zartarian, V.G., Ott, W.R., Duan, N., 1997, "Feature Article: A Quantitative Definition of Exposure and Related Concepts," *Journal of Exposure Analysis and Environmental Epidemiology*, 7(4): 411-438.
6. Zartarian, V.G., Ferguson, A.C., Leckie, J.O., 1998, "Quantified Mouthing Activity Data from a Four-Child Pilot Field Study," *Journal of Exposure Analysis and Environmental Epidemiology*, 8(4): 543-553.
7. Zartarian, V.G. and Leckie, J.O., 1998, "Feature Article - Dermal Exposure: The Missing Link," *Environmental Science and Technology*, 3(3): 134A-137A.
8. Zartarian V.G., Özkaynak H., Burke J.M., Zufall M.J., Rigas M.L., Furtaw Jr. E.J., 2000, "A Modeling Framework For Estimating Children's Residential Exposure and Dose to Chlorpyrifos Via Dermal Residue Contact and Non-Dietary Ingestion," *Environmental Health Perspectives*, 108(6): 505-514.
9. Cohen Hubal E.A., Sheldon L.S., Burke J.M., McCurdy T.R., Berry M.R., Rigas M.L., Zartarian, V.G., Freeman, N.C.G., 2000, "Children's Exposure Assessment: A Review of Factors Influencing Children's Exposure, and the Data Available to Characterize and Assess that Exposure," *Environmental Health Perspectives*, 108(6):475-486.
10. Buck R., Özkaynak H., Xue J., Zartarian V.G., Hammerstrom K., 2001, "Modeled Estimates of Chlorpyrifos Exposure and Dose for Minnesota and Arizona NHEXAS Populations," *Journal of Exposure Analysis and Environmental Epidemiology*, 11(3): 253-268.
11. Needham L.L., Ozkaynak H., Whyatt R.M., Barr D.B., Wang R.Y. , Naeher L., Akland G., Bahadori T., Bradman A., Fortmann R., Liu S., Morandi M., O'Rourke M.K., Thomas K., Quackenboss J., Ryan P.B., Zartarian V., 2005, Exposure assessment in the National Children's Study: introduction. *Environ Health Perspect.* 113:1076-82.
12. Zartarian V., Bahadori T., McKone T., 2005, Feature Article: Adoption of an Official ISEA glossary, *Journal of Exposure Analysis and Environmental Epidemiology*, 15(1).
13. Hore P, Zartarian V, Xue J, Ozkaynak H, Wang SW, Yang YC, Chu PL, Sheldon L, Robson M, Needham L, Barr D, Freeman N, Georgopoulos P, Lioy PJ., 2005, Children's residential exposure to chlorpyrifos: Application of CPPAES field measurements of chlorpyrifos and TCPy within MENTOR/SHEDS-Pesticides model. Sci Total Environ. 2005 Dec 14; [Epub ahead of print]
14. Zartarian V., Xue J., Ozkaynak H., Dang W., Glen G., Smith L., Stallings C., 2006. A Probabilistic Arsenic Exposure Assessment for Children Who Contact Chromated Copper Arsenate (CCA)-Treated Playsets and Decks, Part 1: Model Methodology, Variability Results, and Model Evaluation. *Risk Analysis* , 26(2): 515-531.
15. Xue J., Zartarian V., Ozkaynak H., Dang W., Glen G., Smith L., Stallings C., 2006. A Probabilistic Arsenic Exposure Assessment for Children Who Contact CCA-Treated Playsets and Decks, Part 2: Sensitivity and Uncertainty Analyses. *Risk Analysis* , 26(2): 533-541.
16. Xue J., Zartarian V., Moya J., Freeman N., Beamer P., Black K., Tulve N., Shalat S., 2007. A meta-analysis of children's hand-to-mouth frequency data for estimating nondietary ingestion exposure. *Risk Analysis*. 27(2):411-20.

17. Zartarian V., Xue J., Ozkaynak H., 2007, Response to "A Probabilistic Arsenic Exposure Assessment for Children Who Contact CCA-Treated Playsets and Decks, Part 1: Model Methodology, Variability Results, and Model Evaluation," *Risk Analysis*, 27 (1):5-6.
18. Firestone M., Moya J., Cohen-Hubal E., Zartarian V., Xue J., 2007, Identifying childhood age groups for exposure assessments and monitoring. *Risk Analysis* (3):701-14.
19. Georgopoulos P.G., Wang, S., Yang, Y., Xue J., Zartarian V., McCurdy T., Özkaynak H., 2008, Biologically based modeling of multimedia, multipathway, multiroute population exposures to arsenic, *Journal of Exposure Science and Environmental Epidemiology* 18, 462–476.
20. Xue J, Zartarian V., Wang S, Georgopoulos P., 2009, Probabilistic Modeled Estimates of Dietary Arsenic Exposure and Dose and Evaluation with 2003 NHANES Data. *Environ Health Perspect* 118:345-350.
21. Barzyk T.M., Conlon K.C., Hammond D.M., Chahine T., Zartarian V.G., Schultz B.D., 2009. Tools Available to Communities for Conducting Cumulative Exposure and Risk Assessments. *J Expo Sci Environ Epidemiol.* (2010) 20, 371–384;
22. Zartarian V.G. and Schultz B.D., 2010, The EPA's Human Exposure Research Program for Assessing Cumulative Risk in Communities, *J Expo Sci Environ Epidemiol.* 20(4): 351–358.
23. Xue J., Zartarian V., Tulve N., Moya J., Freeman N., AuYeung W., Beamer P., 2010, A meta-analysis of children's object-to-mouth frequency data for estimating non-dietary ingestion exposure. *Journal of Exposure Science and Environmental Epidemiology.* 20, 536–545
24. Ozkaynak H., Xue J., Zartarian V., Glen G., Smith L. Modeling Estimates of Soil and Dust Ingestion Rates for Children, 2011, *Risk Analysis.* (31) 4: 592–608.
25. Chahine T., Schultz B., Zartarian V., Subramanian S., Spengler J., Hammitt J., Levy J.. 2011. Modeling geographic and demographic variability in residential concentrations of environmental tobacco smoke using national datasets. *Journal of Exposure Science & Environmental Epidemiology.* (16 March 2011) | doi:10.1038/jes.2011.12
26. Chahine T., Schultz B., Zartarian V., Xue J., Subramanian S., Levy J. 2011. Modeling geographic and demographic variability in residential radon exposure and lung cancer risk in the United States. *Int. J. Environ. Res. Public Health* 8(9), 3688-3711.
27. Zartarian V.G., Schultz B.D., Barzyk T., Smuts M., Hammond D., Geller A.M., 2011, The EPA's Community-Focused Exposure and Risk Screening Tool (C-FERST) and Its Potential Use for Environmental Justice Efforts. Accepted for publication by the *American Journal of Public Health.*
28. Hammond D., Conlon K., Barzyk T., Chahine T., Zartarian V., Schultz B. 2011. Assessment and Application of National Environmental Databases and Mapping Tools at the Local Level to Two Community Case Studies. *Risk Analysis*, 31 (3): 475-487.
29. Xue, J., Zartarian V.G., Liu S.V., Geller A., 2012, Methyl Mercury Exposure from Fish Consumption in Vulnerable Racial/Ethnic Populations: Probabilistic SHEDS-Dietary Model Analyses Using 1999-2006 NHANES and 1990-2002 TDS Data. *Science of the Total Environment.* Elsevier BV, AMSTERDAM, Netherlands, 414(1):373-379.
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31. Tornero-Velez, R., J. Davis, E. Scollon, J. Starr, M. Goldsmith, W. Setzer, J. Xue, V. Zartarian, M. DeVito, and M. Hughes, 2012, A pharmacokinetic model of cis- and trans-permethrin

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32. Young B.M., N.S. Tulve, P.P. Egeghy, J. Driver, V.G. Zartarian, J. Johnston, C. Delmaar, J. Evans, L.A. Smith, G. Glen, C. Lunchick, J.H. Ross, J. Xue, D. Barnekow, 2012, Exposure Route Comparison of Four Probabilistic Aggregate Residential Exposure Models (CARES®, Calendex™, ConsExpo, SHEDS), J Expo Sci Environ Epidemiol..22: 522-532.
33. Xue J., Liu S.V., Zartarian V.G., Geller A.M., Schultz B.D., 2014, Analysis of NHANES measured blood PCBs in the general US population and application of SHEDS model to identify key exposure factors, *Journal of Exposure Science and Environmental Epidemiology* 24, 615–621; doi:10.1038/jes.2013.91; published online 15 January 2014.
34. Xue J., Zartarian V., Tornero-Velez R., Tulve N., 2014, EPA's SHEDS-Multimedia Model: Children's Cumulative Pyrethroid Exposure Estimates and Evaluation against NHANES Biomarker Data, *Environment International*. Volume 73, December 2014, Pages 304–311.
35. Xue J., Zartarian V., Mintz B., Weber M., Bailey K., Geller A. "Modeling Tribal Exposures to Methyl Mercury from Fish Consumption," Sci Total Environ 2015 Nov 4;533:102-9. Epub 2015 Jul 4.
36. Burke T., Cascio, W., Costa, D., Deener, K., Fulk F., Jackson L., Munns W., Fontaine T., Orme-Zavaleta, Munns W., Zartarian V., 2017, "Rethinking Environmental Protection: Meeting the Challenges of a Changing World." Environ Health Perspect 2017 03;125(3):A43-A49
37. Zartarian V., Xue J., Tornero-Velez R., Brown J., 2017. "Children's Lead Exposure: A Multimedia Modeling Analysis to Guide Public Health Decision-Making." *Environ Health Perspect* 09 12;125(9):097009. Epub 2017 Sep 12.

Book Chapters, Technical Reports, and Dissertations:

1. V. Zartarian and A. Geller, Enhancements of C-FERST and T-FERST to support cumulative assessments about community and tribal health and ecosystem functions for use in environmental decision-making. September 2012, EPA/600/X/12/678.
2. Barzyk, T. M., B. White, L. Perlmutt, M. Millard, M. Martin, F. Harris, P. Nguyen, K. Memmos, F. Jenkins, D. Hammond, A. Walts, A. Geller, V. G. Zartarian, B. D. Schultz. Application of Tools and Databases to Community-Level Assessments of Exposure, Health and the Environment with Case Study Examples. U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-11/120 (NTIS PB2013-102730), 2012.
3. Tan, Y., C. C. Dary, D. Chang, E. M. Ulrich, J. M. Van Emon, J. Xue, J. D. Pleil, J. F. Kenneke, J. Sobus, L. S. Sheldon, M. K. Morgan, M. Goldsmith, R. Tornero-Velez, R. Highsmith, R. C. Fortmann, T. W. Collette, V. G. Zartarian. Biomonitoring - An Exposure Science Tool for Exposure and Risk Assessment. U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-12/039 (NTIS PB2012-112321), 2012.
4. Williams, P.R.D., Hubbell, B.J., Weber, E., Fehrenbacher, C., Hrdy, D., V. Zartarian. *An overview of exposure assessment models used by the U.S. Environmental Protection Agency*. (2011). In: Modelling of Pollutants in Complex Environmental Systems, Vol. 2. Grady Hanrahan (editor), Chapter 3. ILM Publications, UK.
5. Vallero, D. A., Isukapalli S., Zartarian V.G., McCurdy T.R., McKone T., Georgopoulos P., Dary C.C.. (2010) *Modeling and Predicting Pesticide Exposures*. Chapter 44, Robert Krieger (ed.), Hayes Handbook of Pesticide Toxicology. Elsevier Science, New York, NY, 1:995-1020.

6. Zartarian V.G., Ott W., Duan N., (2006). Chapter 2: Basic Concepts and Definitions of Exposure and Dose, in: *Exposure Analysis*, eds. Ott, Steineman, Wallace, CRC Press, ISBN: 1-56670-663-7.
7. Zartarian, V. G., Glen G., Smith L., and Xue J. (2008). SHEDS-Multimedia Model Version 3 Technical Manual. U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-08/118.
8. Xue J., Zartarian V.G., and Nako S. The Stochastic Human Exposure and Dose Simulation (SHEDS)-Dietary Model Technical Manual. Prepared for the July 20-22, 2010 EPA FIFRA SAP, Crystal City, VA, 2010b.
9. Isaacs K., Stallings C., Zartarian V.G., Glen G. Stochastic Human Exposure and Dose Simulation (SHEDS) Model for Multimedia, Multipathway Chemicals: Version 4 Residential Module. User Guide. Prepared for the July 20-22, 2010 EPA FIFRA SAP, Crystal City, VA, 2010a.
10. Isaacs K., Xue J., Stallings C., Zartarian V.G. Stochastic Human Exposure and Dose
11. Simulation (SHEDS) Model for Multimedia, Multipathway Chemicals: Version 1 SHEDS-Dietary Module User Guide. Prepared for the July 20-22, 2010 EPA FIFRA SAP, Crystal City, VA, 2010b.
12. Glen G., Zartarian V.G., Smith L., Xue J. The Stochastic Human Exposure and Dose Simulation Model for Multimedia, Multipathway Chemicals (SHEDS-Multimedia): Residential Module. Draft Technical Manual, June 16, 2010. U.S. Environmental Protection Agency, 2010. http://www.epa.gov/heasd/products/sheds_multimedia/files/SHEDS_Residentialv4_Techman ual_06-16-2010.Final.pdf
13. Stallings C., Zartarian V. G., Glen G.. (2008). SHEDS-Multimedia Model Version 3 User Guide. U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-08/118.
14. Zartarian V.G., Xue J., Ozkaynak H.A., Dang W., Glen G., Smith L., Stallings C., 2005. "A Probabilistic Exposure Assessment for Children Who Contact CCA-treated Playsets and Decks Using the Stochastic Human Exposure and Dose Simulation Model for the Wood Preservative Scenario (SHEDS-WOOD)" Final Report. U.S. EPA. Washington, DC, EPA/600/X-05/009.
15. U.S. EPA, 2005, Guidance on Selecting Age Groups for Monitoring and Assessing Childhood Exposures to Environmental Contaminants, Risk Assessment Forum, EPA/630/P-03/003F, NCEA, Washington, DC., coauthors M. Firestone, E. Hubal, J. Moya, V. Zartarian.
16. Zartarian,V.G., Xue J., Özkaynak H., Dang W., Glen G., Smith L., Stallings C., "Probabilistic Exposure Assessment for Children Who Contact CCA-Treated Playsets and Decks Using the Stochastic Human Exposure and Dose Simulation Model for the Wood Preservative Exposure Scenario (SHEDS-Wood)," Draft Preliminary Report, prepared for EPA Office of Pesticide Programs FIFRA (Federal Insecticide, Fungicide, Rodenticide Act) Science Advisory Panel (SAP) meeting, December 3-5, 2003.
17. Zartarian V.G., Xue J., Ozkaynak H., Glen G., Stallings C., Smith L., Dang W., Cook N., Aviado D., Mostaghimi S., Chen J., 2002, "Technical Manual: Using SHEDS-Wood (Stochastic Human Exposure and Dose Simulation Model for a Wood Preservative Scenario) for the Assessment of Children's Exposure and Dose from Treated Wood Preservatives on Playsets and Residential Decks," prepared for EPA Office of Pesticide Programs FIFRA (Federal Insecticide, Fungicide, Rodenticide Act) Science Advisory Panel meeting, August 30, 2002.
18. Stallings C., Glen G., Smith L., Zartarian V.G., Xue J., Ozkaynak H., 2002, "SHEDS-Wood (Stochastic Human Exposure and Dose Simulation Model for a Wood Preservative Scenario)

User's Manual, prepared for EPA, Office of Pesticide Programs FIFRA (Federal Insecticide, Fungicide, Rodenticide Act) Science Advisory Panel meeting, August 30, 2002.
19. WHO. (2002). IPCS *Risk Assessment Terminology. Harmonization Project Document No. 1*, ISBN 92 4 156267 6. Geneva:World Health Organization.
20. Zartarian, V.G., 1996, "A Physical-Stochastic Model for Understanding Dermal Exposure to Chemicals," Ph.D. Dissertation, Stanford University, Stanford, CA.
21. Zartarian, V.G., 1989, "A Comparison of Land Surface Parameterizations for General Circulation Models," Senior Thesis, Princeton University, Princeton, NJ.

Selected Presentations:

International Conferences

1. "Validating Translation Accuracy of Micro-Activity Data From Videotapes," 1995, Zartarian V.G., Leckie J.O., (poster) International Society for Exposure Analysis Conference, August 1995, Noordwijkerhout, The Netherlands
2. "Quantified Micro-Activities of Four Children," 1995, Zartarian V.G., Leckie J.O., (poster) International Society for Exposure Analysis Conference, August 1995, Noordwijkerhout, The Netherlands
3. "Quantifying Micro-Activities from Videotapes," 1995, Zartarian V.G., Ong C.G., Leckie J.O., International Society for Exposure Analysis Conference, August 1995, Noordwijkerhout, The Netherlands
4. "Clothes as a Source of Particles Contributing to the Personal Cloud," 1999, Wallace L.A., Ott W.R., Reed C.H., Zartarian V.G., International Society for Exposure Analysis Conference, September 1999, Athens, Greece
5. "Quantifying children's outdoor micro-activity patterns," 1999, Canales R., Ferguson A., Robertson A.P., Zartarian V., Leckie J.O., International Society for Exposure Analysis Conference, September 1999, Athens, Greece
6. "Methodologies to capture the micro-activity patterns of children relevant to ingestion exposure," 1999, Ferguson A., Canales R., Zartarian V.G., Leckie J.O., Akland G., International Society for Exposure Analysis Conference, September 1999, Athens, Greece
7. "Modeled Residential Chlorpyrifos Exposure and Dose to Children via Dermal Surface Residue Contact and Non-Dietary Ingestion," 1999, Zartarian V., Ozkaynak H., Burke J., Zufall M., Furtaw E., Cohen Hubal E., Sheldon L., International Society for Exposure Analysis Conference, September 1999, Athens, Greece
8. "Modeling Multipathway Exposures of Children and Adults to Pesticides," 1999, Ozkaynak H., Buck R., Xue J., Zartarian V., Burke J., Zufall M., Cohen Hubal E., Sheldon L., Hammerstrom K., International Society for Exposure Analysis Conference, September 1999, Athens, Greece
9. "Modeling Exposure and Dose of Children to Wood Treatment Preservatives from Playsets and Home Decks," 2002, Zartarian VG., Xue J., Dang W., Ozkaynak H., Cook N., Aviado D., Mostaghimi S., Chen, J., International Society for Exposure Analysis Conference, August 2002, Vancouver, B.C
10. "Selecting Age Groups for Assessing & Monitoring Childhood Exposure to Environmental Contaminants," Firestone M., Moya J., Cohen-Hubal E., Zartarian V., ISEA 2006, Paris, France.

11. "Development And Evaluation Of A Model For Estimating Long-Term Average Population Ozone Exposures Of Children", Xue J., Özkaynak H., Zartarian V., Spengler J., poster, ISEA 2006, Paris, France.
12. "Prediction And Evaluation Of Dietary Arsenic Exposure Estimates Using the SHEDS Model," poster, Xue J., Zartarian V., Özkaynak H., ISEA 2006, Paris, France.
13. "Issues And Challenges In Modeling Issues And Challenges In Modeling Children's Longitudinal Exposures: An Ozone Case Study," Ozkaynak H., Xue J., Zartarian V., poster, ISEA 2006, Paris, France.
14. "Assessing Human Exposures for Risk Assessment and Risk Management: A U.S. Perspective," Zartarian V.G. and Ozkaynak H., in the Exposure Session (also invited rapporteur) of the 1st International Conference on Risk Assessment, "Global Risk Assessment Dialogue" November 13-14, 2008 hosted by the Directorate-General for Health and Consumers of the European Commission, Brussels, Belgium.
15. "US Case Studies and Challenges in Exposure Assessment," Zartarian V.G. and Őzkaynak H., July 10-11, 2008 Transatlantic Risk Dialogue meeting in Washington, D.C. hosted by the U.S. Office of Management and Budget and U.S. Office of Science and Technology Policy; purpose of meeting to lay the foundation for future dialogue between the U.S., the E.U., and Canada
16. "EPA's SHEDS-Multimedia Model & Its Potential Application for PAHs," (remote presentation), Concawe Integrated PAH Modeling Workshop, Brussels, Belgium, October 8, 2015
16. "Approaches for Multimedia Pb Exposure Analyses and Linkages with Toxicology: an International Perspective," presentation at Advancing the Pace of Chemical Risk Assessment Workgroup, Helsinki, Finland, October 10-11, 2017

Domestic Conferences

1. "A Statistical Model to Quantify Total Exposure and Intake Dose," 1994, Zartarian V.G., Leckie J.O., (poster) International Society for Exposure Analysis Conference, September 1994, Research Triangle Park, NC
2. "A Pilot Study of Micro-Activity Patterns of Farm Labor Children," 1994, Zartarian V., Streicker J., Rivera A., Cornejo C., Molina S., Valadez O., Leckie J., International Society for Exposure Analysis Conference, September 1994, Research Triangle Park, NC
3. "New Methodologies for Understanding Short-Term Dermal Exposure," 1996, Leckie J.O., Zartarian V.G., (presenting author), International Society for Exposure Analysis Conference, December 1996, New Orleans, LA
4. "Quantified Microlevel Activities for Non-Dietary Ingestion," 1996, Ferguson A.C., Zartarian V.G., Leckie J.O., International Society for Exposure Analysis Conference, December 1996, New Orleans, LA
5. "A Quantitative Definition of Exposure and Related Concepts: Estimates of the Dermal Contact Zone Thickness," 1997, Zartarian V.G., Leckie J.O., International Society for Exposure Analysis Conference, November 1997, Research Triangle Park, NC
6. "Real-time Monitoring of Bread-Toasting Activities from Three Residences," 1998, Zartarian V.G., Ott W., Wallace L., International Society for Exposure Analysis Conference, August 1998, Boston, MA
7. "Demonstration of a Software Application for Quantifying Videotaped Activities," 1998, Zartarian V.G., Ong C.G., Leckie J.O., International Society for Exposure Analysis Conference, August 1998, Boston, MA

8. "An Initial Investigation of a Possible Link Between Elevated Concentrations of Toxic Pollutants in Common Microenvironments and Multiple Chemical Sensitivity," 1998, Naylor K., Zartarian V.G., Ott W., International Society for Exposure Analysis Conference, August 1998, Boston, MA
9. "Estimating Children's Exposures to Pesticides Using EPA's Residential SHEDS Model," 1999, Zartarian V., Ozkaynak H., Burke J., Zufall M., Rigas M., Furtaw E., December 1999, Society for Risk Analysis Conference, Atlanta, GA
10. "Children's Dermal Exposure and Dose: Using an Event-Based Model to Evaluate Measurement Approaches," 1999, Rigas M.L., Zartarian V.G., Hubal E.C., Ozkaynak H., Society for Risk Analysis Conference, December 1999, Atlanta, GA
11. "Determining Particle Emission Source Strengths for Common Residential Indoor Sources using Real-Time Measurements and Piecewise Continuous Solutions to the Mass Balance Equation," 2000, Ott W., Switzer P., Klepeis N., Zartarian V., Brauer M., International Society for Exposure Analysis Conference, October 2000, Monterey, CA
12. "Modeling Aggregate Chlorpyrifos Exposure and Dose to Children," 2000, Zartarian V., Ozkaynak H., Xue J., Glen G., Furtaw E., International Society for Exposure Analysis Conference, October 2000, Monterey, CA
13. "Assessing Residential Exposure Using the Stochastic Human Exposure and Dose Simulation (SHEDS) Model," 2001, Zartarian V.G., Ozkaynak H., Xue J., International Society for Exposure Analysis Conference, November 2001, Charleston, SC
14. "Panel Discussion of Results from Residential Aggregate Exposure Assessment Models," 2001, Price P.S., Zartarian V.G., (co-presenter), International Society for Exposure Analysis Conference, November 2001, Charleston, SC
15. "Quantifying Aggregate Chlorpyrifos Exposure and Dose to Children Using a Physically-Based Two-stage Monte Carlo Probabilistic Model," 2001, Zartarian V.G., Ozkaynak H., Xue J., International Society for Exposure Analysis Conference, November 2001, Charleston, SC
16. "Comparison of Field Measurements from a Children's Pesticide Study Against Predictions from a Physically-Based Probabilistic Model for Estimating Children's Residential Exposure and Dose to Chlorpyrifos," 2001, Hore P., Freeman N., Roy A., Lioy P., Zartarian V., Xue J., Ozkaynak H., Barr D., Needham L., International Society for Exposure Analysis Conference, November 2001, Charleston, SC
17. "International Programme on Chemical Safety (IPCS) Project on the Harmonization of Risk Assessment Approaches: Exposure Assessment Terminology," 2001, Callahan M., Jayewardene R., Norman C., Zartarian V., DiNovi M., Graham J., Hammerstrom K., Olin S., Sonich-Mullin C., International Society for Exposure Analysis Conference, November 2001, Charleston, SC
18. "International Programme on Chemical Safety (IPCS) Project on the Harmonization of Risk Assessment Approaches: Exposure Related Activities," 2001, Hammerstrom K., Sonich-Mullin C., Olin S., Jantunen M., Jayewardene R., Norman C., Beauchamp R., Callahan M., DiNovi M., Graham J., Guiseppi-Elie A., Heinemeyer G., Kohrman K., Özkaynak H., Younes M., Zartarian V., International Society for Exposure Analysis Conference, November 2001, Charleston, SC
19. "Modeling Exposure and Dose of Children to Wood Treatment Preservatives from Playsets and Home Decks," 2002, Zartarian VG., Xue J., Dang W., Ozkaynak H., Cook N., Aviado D., Mostaghimi S., Chen, J., Society for Risk Analysis Conference, December 8-11, 2002, New Orleans, LA

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20. "Quantifying Aggregate Chlorpyrifos Exposure and Dose to Children using a Physically-Based Two-Stage Monte Carlo Probabilistic Model," Zartarian V.G., Xue J., Ozkaynak H, Society for Risk Analysis Conference, December 8-11, 2002, New Orleans, LA
21. "Available Micro-Activity Data and their Applicability to Aggregate Exposure Modeling," 2003 Society for Risk Analysis Conference, Baltimore, MD, December 7-10, 2003, V. Zartarian, J. Xue, J. Driver, M. Pandian, T. Johnson
22. "Quantifying Aggregate Chlorpryifos Exposure and Dose to Children Using a Physically-Based Two-stage Monte Carlo Probabilistic Model," Zartarian V.G., Xue J., Özkaynak H., Society for Risk Analysis Conference, December 7-10, 2003, Baltimore, MD
23. "Modeling Aggregate Exposure and Dose of Children to a Wood Treatment Preservative from Playsets and Home Decks," Zartarian V.G., Xue J., Dang W., Özkaynak H., Cook N., Aviado D., Mostaghimi S., Chen J., Society for Risk Analysis Conference, December 7-10, 2003, Baltimore, MD
24. "Application and Evaluation of an Aggregate Physically-Based Monte Carlo Probabilistic Model for Quantifying Children's Residential Exposure and Dose to Chlorpyrifos," Xue J., Zartarian V.G., Özkaynak H., Liu S., Glen G., Smith L., Residential and Consumer-product Exposure Assessment Symposium 14th Annual Conference of the International Society of Exposure Analysis, Philadelphia, PA, October 17-21, 2004 (presenter)
25. "A Probabilistic Exposure Assessment for Children Who Contact CCA-Treated Playsets and Decks Using the Stochastic Human Exposure and Dose Simulation (SHEDS) Model for the Wood Preservative Scenario," Zartarian V., Xue J., Özkaynak H., Dang W., International Society of Exposure Analysis Conference, October 17-21, 2004, Philadelphia, PA
26. "EPA/ORD/NERL Research Program on Exposure Tools to Advance the Science and Understanding of Cumulative Risk to Communities and Individuals," ISEA 2007, Zartarian V., Schultz B., Quackenboss J., Sheldon L., RTP, NC; co-organized and co-chaired symposium "Exposure Science for Community-Based Cumulative Risk Assessment"
27. "Equations, Assumptions, and Results for Four Post-Application Exposure Models," in workshop entitled, "Residential Exposure Model Algorithms: Comparisons by Exposure Pathway Across Four Models," 2008, Young B., Driver J., Zartarian V., Xue J., Smith L., Glen G., Johnston J., Delmaar C., Tulve N., Evans J., American Chemistry Society (ACS) Conference August 21, 2008, Philadelphia, PA (co-presenter)
28. "Model Estimates of Arsenic Exposure and Dose and Evaluation with 2003 NHANES Data," Xue J., Zartarian V., Wang S., Georgopoulos P., International Society of Exposure Analysis/International Society of Epidemiology Conference, October 12-16, 2008, Pasadena, CA (presenter)
29. "Application of GIS Mapping Tools to Prioritize Community Air Pollution Issues," Hammond D., Barzyk T., Conlon K., Zartarian V., Schultz B., International Society of Exposure Analysis/International Society of Epidemiology Conference, October 12-16, 2008, Pasadena, CA
30. "Summary of EPA Programs and Exposure Tools Relevant to Community-Based Cumulative Risk and Exposure Assessments," Barzyk T.M., Conlon K.C., Chahine T., Zartarian V., Schultz B., Hammond D., International Society of Exposure Analysis/International Society of Epidemiology Conference, October 12-16, 2008, Pasadena, CA
31. "EPA's Community-Friendly Exposure and Risk Screening Tool," Zartarian V., Schultz B., Lakin M., Smuts M., poster presentation, International Society of Exposure Analysis/International Society of Epidemiology Conference, October 12-16, 2008, Pasadena, CA

32. "Application and Evaluation of an Aggregate Physically-Based Two-Stage Monte Carlo Probabilistic Model for Quantifying Children's Residential Exposure and Dose," Zartarian V., Xue J., Tulve N., Tornero-Velez R., Glen G., Smith L., poster presentation, International Society of Exposure Analysis/International Society of Epidemiology Conference, October 12-16, 2008, Pasadena, CA
33. "Cumulative Risk Estimation in Humans after Potential Oral Exposure of Three N-methyl Carbamates: Carbaryl, Aldicarb, and Carbofuran," Zhang X., Gerlach R.W., Tsang A.M., Heravi N.E., Xue J., Harrison L.S., Knaak J.B., Johnson J.C., Tornero-Velez R., Zartarian V.G., Blancato J.N., Goldsmith R., Dary C.C., International Society of Exposure Analysis/International Society of Epidemiology Conference, October 12-16, 2008, Pasadena, CA
34. "State-of-the-Science Probabilistic Aggregate and Cumulative Residential Exposure Models and Recent Residential Exposure Measurement Studies: How the Data and Models Compare," Driver J., Zartarian V., Xue J., Young B., Evans J., International Society of Exposure Analysis/International Society of Epidemiology Conference, October 12-16, 2008, Pasadena, CA (co-presenter)
35. "Variability in Model Evaluation - A Review of EPA Exposure Models," 2008, Williams P., Hubbell B., Weber E., Fehrenbacher C., Hrdy D., Zartarian V., Society for Risk Analysis, December 7-10, 2008, Boston, MA
36. "Modeling the spatial and demographic distribution of human exposure and risk from residential radon in the United States. Chahine T., Subramanian S.V., Zartarian V., Xue J., Schultz B., Levy J.I., Society for Risk Analysis, December 7-9, 2009, Baltimore, MD
37. "Incorporating a Indoor Fugacity-Based Source-to-Concentration Module into SHEDS-Multimedia," Bennett D. and Zartarian V., ISES Conference, Minneapolis, Minnesota, November 1 – 5, 2009
38. "Overview of EPA's Community-Focused Exposure and Risk Screening Tool (C-FERST) and Related Research Needs," V. Zartarian, B. Schultz, A. Geller, presentation to SRA-New England, February 2011, Boston, MA
39. "Exposure Based Prioritization: State of the Science," Vallero D.A., Zartarian, V., ISES Conference, Baltimore, Maryland, October 23 – 27, 2011.
40. "Application and Evaluation of EPA's SHEDS-Multimedia Model to an Aggregate Permethrin Exposure Case Study," J. Xue, V. Zartarian, G. Glen, L. Smith, N. Tulve, R. Tornero-Velez, ISES Conference, Baltimore, Maryland, October 23 – 27, 2011.
41. "Evaluation of EPA's SHEDS-Multimedia Model Against Other Models and Available Measurements Data," J. Xue, V. Zartarian; ISES Conference, Baltimore, Maryland, October 23 – 27, 2011.
42. "EPA's C-FERST (Community-Focused Exposure and Risk Screening Tool): Overview and Application to Community Case Studies," V. Zartarian, B. Schultz, A. Geller, T. Barzyk, S. O'Shea. ISES Conference, Baltimore, Maryland, October 23 – 27, 2011.
43. "Extending Your Community-Based Research to Communities Across the U.S. and Beyond: EPA's C-FERST (Community-Focused Exposure and Risk Screening Tool)", B. D. Schultz, V. Zartarian, A. Geller, T. Barzyk, S. O'Shea, ISES Conference, Baltimore, Maryland, October 23 – 27, 2011.
44. "Exposure to Polychlorinated Biphenyls (PCBs): Biomarker Reflection and Modeling Prediction for General U.S. Population," J. Xue, S. V. Liu, V. Zartarian, A. Geller, B. D. Schultz, ISES Conference, Seattle, Washington, October 28 – November 1, 2012.

45. "Combining Nationally-available Chemical and Non-chemical Exposure Estimates in Community Assessments Through C-FERST," B. D. Schultz, V. Zartarian, A. Geller, S. O'Shea, ISES Conference, Seattle, Washington, October 28 – November 1, 2012.
46. "EPA's SHEDS-Multimedia Model: Pyrethroids Exposure Estimates and Evaluation Against Measurements Data," J. Xue, V. Zartarian, K. Isaacs, R. Tornero-Velez, ISES Conference, Seattle, Washington, October 28 – November 1, 2012.
47. "Estimating Tribal Exposures to Persistent Toxicants from Fish Consumption," V. Zartarian, J. Xue, B. Mintz, M. Weber, K. Bailey, A. Geller, ISES Conference, Seattle, Washington, October 28 – November 1, 2012.
48. "Supporting Sustainable and Healthy Tribes," K. Bailey, V. Zartarian, M. Weber, A. Geller, M. Rodia, D. Heggem, C. Erickson, S. O'Shea, A. Martin, K. Bailey, ISES Conference, Seattle, Washington, October 28 – November 1, 2012.
49. "Community and Tribal Use of Open Data: Experiences with EPA's Community-FERST and Tribal-FERST Decision Support Tools," A. Geller, V. Zartarian, B. D. Schultz, S. O'Shea, ISES Conference, Seattle, Washington, October 28 – November 1, 2012.
50. "C-FERST and Other EPA Tools: Facilitating Community Decision-making and Informing HIA Assessments," V. Zartarian, F. Fulk, J. Rhodus, Second National HIA Meeting, HIA 101 Track, Washington, DC, September 25, 2013.
51. "Innovative lead exposure modeling to inform public health decision making," V. Zartarian, J. Xue, R. Tornero-Velez, J. Brown, T. Speth, R. Murray, J. Garland, APHA Conference, Atlanta GA, November 7, 2017.

Invited Presentations, Lectures, and Seminars:

Academic Lectures

"Exposure Science," George Washington University, School of Public Health and Health Services, Continuing Education Course: Public Health Risk Science and Management, Sponsored by the GWU Center for Risk Science and Public Health, September 2011, Washington, DC. (invited by former EPA/ORD Assistant Administrator)

"Summary of EPA's Draft Probabilistic Assessment for Children's Exposures to CCA-Treated Wood," Zartarian VG., Xue J., Ozkaynak H., Dang W., Smith, L., Glen, G., Introduction to Human Exposure Analysis Course Lecture, Stanford University, May 12, 2004, Stanford, CA

"Quantifying Aggregate Pesticide Exposure and Dose to Children using a Physically-Based Probabilistic Model," Zartarian V.G., Xue J., Ozkaynak H., Kresge Center Organics Core, Harvard University, March 24, 2003, Boston, MA

"Example Application of a Residential Aggregate Human Exposure Model," Johns Hopkins University School of Hygiene and Public Health, Risk Sciences and Public Policy Institute, Case Studies/Special Topics Course, March 11, 2002, Baltimore, MD

"Models for Assessing Dermal and Non-Dietary Ingestion Exposure," Zartarian V., Johns Hopkins University School of Hygiene and Public Health, Risk Sciences and Public Policy Institute, Case Studies/Special Topics Course, May 12, 1999, Baltimore, MD

"Human Exposure: Concepts, Definitions, and EPA Research Initiatives," Zartarian V., Johns Hopkins University School of Public Health, Environmental Health Engineering Special Studies, A Pilot Course in Exposure Measurement and Assessment, April 9, 1999, Baltimore, MD

"A Physically-Based Stochastic Model for Estimating Dermal and Non-Dietary Ingestion Exposure and Dose Using a Time-Dependent, Microlevel Contact Event Approach," Zartarian V., Environmental and Occupational Health Sciences Institute, March 30, 1999, Piscataway, NJ

"An Overview of Human Exposure to Chemicals," Zartarian V., Stanford University Graduate Seminar on Human Exposure to Environmental Pollutants, September, 1997, Stanford, CA

"New Methods for Understanding Short-Term Dermal Exposure," Zartarian V., University of Washington, Department of Environmental Health, February, 1996, Seattle, WA

"An Overview of Human Exposure to Air Pollution," Zartarian V., Stanford University Graduate Course on Air Pollution Physics and Chemistry, October, 1995, Stanford, CA

"Pesticide Exposure of Agricultural Children," Zartarian V., University of Davis Law School, Davis, CA, April, 1995; Stanford Center for Chicano Research Advisory Board, May, 1995, Stanford, CA; Stanford Youth Environmental Science Program for high school students, July, 1994, 1995, Stanford, CA

"Development of a Total Human Exposure Model," Zartarian V., Stanford Environmental Engineering and Science Program Seminar, October, 1993, Stanford, CA; Stanford Biostatistics Seminar, March, 1994, Stanford, CA

Industry Presentations:

"EPA activities on analyses and ranking of data gaps in children's exposure modeling," Strategic Science Team (SST) of the American Chemistry Council's Long-Range Research Initiative (ACC LRI) meeting, Zartarian V., May 23-24, 2006, Arlington, VA

"Quantified Children's Micro-Level Outdoor Activity Data from Stanford University Videotapes," Zartarian V., NERL Meeting with the Outdoor Residential Exposure Task Force (ORETF), June 11, 2002, Research Triangle Park, NC

"Methodology for Assessing Exposure of Children to Residential Chemical Residues," Zartarian V., Workshop on the Characterization of Residential Activity Patterns of Children and Their Use in Exposure Assessment, sponsored by the Outdoor Residential Exposure Task Force, September 15-16, 1998, Research Triangle Park, NC

"Methodologies to Quantify Children's Non-Dietary Exposure to Residential Chemicals," Zartarian V.G., Leckie J.O., Piperonyl Butoxide/Pyrethrin/MGK-264/Deltamethrin Non-Dietary Exposure Task Force, March, 1998, Arlington, VA

"Quantifying Children's Activity Patterns on Residential Lawns Using Videotaping Methods," Zartarian V.G., Leckie J.O., Outdoor Residential Exposure Task Force, March, 1998, Stanford, CA

Presentations at Community and Tribal Meetings

- EPA ORD-Region 1 school HIA presentation to Springfield, MA City stakeholders, July 2014
- T-FERST presentation, EPA Region 1 Tribal Operations Committee, August 2012
- T-FERST presentation and demo to National Tribal Caucus, Washington, DC, July 2012
- T-FERST demo and presentation on the initial pilot with the Passamaquoddy Pleasant Point ME tribe at the National EPA-Tribal Science Council (TSC) Semi-Annual Business Meeting, Orono, ME, June 2011
- "Methyl Mercury Exposure in Tribal Populations from Fish Consumption: Probabilistic SHEDS-Dietary Model Analyses Using 1996-2006 NHANES and 1990-2003 TDS Data," V. Zartarian, A. Geller, J. Xue, National Tribal Science Forum, June 2011, Traverse City, MI
- C-FERST demo, Springfield CARE mtg (Amherst, MA), June 2011

- "Tribal-FERST," V. Zartarian, K. Bailey, Region 9 RTOC (Regional Tribal Operations Committee) meeting in AZ, February 2011
- C-FERST presentation to Portland, ME CARE grantees, October 2010. V. Zartarian, R. Julien (EPA/Region 1),
- T-FERST presentation, October 2010, V. Zartarian, K. Bailey, A. Geller, M. Rodia, Annual United South and Eastern Tribes (USET) meeting, Verona, NY.
- T-FERST proposal to tribes, V. Zartarian, A. Geller, National Tribal Science Forum, June 2010, Traverse City, MI

Selected Government Agency Presentations and Workshops

"Overview of EPA/ORD's SHEDS-IEUBK Pb Modeling Approach," External Peer Review Meeting for EPA's draft report, Proposed Modeling Approaches for a Health-Based Benchmark for Lead in Drinking Water in Washington, D.C. 6/27-28/2017

"Approaches for Multimedia Pb Exposure Analyses and Linkages with Toxicology: an International Perspective," presentation at Advancing the Pace of Chemical Risk Assessment Workgroup, Helsinki, Finland, October 10-11, 2017

"Overview of EPA ORD's Pb Science," presented to EPA's Science Advisory Board, 6/1/18, DC

"PFAS Exposure Science," plenary talk, 2/2018 Federal PFAS Information Exchange, Bethesda, MD

"Multimedia Modeling of Children's Lead Exposure and Water Lead Monitoring Research to Inform Public Health Decisions." Valerie Zartarian and Tom Speth, presentation to ECOS on 4/30/18 EPA Tools and Resources Webinar

"Examples of Sustainability Assessments," V. Zartarian, ORD Sustainability Workshop: Research Today for a Sustainable Tomorrow, April 16-17, 2014, Research Triangle Park, NC

"Overview of ORD's intramural tribal research," V. Zartarian, to SHC Program and Regional Office partners, April 2, 2014 (webinar)

C-FERST demonstration, A. Geller and V. Zartarian, Workshop on Promoting Sustainability through Net Zero Strategies, Feb 25-26, 2014, RTP, NC.

Health Impact Assessment, Joint Meeting of the Environmental Research Institute of the States (ERIS) Board and US EPA Office of Research and Development (ORD), May 15-16, 2013, Las Vegas, NV

C(ommunity)/T(ribal)-FERST and EnviroAtlas, V. Zartarian and R. Gentry, ERIS (Environmental Research Institute of the States) Board Meeting, May 2013, Las Vegas, NV

C-FERST presentation to the NEJAC Research Working Group, August 2012, V. Zartarian and A. Geller

"Citizen Science using Air Pollution Sensors & EPA's C-FERST" presentation at the EPA Air Sensors Workshop, V. Zartarian, S. O'Shea, R. Williams, RTP, NC, 2012

"Health Impact Assessments: Linking ORD Research to Community Decisions," F. Fulk and V. Zartarian, SHC Science Update for EPA/ORD Staff Meeting, February 2013

"HIA to Evaluate Proposed Remediation Scenarios for Indoor Sources and Near-Roadway Transportation Exposures for an EJ Community School in Springfield, MA", January 2013, V. Zartarian, F. Fulk, M. Smuts, G. Frantz, Region 1 – ORD RESES Project Overview for Regional Children's Health Coordinators

"EPA's Community-Focused Exposure and Risk Screening Tool: Overview & Demonstration," A. Geller and V. Zartarian, ORD presentation to the NEJAC (National Environmental Justice Advisory Council), July 24, 2012, Washington, DC.

"Overview of EPA's C-FERST," V. Zartarian, 9/13/12 Webinar Presentation, NIH National Library of Medicine, Specialized Information Services

"C-FERST," EPA/ORD/NERL workshop on Atlas/ReVA/C-FERST Integration, November 2010

C-FERST demo to NYC Health Dept interested in collaboration for Region 2 CARE project, October 2010

Invited C/T-FERST briefings and demos to EPA Office of Science Advisor; CREM; CARE team; Regional CARE Project Officers; OCSPP; OAR; OW; OEJ; OSP; OEI; Regional Science Liasons; EJ Coordinators; Region 1 IO, air toxics unit, tribal group, communities coordinating committee

"SHEDS-Multimedia Dietary Module and Permethrin Case Study Results." J. Xue, V. Zartarian, K. Isaacs, S. Nako," EPA FIFRA Scientific Advisory Panel Meeting on Scientific Issues related to SHEDS-Multimedia version 4, Peer consult on PBPK Modeling, and a SHEDS-PBPK Permethrin Study, July 20-22, 2010, Arlington, VA

"SHEDS-Multimedia Residential Module and Permethrin Case Study Results," V. Zartarian, J. Xue, K. Isaacs, G. Glen, L. Smith, EPA FIFRA Scientific Advisory Panel Meeting on Scientific Issues related to SHEDS-Multimedia version 4, Peer consult on PBPK Modeling, and a SHEDS-PBPK Permethrin Study, July 20-22, 2010, Arlington, VA

"SHEDS-Multimedia Model Evaluation Efforts," V. Zartarian, J. Xue, EPA FIFRA Scientific Advisory Panel Meeting on Scientific Issues related to SHEDS-Multimedia version 4, Peer consult on PBPK Modeling, and a SHEDS-PBPK Permethrin Study, July 20-22, 2010, Arlington, VA

"EPA's SHEDS-Dietary Model," USDA Office of Risk Assessment and Cost-Benefit Analysis, ORACBA Risk Forum, V. Zartarian and J. Xue, March 2010, Washington, DC

"EPA's C-FERST," EPA Disproportionate Impacts Symposium, March 2010, Washington, DC
C-FERST demo, June 2010, NIEHS Partnerships for Environmental Health Program, V. Zartarian and T. Barzyk (webinar)

"Review and Application of Existing Tools and Needs to Assess Real-World Cumulative Exposure and Risk" poster presentation for Board of Scientific Councilors (BOSC) Peer Review of ORD's Human Health Research Program, January 13-15, 2009

"Community Case Study Examples: Tools and Methods to Inform Cumulative Risk Assessments," Advancing the Science of Cumulative Risk Assessment: Alignment of ORD Research with Agency Needs, D. Hammond, T. Barzyk, K. Conlon, T. Chahine, V. Zartarian, B. Schultz, July 29, 2009, ORD-Region Cumulative Risk Assessment Workshop, Chicago, IL

"Assessing Human Exposures for Risk Assessment and Risk Management: A U.S. Perspective," Zartarian V.G. and Ozkaynak H., in the Exposure Session (also invited rapporteur) of the 1st International Conference on Risk Assessment, "Global Risk Assessment Dialogue" November 13-14, 2008 hosted by the Directorate-General for Health and Consumers of the European Commission, Brussels, Belgium.

"US Case Studies and Challenges in Exposure Assessment," Zartarian V.G. and Őzkaynak H., July 10-11, 2008 Transatlantic Risk Dialogue meeting in Washington, D.C. hosted by the U.S. Office of Management and Budget and U.S. Office of Science and Technology Policy; purpose of meeting to lay the foundation for future dialogue between the U.S., the E.U., and Canada

"Session I Overview: Aggregate and Cumulative Risk" (oral presentation) at External Peer Review of EPA/ORD/NERL/HEASD's Research Program, September 22-24, 2008, Research Triangle Park, NC and 3 posters of research on:

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- "Tools to Advance the Science and Understanding of Cumulative Risk to Communities and Individuals"
- "Development of ORD/NERL's Model to Estimate Aggregate and Cumulative Exposures to Chemicals"
- "Assessing Children's Exposures to the Wood Preservative CCA (Chromated Copper Arsenate) on Treated Playsets and Decks"

"Addressing Model Uncertainty and Best Practices for Model Evaluation," EPA Region Training Course: "Everything You Need to Know About Models and Their Role in Environmental Decision Making," Zartarian V.G., Sunderland E., October 23, 2008, Boston, MA

"Specific Examples of Life Cycle Model Evaluation: SHEDS-Multimedia," Zartarian V., Ozkaynak H., NERL Modeling Workgroup, USEPA Office of Research and Development, National Exposure Research Laboratory, September 9, 2008, Research Triangle Park, NC

"Briefing on ORD's Community-Friendly Exposure and Risk Screening Tool (C-FERST)," Zartarian V., and Schultz B., presentation to EPA CARE Administrative Team, September 2, 2008.

"Briefing on Community-Friendly Exposure and Risk Screening Tool (C-FERST)," Zartarian V. and Schultz B., for ORD/NERL Laboratory Director and Associate Director for Human Health, August 28, 2008, Research Triangle Park, NC

"ORD/NERL's Community-Friendly Exposure & Risk Screening Tool, C-FERST: A Tool for Level 1 CARE Projects," Zartarian V., Schultz B., Lakin M., Smuts M., Fenton K., Reyes D., pre-briefing for Principal Deputy AA for OPPTS, August 19, 2008

"Update on ORD C-FERST Activities," Zartarian V., presentation by phone to EPA Community-Based Technical Support Forum, August 19, 2008

"Demonstration of SHEDS Dietary Model and Update on SHEDS Permethrin Case Study," Zartarian V. and Xue J., Meeting with OPP/HED/CEB, July 14-15, 2008, Arlington, VA

"ORD's Community-Friendly Exposure and Risk Screening Tool (C-FERST)," Zartarian V. and Schultz B., presentation to EPA CARE Project Officers, April 23, 2008.

"Exposure Algorithms Comparison," Zartarian V., Xue J., Tulve N., Vogel D., Evans J., OPP/HED & ORD/NERL Workshop, February 6, 2008, Research Triangle Park, NC

"Refinement and Application of the SHEDS-Multimedia Exposure Model for Pyrethroids Assessment," Zartarian V., Xue J., OPP/HED & ORD/NERL Workshop, February 6, 2008, Research Triangle Park, NC

"Overview of ORD/NERL's SHEDS-Multimedia Model," Schultz B., Zartarian V., Xue J., Presentation to ORD/NERL Laboratory Director, October 16, 2007, Research Triangle Park, NC

"Overview of SHEDS-Multimedia Aggregate Residential and Dietary Models, and Future Plans," Zartarian V., OPP FIFRA Scientific Advisory Panel Meeting, August 14-15, 2007, Arlington, VA

"SHEDS-Multimedia version 3 (Aggregate) Residential Model Structure and Approach," Zartarian V., Xue J., Smith L., Glen G., Stallings C., OPP FIFRA Scientific Advisory Panel Meeting, August 14-15, 2007, Arlington, VA

"Plans for Extending SHEDS-Multimedia version 3 to version 4," Zartarian V., Xue J., Smith L., Glen G., Stallings C., Isaacs K., OPP FIFRA Scientific Advisory Panel Meeting, August 14-15, 2007, Arlington, VA

"Exposure Tools for Advancing the Science and Understanding of Cumulative Risk to Communities and Individuals," Zartarian V., presentation to Region 1 and ORD National Program Director for Human Health, February 13, 2007, Boston, MA

"How Can the RSC Help Enhance ORD-Region 1 Communications to Address Regional Science Needs?" Zartarian V. and Lovely W., 10/26/06 Region 1 Regional Science Council (RSC) Retreat, Boston, MA

"The Stochastic Human Exposure and Dose Simulation (SHEDS) Model and its application to pyrethroids through collaboration with OPP," Zartarian V., Xue J., Meeting with OPP/HED/CEB, August 8, 2006, Arlington, VA

"ORD/OPP NMC collaboration using the SHEDS-Multimedia model," Zartarian V., Xue J., Meeting with OPP/HED/CEB, August 8, 2006, Arlington, VA

"SHEDS-Multimedia version 3 demonstration," Zartarian V., Xue J., Meeting with OPP/HED/CEB, August 8, 2006, Arlington, VA

"SHEDS-Pesticides: Model Overview," Zartarian V., Xue J., U.S. EPA, Office of Research and Development National Exposure Research Laboratory, presented to OPP Health Effects Division, January 3, 2006, Arlington, VA

"SHEDS-Pesticides: Model Overview and Status," Zartarian V., Xue J., U.S. EPA, Office of Research and Development National Exposure Research Laboratory, presented to OPP Health Effects Division, April 13, 2005, Arlington, VA

EPA/ORD Exposure Factors Program Peer Involvement Workshop, June 7 and 8, 2004, Washington, DC (participated by telephone)

"Assessing Children's Exposures to the Wood Preservative CCA on Treated Playsets and Decks," Zartarian V., Xue J., Özkaynak H., Dang. W., poster presentation at US EPA Science Forum 2004: Healthy Communities and Ecosystems, June 1-3, 2004, Washington, DC

The Science of Environmental Justice Working Conference, co-sponsored by EPA/ORD, EPA/Region 1, and the Boston University School of Public Health, May 24-26, 2004, Boston, MA (provided CCA poster)

"Summary of EPA's Draft Probabilistic Assessment for Children's Exposures to CCA-Treated Wood," Zartarian V.G., Xue J., Ozkaynak H., Dang W., Smith, L., Glen, G., Regional Risk Assessors Meeting, May 5, 2004, Boston, MA

"Summary of Draft Probabilistic Assessment for Children's Exposures to CCA-Treated Wood," Zartarian V.G., Xue J., Ozkaynak H., Dang, W., Smith L., Glen G., ORD/OPPTS Seminar Series, April 7, 2004, Arlington, VA

"Summary of SHEDS-Wood Model Methodology and Inputs for CCA Assessment," Zartarian V.G., Xue J., Ozkaynak H., Dang, W., Glen G., Smith L., OPP FIFRA SAP Meeting, December 3-5, 2003, Arlington, VA

"Presentation of SHEDS-Wood ADD and LADD results for CCA Assessment, including variability, sensitivity, and uncertainty analysis results," Zartarian V.G., Xue J., Ozkaynak H., Dang, W., Glen G., Smith L., OPP FIFRA SAP Meeting, December 3-5, 2003, Arlington, VA

"Assessing Children's Exposures to Pesticides: Important Applications of the Stochastic Human Exposure and Dose Simulation (SHEDS) Model," Zartarian V., Xue J., Özkaynak H., poster presentation at US EPA Science Forum 2003: Partnering to Protect Human Health and the Environment, May 5-7, 2002, Washington, DC

"Quantifying Aggregate Pesticide Exposure with NERL's Physically-Based Probabilistic SHEDS Model," Zartarian V.G., Xue J., Ozkaynak H., Meeting to Discuss the Fate and Transport of Residentially Applied Pesticides: Models and Research Needs, hosted by EPA NERL, April 2-3, 2003, Research Triangle Park, NC

"A New Tool to Assess Dermal and Multimedia Multipathway Exposures to Environmental Chemicals: EPA/ORD's SHEDS Model and its Role in Improving Risk Assessment and

Risk Management Decisions," Zartarian V.G. and Ozkaynak H., presented to EPA Office of Solid Waste (OSW) Risk Team Meeting, February 6, 2003, Arlington, VA

Meeting of the World Health Organization, International Programme on Chemical Safety, Planning Workgroup on Exposure Assessment, November 11-13, 2002, Geneva, Switzerland (participated by telephone)

"Using the SHEDS Model to Assess Children's Exposure and Dose from Treated Wood Preservatives on Playsets and Residential Decks," Zartarian V.G., Xue J., Ozkaynak H., Glen G., Stallings C., Smith L., Dang W., Cook N., Aviado D., Mostaghimi S., Chen J., EPA Office of Pesticide Programs FIFRA (Federal Insecticide, Fungicide, Rodenticide Act) Science Advisory Panel Meeting, August 30, 2002, Arlington, VA

"EPA/ORD/NERL's Stochastic Human Exposure and Dose Simulation (SHEDS) Model," Zartarian V.G., Ozkaynak H., Xue J., Smith L., Glen G., Stallings C., presented to EPA Office of Pollution Prevention and Toxics, Washington, DC, July 15, 2002, Arlington, VA

"Examples of Key Collaborative Efforts: Pesticide Exposure Modeling," Zartarian V.G., Peer Review of NERL's Human Exposure University Partnerships Agreement Modeling Program, Arlington, VA, July 8-10, 2002

"Modeling Activities Addressing National Issues: Aggregate Exposure Model Comparison Workshop," Zartarian V.G., Xue J., Ozkaynak H., Glen G., Smith L., Stallings C., Peer Review of NERL's Human Exposure University Partnerships Agreement Modeling Program, July 8-10, 2002, Arlington, VA

"Overview of EPA/ORD/NERL Pesticide Exposure Modeling Research," Zartarian V., Briefing to EPA/ORD Assistant Administrator Paul Gilman, NERL Mid-Year Review, June 18, 2002, Research Triangle Park, NC

"An Innovative Model to Assess Children's Exposures to Environmental Chemicals: SHEDS-Pesticides," Zartarian V., Xue J., Özkaynak H., poster presentation at US EPA Science Forum 2002: Meeting the Challenges, May 2, 2002, Washington, DC

"SHEDS-Pesticides: Children's Exposure and Dose to Arsenic and Chromium from CCA-Treated Playsets and Home Decks," Zartarian, VG., Xue, J., Dang, W., Ozkaynak, H., Cook, N., Aviado, D., Mostaghimi, S., Chen, presented for a briefing on CCA to Stephen Johnson, EPA Office of Pollution Prevention and Toxics, Assistant Administrator, April 2002, Washington, DC

"Overview of the SHEDS Model for Pesticides," Zartarian V.G., Xue J., Ozkaynak H., presented to EPA Office of Air Quality Planning and Standards, March 21, 2002, Research Triangle Park, NC

"SHEDS-Pesticides: Preliminary CCA-Treated Wood Case Study Results," Zartarian V.G., Xue J., Ozkaynak H., February, 2002, presented to EPA Office of Pesticide Programs, Antimicrobials Division, Arlington, VA

"SHEDS-Pesticides: CCA-Treated Wood Case Study," Zartarian V.G., Xue J., Ozkaynak H., November 27, 2001 and January 9, 2002, presented to EPA Office of Pesticide Programs, Antimicrobials Division, Arlington, VA

"SHEDS-Pesticides: Model Approach, Interface, and Example Results," Zartarian V.G., Xue J., Ozkaynak H., presented to EPA Office of Pesticide Programs, Antimicrobials Division, November 14, 2001, Arlington, VA

"SHEDS-Pesticides: Model Overview and Scenario Outputs for the Aggregate Residential Model Comparison Workshop," Zartarian V.G., Ozkaynak H., Xue J., Smith L., Glen G., Stallings C., Aggregate Residential Exposure Model Comparison Workshop, October 10-11, 2001, Research Triangle Park, NC

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CURRICULUM VITAE
VALERIE G. ZARTARIAN, Ph.D.

"Recent Developments involving the SHEDS-Pesticides Model," Zartarian V.G., Ozkaynak H., Xue J., University Partnerships Agreements, 3rd Annual Meeting, August 28-29, 2001, Research Triangle Park, NC

"The SHEDS Model for Pesticides," Zartarian V., EPA Office of Research and Development Exposure-to-Dose Modeling Workshop, July 10-11, 2001, Research Triangle Park, NC

"Summary of State-of-Science and Practice Regarding Micro-Activity Data," Zartarian V.G., Workshop on Micro/Macro-Activity Data Needs to Improve Multi-Media, Multi-Pathway Exposure/Intake Dose, May 17-18, 2001, Research Triangle Park, NC

"The SHEDS Model for Pesticides," Zartarian V.G., Ozkaynak H., Xue J., Furtaw E., Rigas M., Blancato J., presented at EPA Office of Pesticide Programs, February 15, 2001, Arlington, VA

"The Stochastic Human Exposure and Dose Simulation Model for Pesticides (SHEDS-Pesticides): Research Planning Strategy," Zartarian V.G., Ozkaynak H., Furtaw E., Rigas M., Blancato J., Joint Research Planning Meeting for University Partnership Agreements, EPA National Exposure Research Laboratory, June 21-22, 2000, Research Triangle Park, NC

"The Stochastic Human Exposure and Dose Simulation Model for Pesticides (SHEDS-Pesticides): Model Overview and Application," Zartarian V.G., Ozkaynak H., Overview of Human Exposure Research and Scientific Needs under GPRA Goals 3, 4, and 8, EPA NERL, May 10-11, 2000, Research Triangle Park, NC

"Human Exposure: Concepts, Definitions, and HEASD Research Initiatives," Zartarian V., McCurdy T., EPA Office of Research and Development, National Exposure Research Laboratory, Human Exposure and Atmospheric Sciences Division, Atmospheric Chemistry and Physics Branch Meeting, April 6, 2000, Research Triangle Park, NC

"NERL's Residential SHEDS Model for Pesticides: Research and Data Needs," Ozkaynak H., Zartarian V., Furtaw E., Rigas M., Blancato J., NERL Dermal Studies Meeting, March 14-15, 2000, Research Triangle Park, NC

"The Stochastic Human Exposure and Dose Simulation Model for Pesticides," Zartarian V., Özkaynak H., Burke J., Zufall M., Rigas M., Furtaw E. Xue J., Aggregate Exposure Assessment Model Evaluation and Refinement Workshop, International Life Sciences Institute, Health and Environmental Sciences Institute, October 19-21, 1999, Baltimore, MD

"Status of Advances in Probabilistic Pesticide Exposure and Dose Modeling by ORD/NERL," Ozkaynak H., Zartarian V.G., EPA Office of Pesticide Program's FIFRA (Federal Insecticide, Fungicide, Rodenticide Act) Science Advisory Panel Meeting, September 21, 1999, Arlington, VA

"Residential SHEDS Model for Pesticides," Ozkaynak H., Zartarian V.G., Burke J., Zufall M., Furtaw E., Rigas M., EPA Office of Research and Development, National Exposure Research Laboratory, Joint Research Planning Meeting for University Partnership Agreements, April 27-28, 1999, Research Triangle Park, NC

Dermal Exposure Workshop, sponsored by the EPA Office of Research and Development, National Exposure Research Laboratory, Human Exposure Research Program, September 17, 1998, Research Triangle Park, NC, Panel Member

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DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control
and Prevention (CDC)
Atlanta GA 30341-3724

May 16, 2018

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

Dear Administrator Pruitt:

The Centers for Disease Control and Prevention (CDC) is soliciting nominations for membership on the Lead Exposure and Prevention Advisory Committee (LEPAC) and would like to request the involvement of your agency.

The LEPAC will consist of 15 Federal and non-Federal experts in fields associated with lead screening, the prevention of lead exposure, and services for individuals and communities affected by lead exposure. Nominations are being sought for individuals who have expertise and qualifications necessary to contribute to the accomplishment of the committee's objectives. Nominees with expertise in the fields of epidemiology, toxicology, mental health, pediatrics, early childhood education, special education, diet and nutrition, and environmental health are needed.

We would like to request that Ruth A. Etzel, M.D., Ph.D., Director of the Office of Children's Health Protection, be nominated as well as Michael P. Firestone, Ph.D., Acting Deputy Director of the Office of Children's Health Protection, as an alternate.

The LEPAC's charter allows for representation from the U.S. Environmental Protection Agency (EPA) to provide scientific and programmatic expertise; represent and advocate your agency's viewpoint during the LEPAC deliberation; and keep your agency informed of the LEPAC activities, outcomes, and recommendations. The representative will perform the duties of the LEPAC as described in the enclosed charter. Travel costs will be the responsibility of your agency.

The LEPAC was established by Public Law 114-322 (Water Infrastructure Improvements for the Nation Act), Section 2203 (42 U.S.C. §300j-27). Section 301 of the Public Health Service Act (42 U.S.C. §241) provides that the Secretary shall render assistance to public authorities in the diagnosis, treatment, control and prevention of physical and mental diseases and impairments of persons. In doing so, the Secretary is authorized to make available information as to the practical application of research and is authorized to obtain the assistance and advice of experts and consultants. Section 311 of the Public Health Service Act (42 U.S.C. §243) authorizes the Secretary to assist and advise state and local authorities in matters relating to the preservation and improvement of the public's health.

By June 15, 2018, if possible, please provide the resume or Curriculum Vitae of your proposed agency nominee and an alternate to Ms. Perri Ruckart, Designated Federal Officer for LEPAC, at PRuckart@cdc.gov. Any questions relating to LEPAC may also be directed to Ms. Ruckart by email or by phone at 770-488-3808.

The slate of nominees will be sent to the Secretary of the U.S. Department of Health and Human Services (HHS) who will select and notify candidates of their appointment as soon as the HHS selection process is completed.

We look forward to receiving your agency's nominees and a successful collaboration with EPA through his or her service on this important project.

Sincerely,

Patrick N Breysse, PhD, CIH
Director
National Center for Environmental Health/
Agency for Toxic Substances and Disease Registry
Centers for Disease Control and Prevention

Enclosure

cc: Ruth A. Etzel

CURRICULUM VITAE
RUTH ANN ETZEL

PERSONAL DATA

Place of Birth: Ex. 6

Work Address: US Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

EDUCATION	DATES	DEGREE
Robert Wood Johnson Clinical Scholar University of North Carolina Chapel Hill, North Carolina	1983-85	
Department of Epidemiology School of Public Health University of North Carolina Chapel Hill, North Carolina	1983-85	Ph.D. August, 1985
Pediatrics Resident North Carolina Memorial Hospital Chapel Hill, North Carolina	1980-83	
University of Wisconsin School of Medicine Madison, Wisconsin	1976-80	M.D. May, 1980
Honors College University of Minnesota Minneapolis, Minnesota	1973-76	B.A. in biology Summa Cum Laude March, 1976
Saint Olaf College Northfield, Minnesota		1972-73

EMPLOYMENT	DATES
Director	2015-present

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Office of Children's Health Protection
U.S. Environmental Protection Agency
Washington, D.C.

Professor of Epidemiology 2012-2017
Joseph J. Zilber School of Public Health
University of Wisconsin
Milwaukee, Wisconsin

Medical Officer 2009-2012
Interventions for Healthy Environments
Department of Public Health and Environment
World Health Organization
Geneva, Switzerland

Research Director 2001- 2008
Southcentral Foundation
Alaska Native Medical Center
Anchorage, Alaska

Director, Human Health Sciences Division 1998-2001
Office of Public Health and Science
Food Safety and Inspection Service
Washington, D.C.

Assistant Director for Special Projects 1997-1998
Emergency, Refugee and International Health
National Center for Environmental Health
Centers for Disease Control and Prevention
Atlanta, Georgia

Chief, Air Pollution and Respiratory Health Branch 1991-1996
National Center for Environmental Health
Centers for Disease Control and Prevention
Atlanta, Georgia

Medical Epidemiologist 1987-1990
Center for Environmental Health and
Injury Control
Centers for Disease Control
Atlanta, Georgia

EMPLOYMENT DATES

Epidemic Intelligence Service Officer 1985-1987

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Center for Environmental Health
Centers for Disease Control
Atlanta, Georgia

UNIFORMED SERVICE

United States Public Health Service 1985-2005

FACULTY APPOINTMENTS

Professor of Epidemiology 2012-2017
Joseph J. Zilber School of Public Health
University of Wisconsin
Milwaukee, Wisconsin

Visiting Professor 2013-2016
Chiba University
Chiba, Japan

Adjunct Professor 2013-present
Clinical and Translational Sciences Institute
Medical College of Wisconsin
Milwaukee, Wisconsin

Adjunct Professor 2012-present
Department of Population Health Sciences
University of Wisconsin School of Medicine and Public Health
Madison, Wisconsin

Adjunct Professor 2003-present
Department of Community and Preventive Medicine
Mount Sinai Medical School
New York, New York

Professorial Lecturer – Environmental Occupational Health 2000-present
George Washington University School of Public Health
and Health Services
Washington, D.C.

Clinical Assistant Professor of Pediatrics 1987-1993
Emory University School of Medicine
Atlanta, Georgia

CERTIFICATION/LICENSURE

National Board of Medical Examiners Part III, Certificate Number 237791, 1980

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Certifying Exam in General Pediatrics (passed written section in September 1983, orals in April, 1985)

Certified by American Board of Preventive Medicine (General Preventive Medicine / Public Health), 1988

CERTIFICATION/LICENSURE

Medical License No. 25705, North Carolina
Medical License No. 27810, Georgia
Medical License No. 4752, Alaska (until December 2012)

PROFESSIONAL SOCIETIES

American Academy of Pediatrics – Fellow
American College of Preventive Medicine – Fellow
International Society for Children's Health and the Environment
Collegium Ramazzini – Fellow

PROFESSIONAL SERVICE

Reviewer: The New England Journal of Medicine
Journal of Pediatrics
Environmental Research
Environmental Health Perspectives
Journal of the American Medical Association
Academic Pediatrics
American Journal of Public Health
Pediatrics
Public Health Reports
Epidemiologic Reviews

Grant Reviewer: NIEHS Environmental Health Sciences Review Committee (temporary reviewer) 9-04

EDITORIAL WORK

Editor: *Handbook of Pediatric Environmental Health*, Elk Grove Village, American Academy of Pediatrics, 1999

Editor: *Pediatric Environmental Health*, 2nd Edition, Elk Grove Village, American Academy of Pediatrics, 2003

Editor: *Pediatric Environmental Health*, 3rd Edition, Elk Grove Village, American Academy of Pediatrics, 2012

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EDITORIAL WORK (continued)

Co-Editor: *Textbook of Children's Environmental Health*. New York: Oxford University Press, 2014.

Associate Editor: Current Problems in Pediatrics and Adolescent Health Care, 2004-present

Associate Editor: BioMed Central Public Health, 2008 – 2012

Scientific Editor: International Journal of Circumpolar Health, 2006 – 2010

Editorial Review Board: Environmental Health Perspectives, 2004 – 2017
Book Review Editor: Ambulatory Pediatrics, 2004-2009

Contributing Section Editor, *AAP Grand Rounds*, 2005-2008

Co Editor, Environmental Health Perspectives Supplement, Indoor Mold and Children's Health, June 1999 (volume 107, Supplement 3), pages 461-517

Guest Editor, Pediatric Annals, June 2004

Guest Co Editor (with Philip Landrigan) of special issue of Ambulatory Pediatrics with focus on pediatric environmental health, volume 3, No. 1, January – February 2003

Guest Editor, International Journal of Circumpolar Health (Suppl 1); vol 66, 2007

SPECIAL HONORS AND AWARDS

Phi Beta Kappa, University of Minnesota, 1976

Named "MacPherson Scholar" in recognition of outstanding independent research at University of Minnesota, 1976

Finalist, Young Investigator Award of the Southern Society for Pediatric Research, 1985

National Merit Award nominee, Delta Omega Society, 1985

Don C. Mackel Memorial Award, CDC, "for the oral EIS presentation that best exemplifies the effective utilization of a combined epidemiologic and laboratory approach to an investigation", 1987

Sigma Xi, national honor society for research scientists, 1987

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SPECIAL HONORS AND AWARDS (continued)

Commendation Medal, U.S. Public Health Service, "for sustained superior work performance in international epidemiologic investigations of critical environmental health problems", 1988

Unit Commendation, U.S. Public Health Service, "for demonstrating the cause of a large tropical outbreak of paralytic shellfish poisoning", 1989

PHS Citation, U.S. Public Health Service, "for outstanding leadership and guidance given to junior officers in the Commissioned Officer Student Training and Extern Program (COSTEP)", 1990

Unit Commendation, U.S. Public Health Service, "for successfully initiating and completing a 3-year workplace smoking reduction program in Rhode Island", 1990

Unit Commendation, U.S. Public Health Service, "for assisting Barcelona health authorities in resolving a prolonged series of community asthma outbreaks caused by inhalation of soybean dust", 1990

Unit Commendation, U.S. Public Health Service, "for outstanding contributions toward the development of the Healthy People 2000 Health Promotion and Disease Prevention Objectives", 1991

Arthur S. Flemming Award, Scientific Category, presented by the Washington, D.C. Jaycees to ten outstanding individuals in the Federal Government, 1991

Outstanding Service Medal, U.S. Public Health Service, "in recognition of the development and implementation of a national program to reduce the respiratory health effects of air pollution", 1992

J.D. Lane Clinical Society Open Award, presented to Drs. Nathaniel Cobb and Ruth Etzel by the U.S. Public Health Service Professional Association "for the most significant contribution in original health research", 1992

Delta Omega, University of North Carolina at Chapel Hill, 1993

Commendation Medal, U.S. Public Health Service, "for extraordinary leadership, courage, and achievements in protecting the health of persons in the aftermath of the Gulf War", 1993

Outstanding Unit Citation, U.S. Public Health Service, "for exemplary service in the investigations and control of an outbreak of fatal respiratory illness in the southwestern United States caused by a newly identified hantavirus", 1993

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SPECIAL HONORS AND AWARDS (continued)

Secretary's Recognition Award, Department of Health and Human Services, "for exceptional performance in the investigation of unexplained deaths associated with an outbreak of acute illness of unknown etiology in the Four Corners area of the southwestern United States", 1994

Outstanding Unit Citation, U.S. Public Health Service, "for superior leadership, initiative, and creativity in evaluating the health effects of exposure to methyl tertiary butyl ether (MTBE) in gasoline", 1994

Outstanding Unit Citation, U.S. Public Health Service, "for outstanding contributions to the American Board of Preventive Medicine examination", 1994

Outstanding Unit Citation, U.S. Public Health Service, "for professional leadership and exemplary scientific skills in assessing the health concerns of Persian Gulf War veterans from Iowa", 1997

Clinical Society Open Award, presented by the U.S. Public Health Service Professional Association "for the most significant contribution in original health research", 1998

Outstanding Unit Citation, U.S. Public Health Service, "for outstanding teamwork and high level of productivity during the implementation of the new Food Safety Initiative", 1998

Crisis Response Service Award, U.S. Public Health Service, "for response to the flood disaster in Grand Forks, North Dakota", 1999

Secretary's Award for Distinguished Service, United States Department of Health and Human Services, "for outstanding teamwork resulting in the publication of Healthy People 2010", 2000

Secretary's Group Honor Award for Excellence, United States Department of Agriculture, "for quick, decisive response to a bioterrorism threat against four meat processing plants resulting in identification and destruction of 6,000,000 pounds of potentially contaminated meat", 2000

Unit Commendation, U.S. Public Health Service, "for significant and exceptional performance in developing the Healthy People 2010 Food Safety and Nutrition objectives to reduce food borne illness and chronic disease", 2001

Unit Commendation, U.S. Public Health Service, "for outstanding contributions to FDA and USDA/FSIS public health protection through the development of the *Listeria monocytogenes* risk assessment", 2001

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SPECIAL HONORS AND AWARDS (continued)

Unit Commendation, U.S. Public Health Service, "for sustained quality performance of duties during the renovation and expansion of the Anchorage Native Primary Care Clinic", 2003

Unit Commendation, U. S. Public Health Service, "for developing and implementing an innovative cardiovascular disease prevention program for Alaska Native women", 2004

2007 Children's Environmental Health Champion Award, U.S. Environmental Protection Agency, for outstanding leadership in protecting children from environmental health risks, 2007

Distinguished Service Medal, U.S. Public Health Service, "for continuous visionary leadership and outstanding accomplishments in achieving national public health objectives", 2008

Collegium Ramazzini, elected as Fellow, 2010

COMMITTEES (National or International)

Academic Pediatric Association (formerly Ambulatory Pediatric Association), Research Committee member 1987-present, Research Committee Executive Committee 2007-present, Communications Director, 2002-2005, Journal Committee, 2002-2005, Ethics Special Interest Group Co-chair 2008-2009, Global Health Task Force Chair 2011-14.

American Academy of Pediatrics, Committee on Environmental Health, CDC liaison member 1986-1992, sections voting member 1992-1995, Chair 1995-1999, EPA liaison 2015-present

American Academy of Pediatrics, Section on Epidemiology, Chairperson 1988-1992, Ex Officio 1993-1994, Nominations Committee Chair 1994-1995, Long Range Planning Committee member 1999-2011, Executive Committee member 2005 – 2011.

American Academy of Pediatrics, Provisional Section on Tobacco Control, Co-Chair 2012-2015

Environment and Child Health International Birth Cohort Group, Coordinator, 2011-2015.

Interagency Autism Coordinating Committee, Federal member, 2015-present

International Network on Children's Health Environment and Safety, 7th International Conference, Scientific Committee, Chair, 2013

International Pediatric Association, Committee on Environmental Health, Technical

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COMMITTEES (National or International – continued)

Advisor and Chair, 2003-2017

National Committee on Housing and Health, member, 2012-14

Children's Environmental Health Network, Science Advisory Committee, member, 2000-2015

Prenatal Programming and Toxicity III: Environmental Stressors in the Developmental Origins of Disease: Evidence and Mechanisms, Scientific Program Committee, member, 2011-12

Prenatal Programming and Toxicity IV: Environmental Stressors in the Developmental Origins of Disease: Evidence and Mechanisms, Organizing Committee member, 2013-14

Pediatric Academic Societies annual meeting, Program Committee, 2013-18

Society for Pediatric Epidemiologic Research, Executive Committee, 1988-1992

First Expert Panel on the Management of Asthma, National Heart, Lung, and Blood Institute, member 1989-1991

National Asthma Education and Prevention Program Coordinating Committee, member 1991-1996

United States Medical Licensing Examination Step 2, Preventive Medicine and Public Health Test Material Development Committee, 1992-1994

National Board of Medical Examiners Preventive Medicine and Public Health Test Committee, 1992-1995

Interim Scientific Advisory Panel, Mickey Leland National Urban Air Toxics Research Center, Houston, Texas, 1992-1994

American Board of Preventive Medicine, Trustee, 1992-2001, Vice Chair for Public Health/General Preventive Medicine, 1997-2001.

Sub-Board of Medical Toxicology, 1993-1994

Department of Defense Science Board Task Force on Gulf War Heath Effects, 1993-1994

Physicians Professional Advisory Committee, U.S. Public Health Service, 1994-1997

Society for Occupational and Environmental Health, Board of Councillors, 1995-1998

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COMMITTEES (National or International – continued)

International Society for Environmental Epidemiology, Board of Councillors 1995-1998, Chair, Ethics and Philosophy Committee 2006-2008

American Thoracic Society, Assembly on Occupational & Environmental Health, Long Range Planning Committee, 1997-1998

Roundtable on Environmental Health Sciences, Research, and Medicine, Institute of Medicine, National Academy of Sciences, 1998-2002

American Indian / Alaska Native Commissioned Officers Advisory Committee, member 2002-2005, Chair 2004

American College of Preventive Medicine, Vice Chair, Environmental Health Committee, 2002 – 2006, member, 2007-2012

American Academy of Pediatrics, Committee on Native American Child Health, member 2003-2009

American Society for Circumpolar Health, Treasurer, 2004- 2007

Expert Panel on the Reproductive and Developmental Toxicity of Genistein and Soy Formula, Center for the Evaluation of Risks to Human Reproduction, National Toxicology Program, U.S. Department of Health and Human Services, 2005-2006

Societies of Epidemiology, Joint Policy Committee, member 2006-2011

American Academy of Pediatrics, Julius B. Richmond Center of Excellence, Co-Chair, Scientific Advisory Board, 2006-2008, Chair, 2008-2010

Expert Panel on the Developmental Toxicity of Soy Infant Formula, Center for the Evaluation of Risks to Human Reproduction, National Toxicology Program, U.S. Department of Health and Human Services, 2009-2010

COMMITTEES (regional, state or local)

Board of Directors, Wisconsin State Laboratory of Hygiene, 2014-15

Survey of the Health of Wisconsin (SHOW) Advisory Board, 2013 – 15

Making the Connection 2013: Emerging Clinical Issues in Environmental Health, Planning Committee, member, 2012-13

American Academy of Pediatrics, Alaska Chapter, Secretary-Treasurer, 2001- 2005, Vice President, 2005-2008

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Assistant Director, CDC Preventive Medicine Residency Program, 1992-1997

CDC Epidemic Intelligence Service 40th Annual Conference, Scientific Program Committee, Chair, 1990-1991

COMMITTEES, University of Wisconsin – Milwaukee

Faculty Senate, member, 2013-15
Senate Subcommittee on the Evaluation of Administrators (2014-2015)

Division of Professions, Executive Committee, member, 2013-15

COMMITTEES (Joseph J. Zilber School of Public Health, UWM)

Search and Screen Committee for Epidemiology and Public Health Policy/Administration (Chair, 2013-14, co-Chair, 2012-13)

Graduate Programs Committee, Chair, 2013-14

Academic Planning Committee, member, 2012-13

Executive Committee, member, 2012-15

PUBLICATIONS (peer-reviewed)

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Michael Firestone, Ph.D.
Office: 202-564-2199; Cell: Ex. 6
Email: Firestone.Michael@epa.gov

Acting Deputy Director/Senior Scientist, Office of Children's Health Protection, Office of the Administrator, U.S. Environmental Protection Agency (EPA)
2000 to Present

Responsible for helping manage the Office of Children's Health Protection, as well as for advancing the state-of-the-science for children's environmental health (CEH) protection at EPA.

Starting in January 2017, a primary responsibility has been to be the EPA (and Managing) Co-Chair, along with HHS and HUD, of the Federal Lead Subcommittee. The purpose of this group is to develop a *Federal Lead Strategy to Eliminate or Reduce Childhood Lead Exposure and Associated Health Impacts*.

A long time focus has been (a) research planning and (b) development of risk assessment guidance and science policy related to children's environmental health. Examples of leadership activities include:
• Co-chair/project officer of a Federal-wide contract with the National Academy of Sciences to study the future of toxicity testing and co-chair of a follow-up workgroup under EPA's Science Policy Council to develop a Strategic Plan for the Future of Toxicity Testing and Risk Assessment at EPA;
• Chair of an EPA Technical Panel which developed "Guidance on Selecting Age Groups for Monitoring and Assessing Childhood Exposures to Environmental Contaminants"; and
• Co-Chair of an effort to develop an EPA Risk Assessment Portal (epa.gov/risk) .

In addition, participated in a number of agency-wide activities including:
• Risk Assessment Forum (Exposure Oversight Group).
• One of EPA's representatives on the Interagency Coordinating Committee of the National Children's Study (a large longitudinal cohort study investigating possible links between environmental exposures and health outcomes - note that this study has been discontinued by NIH).
• Science & Technology Policy Council's Scientific Support Group.

Responsible for ensuring consideration of children's health protection during the development of several important rules including pesticide worker protection, endangerment finding for the use of lead in general aviation gasoline, and development of safety limits for perchlorate in drinking water.

Also designed EPA's Protecting Children's Environmental Health web site in 2014.

Associate Office Director/Senior Scientist/Supervisory Chemist/Chemist, Office of Chemical Safety and Pollution Prevention, EPA
1984 to 1999

Served as the scientific expert for issues involving chemical fate & transport, exposure and risk assessment, and modeling. Scientific guidance development included: Chair of the EPA's Risk Assessment Forum technical panel which developed the agency's policy on Probabilistic Modeling; Co-author of a research strategy to support development of residential exposure testing and assessment guidelines; Subcommittee Chair on the Agency Task Force on Environmental Regulatory Modeling responsible for developing guidance for conducting peer review of modeling; Designated Federal Official responsible for managing the Lawn Care Pesticide Advisory

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Committee; Lead EPA coordinator working with the U.S. Food and Drug Administration and the U.S. Department of Agriculture during a 1997 incident involving dioxin contamination of poultry and catfish feed.

EDUCATION

Ph.D., Georgetown University, Washington, DC (December 1981) – Major: Chemistry; Area of emphasis: Biochemistry. Dissertation: Kinetics of Sickle Cell Hemoglobin Aggregation

B.S., University of Maryland, College Park, MD (May 1976) – Major: Biochemistry

PUBLICATIONS

U.S. Environmental Protection Agency's framework for human health risk assessment to inform decision making
Int. J. of Risk Assessment and Management, Volume 20, No.1/2/3, pp. 3 - 20 (2017)

Two Decades of Enhancing Children's Environmental Health Protection at the U.S. Environmental Protection Agency
Environ Health Perspectives, 124(12): A214-A218 (2016)

Identifying important life stages for monitoring and assessing risks from exposures to environmental contaminants: Results of a World Health Organization review
Regulatory Toxicology and Pharmacology, Volume 69, Issue 1, June 2014, 113–124 (2014)

Protecting children from environmental risks throughout each stage of their childhood
Journal of Exposure Science and Environmental Epidemiology, 20, 227–228 (2010)

The future of toxicity testing for environmental contaminants
Environmental Health Perspectives, 117(7):A283 (2009)

Potential New Approaches for Children's Inhalation Risk Assessment
Journal of Toxicological and Environmental Health – Part A.71 (3): 208-17 (2008)

Identifying Childhood Age Groups for Exposure Assessments and Monitoring
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Review and Analysis of Inhalation Dosimetry Methods for Application to Children's Risk Assessment
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International Journal of Hygiene and Environmental Health. 206(4-5): 395-400 (2003)

ED_002399_00044872-00002

Message

From: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Sent: 9/28/2018 4:50:03 PM
To: Maher, Karen [Maher.Karen@epa.gov]
Subject: Re: APPROVALS NEEDED IN PEOPLE PLUS

Tuesday. Sorry.

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

On Sep 28, 2018, at 12:49 PM, Maher, Karen <Maher.Karen@epa.gov> wrote:

Yes of course. Did admin leave start Monday or Tuesday at 4:30 pm?

Karen J. Maher
Acting Director
Office of Administrative and Executive Services
Office of the Administrator
U.S. Environmental Protection Agency
Office: (202)566-0362
Mobile: Ex. 6
Maher.karen@epa.gov

From: Wooden-Aguilar, Helena
Sent: Friday, September 28, 2018 12:49 PM
To: Maher, Karen <Maher.Karen@epa.gov>
Subject: Re: APPROVALS NEEDED IN PEOPLE PLUS

CAn we have someone enter Ruth's time? I will approve. Her Adm Leave starts effective Monday this week at 4:30 pm.

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

On Sep 28, 2018, at 12:08 PM, Hurt, Tiffany <Hurt.Tiffany@epa.gov> wrote:

<image001.gif>

Please APPROVE the following employees:

<image002.png>
<image004.png>

Tiffany Hurt
People Plus Coordinator/FCO
Office of Administration and Executive Services
Environmental Protection Agency
202-566-2963

Message

From: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Sent: 9/28/2018 2:56:40 PM
To: Hackel, Angela [Hackel.Angela@epa.gov]
CC: Grantham, Nancy [Grantham.Nancy@epa.gov]; Darwin, Veronica [darwin.veronica@epa.gov]
Subject: Re: Follow Up

Thanks for sharing.

Helena

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

On Sep 28, 2018, at 10:53 AM, Hackel, Angela <Hackel.Angela@epa.gov> wrote:

> Hi Everyone,
>
> As follow up to our discussions, these are the emails that we have been receiving as part of listserves that different folks are on.
>
> Thanks,
>
> Angela
>
> **From:** COEH [mailto:COEH@LISTSERV.AAP.ORG] **On Behalf Of** Spire, Paul
> **Sent:** Thursday, September 27, 2018 12:54 PM
> **To:** COEH@LISTSERV.AAP.ORG
> **Subject:** COEH ListServ - New York Times article: EPA Places the Head of Its Office of Children's Health on Leave
>
> Dear COEH,
>
> Sharing the following New York Times article:
>
> E.P.A. Places the Head of Its Office of Children's Health on Leave
> https://www.nytimes.com/2018/09/26/climate/epa-etzel-children-health-program.html
>
> From the article:
>
>> The American Academy of Pediatrics called for Dr. Etzel's reinstatement and for the office to continue its mission "unimpeded." Slowing or interrupting the office's work "sends a dangerous message that children's needs are not valued," said Mark Del Monte, interim executive vice president of the academy, in a statement.
>
> Best,

Paul

From: COEH [mailto:COEH@LISTSERV.AAP.ORG] **On Behalf Of** Spire, Paul
Sent: Tuesday, September 25, 2018 6:55 PM
To: COEH@LISTSERV.AAP.ORG
Subject: COEH ListServ - Office of Children's Health Protection

Hello,

By now you may have heard the terrible news that Ruth Etzel, MD, PhD, FAPP, Director of the US EPA Office of Children's Health Protection, has been placed on administrative leave from the EPA. AAP staff are gathering additional details of what this means for the Office of Children's Health Protection and developing a plan of action. We will keep you posted on next steps that we, with your help, will be taking. However, please know that you can and should MAKE NOISE on your own to make sure that everyone knows that pediatricians and families need the programs in our government dedicated to the health of children.

I will let you know more when we have additional information.

Thank you,

Jennifer

Angela Hackel, M.A.
Director, Program Implementation and Coordination Division
Office of Children's Health Protection | Office of the Administrator
U.S. Environmental Protection Agency
Room 1131 EPA West Building
Washington, DC 20460
Office: 202.566.2977

Message

From: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Sent: 9/26/2018 11:32:52 AM
To: Firestone, Michael [Firestone.Michael@epa.gov]
Subject: Re: E.P.A. Places the Head of Its Office of Children's Health on Leave - The New York Times

Yes at 9 am.

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

> On Sep 26, 2018, at 7:32 AM, Firestone, Michael <Firestone.Michael@epa.gov> wrote:
>
> Helena
>
> Just in from the NY Times.
>
> Deliberative Process / Ex. 5
>
> Michael P. Firestone, Ph.D., Acting Deputy Director
> Office of Children's Health Protection (MC 1107T)
> U.S. Environmental Protection Agency
> Office: 202-564-2199
> Cell: Ex. 6
>
> -----Original Message-----
> From: Miller, Gregory
> Sent: Wednesday, September 26, 2018 7:27 AM
> To: Firestone, Michael <Firestone.Michael@epa.gov>
> Subject: E.P.A. Places the Head of Its Office of Children's Health on Leave - The New York Times
>
> Have you seen this???
>
>
>
>
> https://www.nytimes.com/2018/09/26/climate/epa-etzel-children-health-program.html
>
>
> E.P.A. Places the Head of Its Office of Children's Health on Leave Image The Environmental Protection Agency's headquarters in Washington in July. On Tuesday, the E.P.A. placed Dr. Ruth Etzel, the head of its Office of Children's Health Protection, on administrative leave.CreditCreditTing Shen/Reuters
>
> By Coral Davenport and Roni Caryn Rabin
>
> Sept. 26, 2018
>
> WASHINGTON — The Environmental Protection Agency on Tuesday placed the head of its Office of Children's Health Protection on administrative leave, in an unusual move that several observers said appeared to reflect an effort to minimize the role of the office.
>
> Dr. Ruth Etzel, a pediatrician and epidemiologist who has been a leader in children's environmental health for 30 years, joined the E.P.A. in 2015, after having served as a senior officer for environmental health research at the World Health Organization. She was placed on administrative leave late Tuesday and asked to hand over her badge, keys and cellphone, according to an E.P.A. official familiar with the decision who was not authorized to discuss the move and asked not to be identified.
>
> An E.P.A. spokesman, John Konkus, confirmed that Dr. Etzel had been placed on administrative leave and declined to give the reason.
>
> The E.P.A.'s Office of Children's Health Protection, created by President Bill Clinton in 1997, is tasked with seeing that agency regulations and programs take into account the particular vulnerabilities of children, babies and fetuses. Children are more vulnerable than adults to pollution and other potential exposure because their bodies are still developing and because they eat, drink and breathe more

in proportion to their size. In addition, some of their behaviors, such as crawling or putting things in their mouths, potentially expose them to chemicals or toxins.
>
> Several people within the E.P.A. or who work closely with the agency said that Dr. Etzel's dismissal is one of several recent developments that have slowed the work of the children's health office. One person cited a proposal outlining a strategy for reducing childhood lead exposure, which had been in development for over a year with the involvement of 17 federal agencies, and which has been stalled since early July.
>
> The Office of Children's Health Protection is technically housed in the office of the E.P.A. administrator, Andrew Wheeler, who has served as the agency's acting administrator since July.
>
> Under Mr. Wheeler and his predecessor, Scott Pruitt, who left the position earlier this year amid investigations into his oversight of the agency, the E.P.A. has aggressively pursued an agenda of rolling back environmental restrictions on numerous pollutants, arguing that the regulations are overly strict or that they burden industry.
>
> "This seems like a sneaky way for the E.P.A. to get rid of this program and not be upfront about it," said Dr. Mona Hanna-Attisha, the director of the pediatric residency program at Hurley Medical Center, a teaching hospital affiliated with Michigan State University, whose analysis of blood tests in Flint, Mich. — a community that became caught up in a lead crisis affecting its drinking water — played a key role in showing that residents were being poisoned by the lead. Dr. Hanna-Atisha called Dr. Etzel "an international leader in children's health."
>
> The decision to put the department head on administrative leave "is highly unusual," said Joseph Goffman, a former senior counsel for the E.P.A. during the Obama administration.
>
> The office Dr. Etzel oversees is small, with a budget of about $2 million and 15 full-time employees in Washington and 10 regional children's health coordinators, some of whom have other responsibilities in addition to children's health.
>
> Mr. Konkus, the E.P.A. spokesman, said the Trump administration had no intention to diminish or eliminate an office designed to protect children's health. "Children's health is and has always been a top priority for the Trump administration and the E.P.A. in particular is focused on reducing lead exposure in schools, providing funds for a cleaner school bus fleet and cleaning up toxic sites so that children have safe environments to learn and play," he said in an emailed statement.
>
> For more news on climate and the environment, follow @NYTClimate on Twitter.
>
> Coral Davenport covers energy and environmental policy, with a focus on climate change, from the Washington bureau. She joined The Times in 2013 and previously worked at Congressional Quarterly, Politico and National Journal. @CoralMDavenport • Facebook

Message

From: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Sent: 9/26/2018 12:45:55 AM
To: Firestone, Michael [Firestone.Michael@epa.gov]
Subject: Re: Dr. Ruth Etzel, OCHP Director

Thanks. Press is asking too. We will respond.

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

On Sep 25, 2018, at 8:35 PM, Firestone, Michael <Firestone.Michael@epa.gov> wrote:

FYI

Michael P. Firestone, Ph.D., Acting Deputy Director
Office of Children's Health Protection (MC 1107T)
U.S. Environmental Protection Agency
Office: 202-564-2199
Cell: Ex. 6

Begin forwarded message:

From: "Berger, Martha" <Berger.Martha@epa.gov>
Date: September 25, 2018 at 8:00:15 PM EDT
To: "Firestone, Michael" <Firestone.Michael@epa.gov>
Subject: Fwd: Dr. Ruth Etzel, OCHP Director

FYI

Martha

Martha Berger
Office of Children's Health Protection
US Environmental Protection Agency
202/230-4784

Begin forwarded message:

From: "Morrissey, Barbara (DOH)" <Barbara.Morrissey@DOH.WA.GOV>
Date: September 25, 2018 at 7:52:38 PM EDT
To: Caroline Cox <caroline@ceh.org>, Deanna Scher <deanna.scher@state.mn.us>, Ellen Braff-Guajardo <ebraff-guajardo@sierrahealth.org>, "Forman, Joel" <joel.forman@mssm.edu>, "Huerta-Montanez, Gredia" <grediamd@gmail.com>, "James R.

Roberts" <robertsj@musc.edu>, Jose Cordero <jcordero@uga.edu>, Julie Froelicher <Froelicher.jm@pg.com>, Lori Byron <lori.byron@gmail.com>, "Lowry, Jennifer" <jlowry@cmh.edu>, Maeve Howett <mhowett@umass.edu>, "Mark Miller" <ucsfpehsumiller@gmail.com>, Maureen Little <mlittle@health.nyc.gov>, "Morrissey, Barbara (DOH)" <Barbara.Morrissey@DOH.WA.GOV>, Olga Naidenko <olga@ewg.org>, "Ornella, Greg" <gregory.a.ornella@sherwin.com>, "Pinar Kodaman" <pinar.kodaman@yale.edu>, Rebecca Bratspies <bratspies@mail.law.cuny.edu>, Rubin Patterson <rubin.patterson@howard.edu>, Steve Owens <stephenaowens@gmail.com>, Tom Neltner <tneltner@edf.org>
Cc: "Hackel, Angela" <Hackel.Angela@epa.gov>, "Berger, Martha (Berger.Martha@epa.gov)" <Berger.Martha@epa.gov>, "Foos, Brenda (Foos.Brenda@epa.gov)" <Foos.Brenda@epa.gov>
Subject: Dr. Ruth Etzel, OCHP Director

Dear CHPAC,

I just learned that Dr. Ruth Etzel, OCHP director, was removed from her official duties at EPA this afternoon and had to turn in her badge, keys, and cell phone. She was told it was not a disciplinary action and was placed on administrative leave. I have not spoken to Ruth directly or staff in the OCHP office nor do I know whether there are other actions underway to reduce or eliminate the Office of Children's Health Protection at EPA.

Ruth has been a strong national leader and voice for children's environmental health for her entire career. The book she edits for AAP on Pediatric Environmental Health has been the "go-to" guide on children's environmental health for physicians, public health, and policy-makers for the past 2 decades. As the OCHP director, she has been tapping her great expertise and passion to ensure that children are protected in the agency's environmental regulations and properly included in the agency's research and outreach programs. She has been a critical leader in development of the national lead strategy. The OCHP office also helps develop and track indicators of children's environmental exposures and is critical in supporting the NIEHS/EPA Children's Environmental Health and Disease Prevention Research Centers and the PEHSUs.

If you receive calls from the media specifically for a CHPAC perspective, please forward them to me. I hope to be able to speak out strongly in defense of Ruth and the OCHP office as the CHPAC chair. I hope you all have opportunities to express your strong support for this small but mighty office at EPA. They have accomplished much in the last 20 years but have important work ahead. If you have talking points you would like me to consider when representing the CHPAC, please forward them to me.

I foresee that this development may affect the planned CHPAC meeting in October. Please be patient while we wait for the office to digest the news and make decisions.

Barbara Morrissey, Toxicologist
Office of Environmental Public Health Sciences
Washington State Department of Health
barbara.morrissey@doh.wa.gov
360-236-3368 | www.doh.wa.gov

After work I can be reached at Ex. 6

Message

From: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Sent: 9/26/2018 12:39:33 AM
To: Grantham, Nancy [Grantham.Nancy@epa.gov]; Darwin, Veronica [darwin.veronica@epa.gov]
Subject: Fwd: Dr. Ruth Etzel, OCHP Director

FYI.

Nancy - We need to get that statement out and share with this group.

Thanks,

Helena

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

Begin forwarded message:

> **From:** "Firestone, Michael" <Firestone.Michael@epa.gov>
> **Date:** September 25, 2018 at 8:35:26 PM EDT
> **To:** "Wooden-Aguilar, Helena" <Wooden-Aguilar.Helena@epa.gov>
> **Subject: Fwd: Dr. Ruth Etzel, OCHP Director**
>
> FYI
>
> Michael P. Firestone, Ph.D., Acting Deputy Director
> Office of Children's Health Protection (MC 1107T)
> U.S. Environmental Protection Agency
> Office: 202-564-2199
> Cell: Ex. 6
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> > **From:** "Berger, Martha" <Berger.Martha@epa.gov>
> > **Date:** September 25, 2018 at 8:00:15 PM EDT
> > **To:** "Firestone, Michael" <Firestone.Michael@epa.gov>
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> >
> > FYI
> >
> > Martha
> >
> > Martha Berger
> > Office of Children's Health Protection
> > US Environmental Protection Agency

202/230-4784

Begin forwarded message:

From: "Morrissey, Barbara (DOH)" <Barbara.Morrissey@DOH.WA.GOV>
Date: September 25, 2018 at 7:52:38 PM EDT
To: Caroline Cox <caroline@ceh.org>, Deanna Scher <deanna.scher@state.mn.us>, Ellen Braff-Guajardo <ebraff-guajardo@sierrahealth.org>, "Forman, Joel" <joel.forman@mssm.edu>, "Huerta-Montanez, Gredia" <grediamd@gmail.com>, "James R. Roberts" <robertsj@musc.edu>, Jose Cordero <jcordero@uga.edu>, Julie Froelicher <Froelicher.jm@pg.com>, Lori Byron <lori.byron@gmail.com>, "Lowry, Jennifer" <jlowry@cmh.edu>, Maeve Howett <mhowett@umass.edu>, "Mark Miller" <ucsfpehsumiller@gmail.com>, Maureen Little <mlittle@health.nyc.gov>, "Morrissey, Barbara (DOH)" <Barbara.Morrissey@DOH.WA.GOV>, Olga Naidenko <olga@ewg.org>, "Ornella, Greg" <gregory.a.ornella@sherwin.com>, "Pinar Kodaman" <pinar.kodaman@yale.edu>, Rebecca Bratspies <bratspies@mail.law.cuny.edu>, Rubin Patterson <rubin.patterson@howard.edu>, Steve Owens <stephenaowens@gmail.com>, Tom Neltner <tneltner@edf.org>
Cc: "Hackel, Angela" <Hackel.Angela@epa.gov>, "Berger, Martha (Berger.Martha@epa.gov)" <Berger.Martha@epa.gov>, "Foos, Brenda (Foos.Brenda@epa.gov)" <Foos.Brenda@epa.gov>
Subject: Dr. Ruth Etzel, OCHP Director

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Ruth has been a strong national leader and voice for children's environmental health for her entire career. The book she edits for AAP on Pediatric Environmental Health has been the "go-to" guide on children's environmental health for physicians, public health, and policy-makers for the past 2 decades. As the OCHP director, she has been tapping her great expertise and passion to ensure that children are protected in the agency's environmental regulations and properly included in the agency's research and outreach programs. She has been a critical leader in development of the national lead strategy. The OCHP office also helps develop and track indicators of children's environmental exposures and is critical in supporting the NIEHS/EPA Children's Environmental Health and Disease Prevention Research Centers and the PEHSUs.

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I foresee that this development may affect the planned CHPAC meeting in October. Please be patient while we wait for the office to digest the news and make decisions.

Barbara Morrissey, Toxicologist
Office of Environmental Public Health Sciences
Washington State Department of Health
barbara.morrissey@doh.wa.gov
360-236-3368 | www.doh.wa.gov

After work I can be reached at Ex. 6

Message

From: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Sent: 9/28/2018 1:18:47 AM
To: Schroeder, Kathleen [Schroeder.Kathleen@epa.gov]
CC: Foos, Brenda [Foos.Brenda@epa.gov]
Subject: Re: Revised NY Times article on Office of Children's Health Protection

Thank you for sharing. Helena

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

On Sep 27, 2018, at 12:05 PM, Schroeder, Kathleen <Schroeder.Kathleen@epa.gov> wrote:

Hello, Helena;

I am a member of the OCHP staff. I wanted to send this link to you – it is the revised New York Times article on the administrative leave of Dr. Etzel.

https://www.nytimes.com/2018/09/26/climate/epa-etzel-children-health-program.html

Thank you,

Kathy Schroeder

Kathleen Schroeder, MD, MSI
Senior Environmental Employment Program
SEE Enrollee
US EPA
Office of Children's Health Protection

schroeder.kathleen@epa.gov
202-566-2279

Message

From: Hackel, Angela [Hackel.Angela@epa.gov]
Sent: 9/27/2018 6:47:45 PM
To: Darwin, Veronica [darwin.veronica@epa.gov]; Grantham, Nancy [Grantham.Nancy@epa.gov]; Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Subject: FW: trying to figure out what is going on....

FYI. I wanted to flag this for you. Please note, that this was sent before the Acting Deputy Administrator sent the email out to CHPAC.

Thanks,

Angela

From: Firestone, Michael
Sent: Thursday, September 27, 2018 12:04 PM
To: Hackel, Angela <Hackel.Angela@epa.gov>
Subject: Fwd: trying to figure out what is going on....

Michael P. Firestone, Ph.D., Acting Deputy Director
Office of Children's Health Protection (MC 1107T)
U.S. Environmental Protection Agency
Office: 202-564-2199
Cell: Ex. 6

Begin forwarded message:

> **From:** "Lowry, Jennifer" <jlowry@cmh.edu>
> **Date:** September 27, 2018 at 11:53:42 AM EDT
> **To:** "'Firestone.Michael@epa.gov'" <Firestone.Michael@epa.gov>
> **Subject: trying to figure out what is going on....**
>
> Michael,
>
> As you know, I have been involved with OCHP for the last 8 years and have been through many changes with you. I know that your road has been crazier, but I am concerned about what is happening at EPA and OCHP. I do not doubt your skills to be acting director, but I am concerned about what Ruth's administrative leave actually means.
>
> As you also may know, I am the Chair to the Council on Environmental Health for the American Academy of Pediatrics, a PEHSU director and on CHPAC. In none of those capacities, have we heard from EPA about the status of OCHP. That is our main concern. Can you share anything with me about what is happening and what direction OCHP is heading?
>
> Thanks,
>
> Jennifer
>
> Jennifer A. Lowry, MD | Pediatrician, Toxicologist and Pharmacologist

Director / Division of Clinical Pharmacology, Toxicology and Therapeutic Innovations
Director/ Mid-America Pediatric Environmental Health Specialty Unit
Children's Mercy Kansas City
Professor of Pediatrics
UMKC School of Medicine
P: (816) 234-3059 | F: (816) 302-9943
E: jlowry@cmh.edu | W: childrensmercy.org
2401 Gillham Road | Kansas City, MO 64108

Children's Mercy
KANSAS CITY

Electronic mail from Children's Mercy Kansas City. This communication is intended only for the use of the addressee. It may contain information that is privileged or confidential under applicable law. If you are not the intended recipient or the agent of the recipient, you are hereby notified that any dissemination, copy or disclosure of this communication is strictly prohibited. If you have received this communication in error, please immediately forward the message to the Children's Mercy Information Security Officer via return electronic mail at informationsecurityofficer @cmh.edu and expunge this communication without making any copies. Thank you for your cooperation.

Message

From: Wooden-Aguilar, Helena [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=991AB84F64BE4B6B9DD10A68C81887B0-HAWODD]
Sent: 10/16/2018 2:39:16 PM
To: Richardson, RobinH [Richardson.RobinH@epa.gov]; Grantham, Nancy [Grantham.Nancy@epa.gov]
Subject: FW: OCHP Response to Senators
Attachments: Peters.pdf; Rep. Meng Letter to Admin. Wheeler re OCHP 10-5-18.pdf

Robin – can your staff use the document that we drafted for the previous response and craft something? Or are they expecting us to draft? Just wanted to ask so I can engage folks to assist me.

Helena

From: Williams, Thea
Sent: Tuesday, October 16, 2018 9:57 AM
To: Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>
Cc: Grantham, Nancy <Grantham.Nancy@epa.gov>; Moody, Christina <Moody.Christina@epa.gov>; Richardson, RobinH <Richardson.RobinH@epa.gov>
Subject: RE: OCHP Response to Senators

Hi Helena:

Attached are the other 2 incoming correspondences referenced below regarding Office of Children's Health; specifically, issues concerning Dr. Etzel. Please advise on agency's response.

Thanks, Thea

Thea Williams
Office of Congressional Relations
US Environmental Protection Agency
202-564-2064

From: Richardson, RobinH
Sent: Monday, October 15, 2018 5:18 PM
To: Williams, Thea <Williams.Thea@epa.gov>
Cc: Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>; Grantham, Nancy <Grantham.Nancy@epa.gov>; Moody, Christina <Moody.Christina@epa.gov>
Subject: OCHP Response to Senators

Hi Thea –

Thank you so much for pulling the package together tomorrow for Troy's signature. Attached are the incoming and the response. The response needs to be formatted and Troy's signature block added. I've put the enclosure (5 reports, one for each Senator) on your chair along with a print out of the response. Helena and Nancy are cc:d in case additional coordination is needed. Also you mentioned there were two other incoming letters that address similar OCHP issues that this response may help inform. Please reach out to Helena and Nancy as needed on those two responses as well.

Thank you again and don't hesitate to call/email if you have questions or need anything more.

Best, Robin

Robin H Richardson
Principal Deputy Associate Administrator
Office of Congressional and Intergovernmental Relations
U.S. Environmental Protection Agency
202-564-3358 (desk)
Ex. 6 (cell)
richardson.robinh@epa.gov

Congress of the United States

Washington, DC 20510

October 11, 2018

Andrew Wheeler
Acting Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Acting Administrator Wheeler:

We are writing to express serious concerns and request further information about the U.S. Environmental Protection Agency (EPA)'s abrupt decision to place Dr. Ruth Etzel on administrative leave from the position of Director of the Office of Children's Health Protection. The EPA has not provided sufficient justification for the dismissal of a senior non-political professional with decades of expertise in protecting children from unsafe exposure to toxins and chemicals, nor has the agency identified a new candidate willing to perform the duties of this office. The Office of Children's Health Protection is critical in an era where toxins in our environment, including lead, mercury, and per/polyfluoroalkyl substances (PFAS), introduce developmental and health barriers to thousands of American youth.

Our home state of Michigan experienced one of the nation's largest man-made environmental disasters with lead-contaminated drinking water in Flint. We heard from thousands of constituents, who were forced to use bottled water to drink, cook and bathe. To this day, many still do not trust the water coming from their faucets. But the most heartbreaking stories were from parents, whose children are facing significant physical, cognitive and developmental challenges from lead exposure. Children are the most vulnerable to the ill effects of lead exposure, and they will experience the longest term impact. Going forward, we need to ensure we have a strong national infrastructure to prevent a scenario like the Flint water crisis from ever happening again, and the Office of Children's Health Protection is key to this strategy.

The Flint water crisis is just one example of how childhood exposure to toxins can undermine the prosperity of an entire community. Children in lower income and minority communities continue to bear most of the health burden from mercury-emitting coal-fired plants. Each day, we also learn more about the chronic health conditions that develop as a result of widespread exposure to PFAS. Further research is needed on the health impacts caused by this class of over 4,700 industrial chemicals, but we already know certain PFAS increase the risk of some cancers, harm the immune and endocrine systems, and negatively affect the growth, learning, and behavior of infants and children.

Based on publicly available facts, Dr. Etzel is well-qualified for the position of Director at the Office of Children's Health Protection. She is a world-renowned pediatrician and epidemiologist with over three decades of experience aligned with the office's mission. Prior to becoming the office's Director in 2015, she served as a senior officer for environmental health research at the World Health Organization and received numerous national awards for her work. Dr. Mona Hannah-Attisha, a pediatrician who played a

central role in elevating the impact of the Flint water crisis on children, describes Dr. Etzel as "an international leader in children's health."

The EPA has stated that children's health remains a top priority for the Administration at the same time it has dismissed, without apparent reason, the head of the office that oversees children's health. As such, we request the EPA respond to the following requests for information within 30 days:

- What is EPA leadership's reasoning and justification for Dr. Etzel's removal?
- Which EPA officials were consulted and ultimately made the decision to place Dr. Etzel on leave?
- How was Dr. Etzel notified of the decision to place her on leave?
- How will this personnel decision impact the EPA's ability to perform its mission of reducing environmental risk factors for children's health?
- How many full-time staff have been budgeted within the Office of Children's Health Protection for Fiscal Year 2017, 2018, and 2019?
- Who is performing the duties of Director of the Office of Children's Health Protection currently?
- When does EPA intend to hire a new Director for the Office of Children's Health Protection?
- How long does EPA intend to provide administrative leave and other employment benefits for Dr. Etzel?

It is imperative that the EPA takes every possible step to avoid childhood exposure to unsafe toxins like lead and PFAS and ensure all children are able to grow up happy and healthy. As the federal government works to reduce the unnecessary incidence of asthma, developmental delays, and cancers, the EPA needs to keep a strong focus on the youngest Americans, who are most vulnerable to the negative impacts of environmental toxins. We request more information about a sudden personnel decision that suggests the EPA is not following through with its stated commitment to prioritizing children's health.

Sincerely,

Gary C. Peters
United States Senator

Debbie Stabenow
United States Senator

Daniel Kildee
Member of Congress

COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON COMMERCE, JUSTICE, SCIENCE, AND RELATED AGENCIES
SUBCOMMITTEE ON STATE, FOREIGN OPERATIONS, AND RELATED PROGRAMS

http://www.meng.house.gov
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CONGRESSIONAL ASIAN PACIFIC AMERICAN CAUCUS
EXECUTIVE BOARD MEMBER
CHAIR
TASK FORCE ON APPROPRIATIONS

SENIOR AND REGIONAL WHIP

CONGRESSIONAL KIDS SAFETY CAUCUS
CO-CHAIR

Grace Meng
Congress of the United States
Sixth District, New York

October 5, 2018

Mr. Andrew Wheeler
Acting Administrator
Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Dear Administrator Wheeler:

As Co-Chair of the Bipartisan Congressional Kids' Safety Caucus, I write to echo the concerns expressed by Dr. Phillip J. Landrigan and Dr. Lynn R. Goldman in Wednesday's *New York Times* article "A Bad Move That Could End Up Exposing Kids to Chemicals." They cautioned: "we worry that [placing Dr. Ruth Etzel, the Director of the Office of Children's Health Protection (OCHP) on administrative leave] signals one of two actions: closing the office, which has argued for tougher regulations on industrial pollutants, or minimizing its role in rule-making." It is my sincere hope that neither of these results is a desired end of the Environmental Protection Agency (EPA).

As you know, the manner in which prolonged exposure to chemicals impacts children differs greatly from the manner in which it impacts adults. Exposure to even low levels of toxic chemicals during pregnancy and the first years of life can damage cognitive function and developing organs, leading to an increased risk of learning disabilities, A.D.H.D., dyslexia, autism, and breathing difficulties. For more than two decades, OCHP has fought to protect American children from these outcomes and they should be allowed to continue to do so.

As the mother of two young children, I thank you for your attention to this matter and await your response. I look forward to working with you to protect all of America's children and urge you to contact me anytime with any questions or concerns you may have. Your staff may contact Rachana Shah of my staff at Rachana.Shah@mail.house.gov or (202) 225-2601.

Sincerely,

Grace Meng
Member of Congress

118-35 QUEENS BLVD, 17TH FL
FOREST HILLS, NY 11375
(718) 358-MENG (6364)

1317 LONGWORTH
WASHINGTON, DC 20515
(202) 225-2601

40-13 159TH STREET
FLUSHING, NY 11358
(718) 358-MENG (6364)

Please sign up for Rep. Meng's enewsletter at https://meng.house.gov/contact/newsletter

Message

From: Wooden-Aguilar, Helena [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=991AB84F64BE4B6B9DD10A68C81887B0-HAWODD]
Sent: 9/26/2018 12:20:54 PM
To: Wulffen, Rebecca [Wulffen.Rebecca@epa.gov]; Coomber, Robert [coomber.robert@epa.gov]; Patterson, Nicole [Patterson.Nicole@epa.gov]; Meighan, Alexandra [Meighan.Alexandra@epa.gov]
BCC: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
Subject: FYI.

https://www.nytimes.com/2018/09/26/climate/epa-etzel-children-health-program.html

E.P.A. Places the Head of Its Office of Children's Health on Leave

Sept. 26, 2018

The Environmental Protection Agency's headquarters in Washington in July. On Tuesday, the E.P.A. placed Dr. Ruth Etzel, the head of its Office of Children's Health Protection, on administrative leave.Ting Shen/Reuters

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WASHINGTON — The Environmental Protection Agency on Tuesday placed the head of its Office of Children's Health Protection on administrative leave, in an unusual move that several observers said appeared to reflect an effort to minimize the role of the office.

Dr. Ruth Etzel, a pediatrician and epidemiologist who has been a leader in children's environmental health for 30 years, joined the E.P.A. in 2015, after having served as a senior officer for environmental health research at the World Health Organization. She was placed on administrative leave late Tuesday and asked to hand over her badge, keys and cellphone, according to an E.P.A. official familiar with the decision who was not authorized to discuss the move and asked not to be identified.

An E.P.A. spokesman, John Konkus, confirmed that Dr. Etzel had been placed on administrative leave and declined to give the reason.

The E.P.A.'s Office of Children's Health Protection, created by President Bill Clinton in 1997, is tasked with seeing that agency regulations and programs take into account the particular vulnerabilities of children, babies and fetuses. Children are more vulnerable than adults to pollution and other potential exposure because their bodies are still developing and because they eat, drink and breathe more in proportion to their size. In addition, some of their behaviors, such as crawling or putting things in their mouths, potentially expose them to chemicals or toxins.

Several people within the E.P.A. or who work closely with the agency said that Dr. Etzel's dismissal is one of several recent developments that have slowed the work of the children's health office. One person cited a proposal outlining a strategy for reducing childhood lead exposure, which had been in development for over a year with the involvement of 17 federal agencies, and which has been stalled since early July.

The Office of Children's Health Protection is technically housed in the office of the E.P.A. administrator, Andrew Wheeler, who has served as the agency's acting administrator since July.

Under Mr. Wheeler and his predecessor, Scott Pruitt, who left the position earlier this year amid investigations into his oversight of the agency, the E.P.A. has aggressively pursued an agenda of rolling back environmental restrictions on numerous pollutants, arguing that the regulations are overly strict or that they burden industry.

"This seems like a sneaky way for the E.P.A. to get rid of this program and not be upfront about it," said Dr. Mona Hanna-Attisha, the director of the pediatric residency program at Hurley Medical Center, a teaching hospital affiliated with Michigan State University, whose analysis of blood tests in Flint, Mich. — a community that became caught up in a lead crisis

affecting its drinking water — played a key role in showing that residents were being poisoned by the lead. Dr. Hanna-Atisha called Dr. Etzel "an international leader in children's health."

The decision to put the department head on administrative leave "is highly unusual," said Joseph Goffman, a former senior counsel for the E.P.A. during the Obama administration.

The office Dr. Etzel oversees is small, with a budget of about $2 million and 15 full-time employees in Washington and 10 regional children's health coordinators, some of whom have other responsibilities in addition to children's health.

Mr. Konkus, the E.P.A. spokesman, said the Trump administration had no intention to diminish or eliminate an office designed to protect children's health. "Children's health is and has always been a top priority for the Trump administration and the E.P.A. in particular is focused on reducing lead exposure in schools, providing funds for a cleaner school bus fleet and cleaning up toxic sites so that children have safe environments to learn and play," he said in an emailed statement.

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Coral Davenport covers energy and environmental policy, with a focus on climate change, from the Washington bureau. She joined The Times in 2013 and previously worked at Congressional Quarterly, Politico and National Journal. @CoralMDavenport • Facebook

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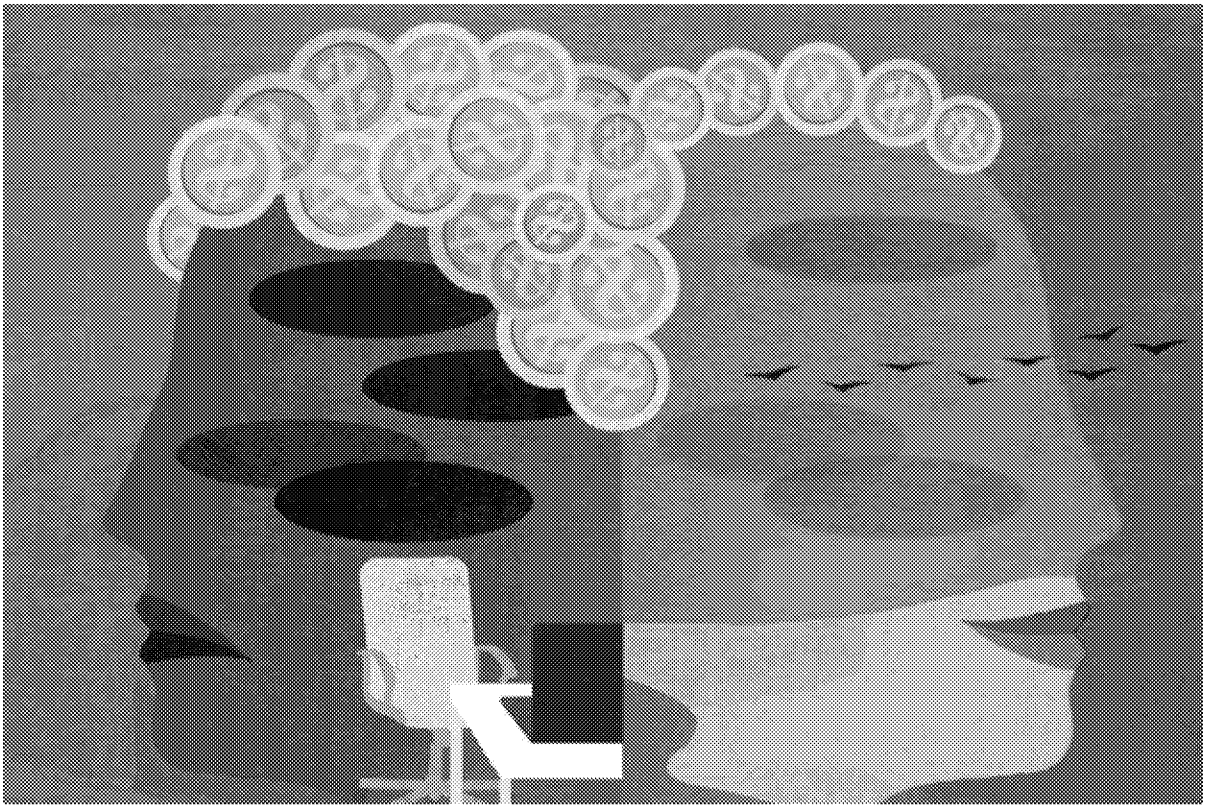

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Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
Ex. 6 (Cell)
wooden-aguilar.helena@epa.gov

From:	Wooden-Aguilar, Helena
To:	Etzel, Ruth; Firestone, Michael
Cc:	Hughes, Hayley; Grantham, Nancy
Subject:	Update - Federal Lead Strategy Consolidated Comments and Next STeps
Date:	Monday, August 27, 2018 4:25:00 PM
Attachments:	20180827 FLS Comment Matrix.xlsx 7-16-2018 FLS MS_HH.docx PTF Draft Federal Lead Strategy LRM.pdf
Importance:	High

Ruth –The last time we chatted I recommended that we consider a contractor to help us go through all of the comments received (HUD, OMB, Program Offices, and others) and consolidate into one document. The purpose from my perspective was to provide decision makers a visual so they could see what comments we accepted, how we adjudicated comments overall, and what next steps were for comments we rejected.

Well I have great news! Hayley offered to work through your original comment documents, OMB's comment, HUD's comments, and the EPA Program offices. (TY Hayley!) The comment matrix, which is attached to this message, shows the Page # and Line # from the April 30, 2018, FLS version as well as the page/line #s from the OMB track changes document for the OMB comments to the left of the comment. To the right of the comment, there are columns for the "response" and the new page/line # in the July 16, 2018, version with a response justification column.

Additionally, I would like to mention that your office and Steering Committee members did a great job managing a wide range of comments. However, there are a few areas that require additional input or clarification and/or justification and are highlighted in yellow in the new comment matrix. Please have your staff review and provide to me, with a cc to Hayley/Nancy, by Thursday COB. After we receive this document I will schedule a meeting with you, Michael, Hayley, Nancy, and others so that we can map out next steps. I would like to have this comment document ready for the September 10th meeting we have with the Acting DA. You should have received an invitation.

Lastly, I know you have drafted the 6 page document and I am still reviewing that document.

Please let me know if you have further questions and thank you and your team for your patience throughout this process.

Helena

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
Office of the Administrator
US Environmental Protection Agency
202-564-0792 (office)
(b) (6) (mobile)
wooden-aguilar.helena@epa.gov

From: Wooden-Aguilar, Helena
To: Etzel, Ruth
Cc: Firestone, Michael
Subject: Re: Briefing the Acting Deputy Administrator
Date: Wednesday, September 5, 2018 4:52:26 PM

Ruth - thanks for your message. I am in between meetings but will respond in detail this pm. The bottom line is that From my perspective we are not ready to brief the acting adm. We must first ensure that the agency's leadership and the acting Deputy Adm are fully briefed. This includes not only the what the strategy says and the task force action items, but the federal wide comments (identifying each comment and how we adjudicated them). As I shared with Michael and his is very important to me and a priority. In my opinion Leadership needs to know exactly what we did and why we did it. It's a federal document but EPA has a responsibility to the federal family and to our own programs to ensure transparent and clear adjudication of their thoughts and questions.

Next week we meet with the Deputy Adm and we will have an opportunity to know more regarding timeline.

I will be scheduling a meeting on Friday of this week to walk through things.

Helena

Helena Wooden-Aguilar
Acting Deputy Chief of Staff
U.S. Environmental Protection Agency
202-564-0792 (Work)
(b) (6) (Cell)
wooden-aguilar.helena@epa.gov

On Sep 5, 2018, at 1:42 PM, Etzel, Ruth <Etzel.Ruth@epa.gov> wrote:

> Hi Helena,
>
> I have not yet heard from you regarding your thoughts on the timeline I proposed (see message below). I think it would be best to have an agreed-upon timeline for the meeting with the Acting Deputy Administrator. What feedback do you have for me on our proposed timeline (realizing, of course, that in the interim the August 31 proposed date to send to OMB has passed)? Also, do you have any feedback on the draft slides that Michael Firestone prepared?
> Please let me know.
>
> Best,
>
> Ruth

From: Etzel, Ruth
Sent: Thursday, August 23, 2018 8:18 AM
To: Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>
Subject: Request for an opportunity to brief the Acting Deputy Administrator

Hi Helena,

As you may recall, I mentioned that I thought we should have a shorter version of the Draft Federal Strategy that would be easier for decisionmakers to digest. I have attached it here for your review. We would be pleased to have an opportunity to do a briefing for the Acting Deputy Administrator as soon as it can be arranged. Draft Briefing slides are attached for your review. Michael Firestone has completed the spreadsheet indicating how each of the comments received during the OMB review was handled. It is attached for your review as well.

Although we are behind schedule on the proposed re-submission to OMB, we propose the following new timeline for your consideration:

Finalizing the Federal Strategy to Reduce Childhood Lead Exposures and Associated Health Impacts

- Aug 31: revised strategy to OMB for "unofficial" review
- Sept 7: OMB sends for 2nd round LRM review
- Sept 20: Task Force Senior Steering Committee meeting
- Sept 24: Final edits based on LRM review
- Oct 1: reformatting by OPA for public release
- Oct 22: public release?

Please let me know your thoughts on this new timeline.

Best,

Ruth

Ruth A. Etzel, MD, PhD
Director
Office of Children's Health Protection
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Phone: 202-564-2188

<8-15-18 Summary version of the Draft Federal Lead Strategy.pdf>

<08-07-18 Response to LRM Comments Master Sheet.pdf>

<08-21-18 Status of Federal Lead Strategy.pdf>

Message

From: Jackson, Ryan [jackson.ryan@epa.gov]
Sent: 1/5/2018 9:45:29 PM
To: Baptist, Erik [Baptist.Erik@epa.gov]; Beck, Nancy [Beck.Nancy@epa.gov]; Benevento, Douglas [benevento.douglas@epa.gov]; Benjamin-Sirmons, Denise [Benjamin-Sirmons.Denise@epa.gov]; Bennett, Tate [Bennett.Tate@epa.gov]; Bertrand, Charlotte [Bertrand.Charlotte@epa.gov]; Bloom, David [Bloom.David@epa.gov]; Bodine, Susan [bodine.susan@epa.gov]; Bolen, Brittany [bolen.brittany@epa.gov]; Bowman, Liz [Bowman.Liz@epa.gov]; Breen, Barry [Breen.Barry@epa.gov]; Brown, Byron [brown.byron@epa.gov]; Burke, Marcella [burke.marcella@epa.gov]; Darwin, Henry [darwin.henry@epa.gov]; Darwin, Veronica [darwin.veronica@epa.gov]; Dravis, Samantha [dravis.samantha@epa.gov]; Dunn, Alexandra [dunn.alexandra@epa.gov]; Elkins, Arthur [Elkins.Arthur@epa.gov]; Etzel, Ruth [Etzel.Ruth@epa.gov]; Ferguson, Lincoln [ferguson.lincoln@epa.gov]; Fine, Steven [fine.steven@epa.gov]; Flynn, Mike [Flynn.Mike@epa.gov]; Fonseca, Silvina [Fonseca.Silvina@epa.gov]; Forsgren, Lee [Forsgren.Lee@epa.gov]; Fotouhi, David [Fotouhi.David@epa.gov]; Glenn, Trey [Glenn.Trey@epa.gov]; Grantham, Nancy [Grantham.Nancy@epa.gov]; Greaves, Holly [greaves.holly@epa.gov]; Greenwalt, Sarah [greenwalt.sarah@epa.gov]; Gulliford, Jim [gulliford.jim@epa.gov]; Gunasekara, Mandy [Gunasekara.Mandy@epa.gov]; Hanson, Paige (Catherine) [hanson.catherine@epa.gov]; Harlow, David [harlow.david@epa.gov]; Hladick, Christopher [hladick.christopher@epa.gov]; Hupp, Millan [hupp.millan@epa.gov]; Idsal, Anne [idsal.anne@epa.gov]; Jackson, Ryan [jackson.ryan@epa.gov]; Kelly, Albert [kelly.albert@epa.gov]; Lawrence, Tanya [Lawrence.Tanya@epa.gov]; Leopold, Matt [Leopold.Matt@epa.gov]; Lopez, Peter [lopez.peter@epa.gov]; Lyons, Troy [lyons.troy@epa.gov]; Munoz, Charles [munoz.charles@epa.gov]; Nishida, Jane [Nishida.Jane@epa.gov]; Orme-Zavaleta, Jennifer [Orme-Zavaleta.Jennifer@epa.gov]; Ross, David P [ross.davidp@epa.gov]; Sands, Jeffrey [sands.jeffrey@epa.gov]; Schwab, Justin [Schwab.Justin@epa.gov]; Servidio, Cosmo [Servidio.Cosmo@epa.gov]; Slotkin, Ron [slotkin.ron@epa.gov]; Stepp, Cathy [stepp.cathy@epa.gov]; Strauss, Alexis [Strauss.Alexis@epa.gov]; Traylor, Patrick [traylor.patrick@epa.gov]; Vizian, Donna [Vizian.Donna@epa.gov]; Wagner, Kenneth [wagner.kenneth@epa.gov]; Wehrum, Bill [Wehrum.Bill@epa.gov]; White, Elizabeth [white.elizabeth@epa.gov]; Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]; Woods, Clint [woods.clint@epa.gov]; Yamada, Richard (Yujiro) [yamada.richard@epa.gov]; Zarba, Christopher [Zarba.Christopher@epa.gov]
CC: Ford, Hayley [ford.hayley@epa.gov]; Dickerson, Aaron [dickerson.aaron@epa.gov]
Subject: Senior Staff Meeting on Mondays at 2pm

All –

For the new year we will resume the Monday Senior Staff Meetings at a new time – 2pm eastern. The Administrator plans to attend as often as possible, and I appreciate the program offices and regions work on the weekly reports. However, to streamline the process further rather than four sections, please keep all weeklies to no more than one page with two sections on hot topics and upcoming major decisions and events.

Thank you.

Ryan Jackson
Chief of Staff
U.S. Environmental Protection Agency

Ex. 6

Appointment

From: Etzel, Ruth [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=96A20535ABB54ED4ABF1E40D2AA916D9-ETZEL, RUTH]
Sent: 6/5/2018 12:00:57 PM
To: Jackson, Ryan [jackson.ryan@epa.gov]; AO-OCHP-Everyone [AOOCHPEveryone@epa.gov]
CC: Willis, Sharnett [Willis.Sharnett@epa.gov]; Curtis, Mellasonda [Curtis.Mellasonda@epa.gov]; Figueroa, Zaida [Figueroa.Zaida@epa.gov]; Firestone, Michael [Firestone.Michael@epa.gov]; Hackel, Angela [Hackel.Angela@epa.gov]; Shah, Manthan [shah.manthan@epa.gov]; Belle, Kara [Belle.Kara@epa.gov]; Euling, Susan [Euling.Susan@epa.gov]; Dzubow, Rebecca [Dzubow.Rebecca@epa.gov]; Foos, Brenda [Foos.Brenda@epa.gov]; Schroeder, Kathleen [Schroeder.Kathleen@epa.gov]; Dai, Mona [dai.mona@epa.gov]; Basden, Phyllis [Basden.PhyllisC@epa.gov]; Ramos, Danielle [ramos.danielle@epa.gov]; Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
BCC: DCRoomWest1144C/OCHP [DCRoomWest1144C@epa.gov]

Subject: Meet and Greet Office of Children's Health Protection Staff w/ EPA Chief of Staff Ryan Jackson
Attachments: OCHP Staff June 5 2018.docx
Location: DCRoomWest1144C/OCHP (Call-in Number: Ex. 6

Start: 6/5/2018 6:00:00 PM
End: 6/5/2018 6:30:00 PM
Show Time As: Tentative

Agenda for the Ryan Jackson Meet & Greet with OCHP

When: Tuesday June 5, 2018; 2:00 to 2:30 pm
Where: West Building, Room 1144C

2:00 to 2:05 pm	Introduce Chief of Staff – Ryan Jackson	(Ruth Etzel)
2:05 to 2:10 pm	Welcome from the Administrator's Office	(Ryan Jackson)
2:10 to 2:25 pm	Introduce OCHP	(Ruth Etzel & OCHP staff)
2:25 to 2:30 pm	Q & A's	(All)

OCHP Staff

Management
Ruth A. Etzel, Director
Michael Firestone Acting Associate Director
Brenda Foos, Division Director (Regulatory Support and Science Policy)
Angela Hackel, Division Director (Program Implementation and Coordination)

Career Staff
Kara Belle
Martha Berger
Theodore Coopwood (on detail to OEE)
Rebecca Dzubow
Susa Euling
Zaida Figueroa
Daniel Malashock
Marcia Kargbo
Manthan Shah
LaVonne Switzer

SEE Employees
Phyllis C Basden, Admin. Assistant
Mellasonda Curtis, Assistant to Director
Ann Fisher-Durrah, Travel Coordinator
Kathleen Schroeder, Medical Doctor

Fellows
Mona Dai (ORISE)
Katherine Fallace (ASPH)
Danielle Ramos (ASPH)
Margaret Willis (ORISE)

Message

From: Etzel, Ruth [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=96A20535ABB54ED4ABF1E40D2AA916D9-ETZEL, RUTH]
Sent: 6/5/2018 9:54:48 PM
To: Jackson, Ryan [jackson.ryan@epa.gov]
Subject: Thank you for making time to meet the OCHP staff

Hi Ryan,

I am delighted that you were able to meet the OCHP staff this afternoon; thanks for spending time to learn more about our work. I look forward to having an opportunity for a more comprehensive discussion with you about the nearly-final draft Federal Lead Strategy. We are still on target to finish it by the end of June.

Best,

Ruth

Ruth A. Etzel, MD, PhD
Director
Office of Children's Health Protection
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Phone: 202-564-2188

From: Jackson, Ryan
Sent: Tuesday, June 05, 2018 2:02 PM
To: Etzel, Ruth <Etzel.Ruth@epa.gov>
Subject:

I'm running late but on my way.

Ryan Jackson
Chief of Staff
U.S. Environmental Protection Agency

Ex. 6

Message

From: Etzel, Ruth [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=96A20535ABB54ED4ABF1E40D2AA916D9-ETZEL, RUTH]
Sent: 12/4/2017 11:14:45 AM
To: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]
CC: Allen, Reginald [Allen.Reginald@epa.gov]; Jackson, Ryan [jackson.ryan@epa.gov]
Subject: Re: future travel plans

Hi Helena,

I have a question with regard to your request for travel plans. Do you want to include travel for which outside sources have offered to pay? If so, I would like to let you know that the Hurley Children's Hospital in Flint, Michigan, has invited me to be a guest speaker at their Annual Pediatric Research Day on March 21, 2018. They have offered to pay travel costs, including air fare and hotel costs.

This week I plan to submit their invitation letter to the EPA Ethics Office for a determination about the suitability of accepting this offer. If you would like me to include this invitation in the list of travel plans, please let me know.

Best,

Ruth

On Dec 1, 2017, at 11:20 AM, Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov> wrote:

> Thank you to those that have submitted your travel plans. For those that have not submitted, please send along by COB today. I plan to compile, work with Reggie, and submit to Ryan by early next week (or sooner)
>
> Helena
>
> ---
>
> **From:** Jackson, Ryan
> **Sent:** Monday, November 20, 2017 7:59 AM
> **To:** Caraballo, Mario <Caraballo.Mario@epa.gov>; Etzel, Ruth <Etzel.Ruth@epa.gov>; Lawrence, Tanya <Lawrence.Tanya@epa.gov>; White, Elizabeth <white.elizabeth@epa.gov>; Allen, Reginald <Allen.Reginald@epa.gov>; Zarba, Christopher <Zarba.Christopher@epa.gov>; Benjamin-Sirmons, Denise <Benjamin-Sirmons.Denise@epa.gov>
> **Cc:** Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>
> **Subject:** future travel plans
>
> All, would you provide a list of future travel plans for the remainder of this year and the first quarter of next year for personnel in you offices and the purpose of the travel to Helena sometime this week. Thank you.
>
> Ryan Jackson
> Chief of Staff
> U.S. Environmental Protection Agency
> Ex. 6

Message

From: Jackson, Ryan [jackson.ryan@epa.gov]
Sent: 8/21/2017 11:11:47 PM
To: Etzel, Ruth [Etzel.Ruth@epa.gov]
Subject: Internal Deliberative Draft
Attachments: Final OP Reorg Memo.docx

Ruth, attached is the proposal as is per our conversation today. Please let me know your thoughts.

Ryan Jackson
Chief of Staff
U.S. Environmental Protection Agency
Ex. 6

Message

From: Jackson, Ryan [jackson.ryan@epa.gov]
Sent: 3/27/2017 12:10:26 PM
To: Etzel, Ruth [Etzel.Ruth@epa.gov]
Subject: RE: Items

Big thanks. Will you remind me when the next task force meeting is or would otherwise usually be?

-----Original Message-----
From: Etzel, Ruth
Sent: Monday, March 27, 2017 6:25 AM
To: Jackson, Ryan <jackson.ryan@epa.gov>
Subject: FW: Items

Hi Ryan,

Thanks for your message. The two briefings were sent to you on March 7 (see below) but I imagine that you have been overwhelmed with e-mail messages. I would be happy to follow up with you on the co-chairmanship of the President's Task Force with Secretary Price. Shall I stay briefly after the Senior Staff meeting today at 1 -2 pm?

Best,

Ruth

Ruth A. Etzel, MD, PhD
Director
Office of Children's Health Protection
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Phone: 202-566-1530

-----Original Message-----
From: Etzel, Ruth
Sent: Tuesday, March 07, 2017 6:33 PM
To: Jackson, Ryan <jackson.ryan@epa.gov>
Cc: Susan Burden (Burden.Susan@epa.gov) <Burden.Susan@epa.gov>
Subject: RE: Items

Hi Ryan,

Attached as requested are two briefings:

1. PCBs in schools
2. President's Task Force on Environmental Health Risks and Safety Risks to Children

There is, of course, extensive information available on both of these topics, and I would be happy to provide more detail to the Administrator should he desire it. By the way, it is my understanding from speaking with Secretary Price's staff this afternoon that he has not yet been briefed about the President's Task Force.

Best,

Ruth

Ruth A. Etzel, MD, PhD
Director
Office of Children's Health Protection
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Phone: 202-566-1530

-----Original Message-----
From: Jackson, Ryan
Sent: Monday, March 06, 2017 11:07 AM
To: Etzel, Ruth <Etzel.Ruth@epa.gov>
Subject: Items

Good morning Ruth.

I just wanted to follow up with you from our introductory OA meeting in the Alm Room.

Can you help me gather some information for a paper briefing at this point for the Administrator with EPA authorities and issues surrounding PCBs in school?

Also I wanted to get further information by paper as well on the 17 agency Childrens' Health Committee. The Administrator is eager to speak with Secretary Price about it.

Thank you.

Ryan Jackson
Chief of Staff
U.S. EPA

Ex. 6

Message

From: Jackson, Ryan [jackson.ryan@epa.gov]
Sent: 3/26/2017 9:21:14 PM
To: Etzel, Ruth [Etzel.Ruth@epa.gov]
Subject: RE: Items

Ruth, just wanted to check up on some briefing papers on this. Big thanks.

Also, I need to follow up with you on the cochairmanship of the committee with Secretary Price.

Ryan.

-----Original Message-----
From: Etzel, Ruth
Sent: Monday, March 6, 2017 11:56 AM
To: Jackson, Ryan <jackson.ryan@epa.gov>
Subject: RE: Items

Hi Ryan,

Absolutely! I can provide briefings on these issues. The amount of information on both these issues is huge, so please let me know how much you want (1 page on each?). Also, FYI, the EPA lead on PCBs is Jeff Morris, Director, Office of Pollution Prevention & Toxics, so I would be happy to share this request with him and work together on a response.

Best,

Ruth

Ruth A. Etzel, MD, PhD
Director
Office of Children's Health Protection
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Phone: 202-566-1530

-----Original Message-----
From: Jackson, Ryan
Sent: Monday, March 06, 2017 11:07 AM
To: Etzel, Ruth <Etzel.Ruth@epa.gov>
Subject: Items

Good morning Ruth.

I just wanted to follow up with you from our introductory OA meeting in the Alm Room.

Can you help me gather some information for a paper briefing at this point for the Administrator with EPA authorities and issues surrounding PCBs in school?

Also I wanted to get further information by paper as well on the 17 agency Childrens' Health Committee. The Administrator is eager to speak with Secretary Price about it.

Thank you.

Ryan Jackson
Chief of Staff
U.S. EPA

Ex. 6

Message

From: Etzel, Ruth [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=96A20535ABB54ED4ABF1E40D2AA916D9-ETZEL, RUTH]
Sent: 8/22/2017 12:23:57 PM
To: Jackson, Ryan [jackson.ryan@epa.gov]
Subject: RE: Internal Deliberative Draft
Attachments: Final OP Reorg Memo rae.docx

Hi Ryan,

Thank you very much for sharing this draft. Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

Deliberative Process / Ex. 5 Pardon me – I'm an inveterate editor!

Best,

Ruth

From: Jackson, Ryan
Sent: Monday, August 21, 2017 7:12 PM
To: Etzel, Ruth <Etzel.Ruth@epa.gov>
Subject: Internal Deliberative Draft

Ruth, attached is the proposal as is per our conversation today. Please let me know your thoughts.

Ryan Jackson
Chief of Staff
U.S. Environmental Protection Agency
Ex. 6

Message

From: Etzel, Ruth [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=96A20535ABB54ED4ABF1E40D2AA916D9-ETZEL, RUTH]
Sent: 5/24/2017 8:09:08 PM
To: Hupp, Sydney [hupp.sydney@epa.gov]
CC: Dickerson, Aaron [dickerson.aaron@epa.gov]; Jackson, Ryan [jackson.ryan@epa.gov]
Subject: RE: Coalition for Healthier Schools Letter requesting meeting with Admin Pruitt re President's call for Infrastructure
Attachments: Background on the Coalition for Healthier Schools Mtg.docx

Hi Sydney,

Tomorrow we will be meeting with the Coalition for Healthier Schools at 10:30 am in Room 3530 in the North Building. I recall that you were planning to check if Ryan might be able to participate – do you have any additional information?

(Attached is a short briefing for Ryan in case he is able to come).

Thank you!

Best,

Ruth

From: Hupp, Sydney
Sent: Thursday, April 27, 2017 11:37 AM
To: Etzel, Ruth <Etzel.Ruth@epa.gov>
Cc: Dickerson, Aaron <dickerson.aaron@epa.gov>; Jackson, Ryan <jackson.ryan@epa.gov>
Subject: RE: Coalition for Healthier Schools Letter requesting meeting with Admin Pruitt re President's call for Infrastructure

Hi Ruth,

Great! Spoke with Ryan about that this morning and he might want to attend. Looking to see if he might be able to participate.

Thank you!

Sydney Hupp
Executive Scheduler
Office of the Adminsitrator
Ex. 6 (c)

From: Etzel, Ruth
Sent: Thursday, April 27, 2017 11:35 AM
To: Hupp, Sydney <hupp.sydney@epa.gov>
Cc: Dickerson, Aaron <dickerson.aaron@epa.gov>; Jackson, Ryan <jackson.ryan@epa.gov>
Subject: RE: Coalition for Healthier Schools Letter requesting meeting with Admin Pruitt re President's call for Infrastructure

Hi Sydney,

This is in follow up to your request that I set up a meeting with the Coalition for Healthier Schools. I reached out to Claire Barnett and spoke with her about possible dates for her visit to EPA. She was delighted that I called because she had just reached out to Ryan by e-mail this morning – so my response was timely. She is available on the morning of May 25. I am proposing a meeting at 10:30 – 11:00 am on May 25 and I would like to know if you wish to identify one of the Administrator's political appointees to join me for some/ all of this meeting.

Best,

Ruth

Ruth A. Etzel, MD, PhD
Director
Office of Children's Health Protection
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Phone: 202-564-2188

From: Hupp, Sydney
Sent: Monday, April 17, 2017 4:52 PM
To: Etzel, Ruth <Etzel.Ruth@epa.gov>
Cc: Dickerson, Aaron <dickerson.aaron@epa.gov>
Subject: FW: Ltr requesting mtg with Admin Pruitt re President's call for Infrastructure

Good afternoon Ruth,

Hope you have been having a good Monday! Ryan asked me if I would forward this request over to you and see if you wouldn't mind reaching out and offering to meet with this group on behalf of the office?

Sydney Hupp
Office of the Administrator- Scheduling
Ex. 6

From: Claire Barnett [mailto:cbarnett@healthyschools.org]
Sent: Monday, March 27, 2017 1:42 PM
To: Hupp, Sydney <hupp.sydney@epa.gov>
Cc: cbarnett@healthyschools.org
Subject: Ltr requesting mtg with Admin Pruitt re President's call for Infrastructure

Coalition for Healthier Schools

March 27, 2017- via email

Scott Pruitt, Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW, HQ Mail 1101A
Washington, D.C. 20460

Dear Administrator Pruitt:

We are writing on behalf of our hundreds of coalition members and colleagues from education, health, environment, and parent organizations, to congratulate you on your appointment. We also would like to request a meeting with you to formally introduce the coalition and discuss our interests in working with you and your team on EPA policy issues to support children's health and learning. Attached is our policy whitepaper that we sent to the President-Elect's transition team in December, which outlines some of our ideas.

Given the President's repeated calls to address America's infrastructure, including schools, and a recent report from the American Society of Civil Engineers (ASCE) that graded our national school infrastructure a D+ (barely ahead of its D rating in 2013), we want to apprise you of our work to address decaying schools. We also want to highlight the EPA's unique leadership in addressing this issue and in supporting children's environmental health at school and in child care facilities.

See attached full letter and link to policy paper shared with the Trump Transition Team.

Thank you

Claire Barnett

Claire L. Barnett, MBA, Founder and Executive Director
Healthy Schools Network, Inc.
(w) Ex. 6
(m)

Coordinator, National Coalition for Healthier Schools
...providing the platform and the forum for environmental health at school ... since 2001

HealthySchools.org – for children, health, environment, education and communities since 1995
NationalHealthySchoolsDay.org – Join us for the 15th Annual Day on Tuesday, April 4, 2017
CleaningforHealthySchools.org – green & healthy products for schools

U.S. Environmental Protection Agency
Washington, DC
May 24, 2017
Coalition for Healthier Schools Meeting

EVENT DATE: May 25, 2017
EVENT TIME: 10:30 AM-11:00 AM
FROM: Ruth Etzel, Director, Office of Children's Health Protection

I. PURPOSE

We will meet with the Coalition for Healthier Schools (Coalition) to discuss their interests in working with EPA on policy issues to support children's health and learning. The Coalition is a group of non-profits and associations convened in 2001 by the Healthy Schools Network. Healthy Schools Network is a national 501(c)(3) organization founded by Claire Barnett. The Coalition works at the nexus of children's health, environment, and education. It aims to protect vulnerable children from environmental health hazards at schools using a mix of research, technical assistance, diverse reach, and advocacy.

The Coalition is likely to discuss funding and efforts to improve school infrastructure and operation and maintenance practices in schools which have enormous impacts on student health, performance and productivity. Coalition members believe that poor school facilities often have problems with indoor air, ventilation, growing molds, lead in paint and drinking water, PCBs, poor chemical management, lighting, and acoustics which can impair the health of children. Funding of the key programs at EPA which are making significant impacts on these issues will also likely be topics of discussion.

II. PARTICIPANTS

- **Coalition for Healthier Schools**
  - Claire Barnett, MBA, Executive Director, Healthy Schools Network
  - Nsedu (Nse) Obot Witherspoon, MPH, Executive Director, Children's Environmental Health Network
  - Janet A. Phoenix, MD, MPH, Assistant Research Professor, George Washington Milken Institute School of Public Health

- **EPA**
  - Ruth Etzel, MD, Director, Office of Children's Health Protection
  - Jonathan Edwards, Director, Office or Radiation and Indoor Air/OAR
  - David Rowson, Director, Indoor Environments Division, ORIA

III. BACKGROUND

There are many reasons why addressing the environmental health of schools is essential for protecting children's health and improving their performance:

- A child's developing organ systems are sensitive to environmental exposures, and children are frequently more heavily exposed to toxic substances in the environment than are adults.
- Children spend 90% of their time indoors and much of that time is spent in school.

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- Unhealthy school environments can affect children's health, attendance, concentration and performance, as well as lead to expensive, time-consuming cleanup and remediation activities.
- Schools in better physical condition and which implement better operation and maintenance practices report improved academic performance while schools with fewer janitorial personnel and higher maintenance backlogs report poorer academic performance.
- For example, good ventilation alone in classrooms reduces absences, improves productivity and raises standardized test scores by as much as 15% compared to other classrooms.

IV. EPA HEALTHY SCHOOLS TOOLS AND PROGRAMS

- 3Ts for Reducing Lead in Drinking Water in Schools - EPA's revised guidance and toolkit provides simple strategies to manage the health risks of lead in school drinking water.
- EPA's *Indoor Air Quality Tools for Schools* guidance and tools equip schools and districts to design, implement and sustain comprehensive IAQ management programs that address common pollutants/environmental conditions known to impact student and staff health, performance and productivity. Most recent CDC survey shows that nearly half of the schools in the US have IAQ management programs and the majority of those are based on EPA'S IAQ Tools for Schools guidance. Still, more than half of the nation's schools have not adopted such practices.
- Sensible Guide for Healthier School Renovations booklet provides school administrators, facility managers, staff and the school community with an overview of how to avoid key environmental health hazards and ways to minimize children's exposures as they prepare for and undergo renovations.
- EPA's Energy Savings Plus Health: IAQ Guidelines for School Building Upgrades equips school districts to integrate indoor air quality protections into school energy efficiency retrofits and other building upgrade projects without compromising occupant health.
- The School IAQ Assessment mobile app provides schools and school districts find strategies for addressing critical building-related environmental health issues such as ventilation, cleaning and maintenance, environmental asthma triggers, radon, and integrated pest management.
- The School Siting Guidelines help communities consider environmental health when establishing school site selection criteria and conducting environmental reviews of prospective sites
- The State School Environmental Health Guidelines presents recommendations, case studies, and resources to help states create or improve environmental health programs for K-12 schools.
- ENERGY STAR for K-12 School Districts describes EPA's partnership with schools across the country to provide technical support, guidance on financing options and recognition for schools wanting to use energy more efficiently.
- EPA's Best Practices for Reducing Near-Road Air Pollution Exposure at Schools guidance helps school communities identify strategies for reducing traffic-related pollution exposure at schools located downwind from heavily traveled roadways, along

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corridors with significant trucking traffic, or near other traffic or vehicular pollution sources

- The Toolkit for Safe Chemical Management in K-12 Schools is EPA's web-based tool kit that helps schools start chemical management programs.
- The Agency's School Integrated Pest Management (IPM) Strategic Plan describes approaches and overall activities to be undertaken to achieve safer, usually less costly options for effective pest management.
- EPA awarded Science to Achieve Results (STAR)grants to seven universities to inform school building (K-12 educational facilities) design, construction and operation practices in order to foster safe and healthy school environments and maximize student achievement and teacher/staff effectiveness.

V. ATTACHMENT

- Participant Bibliographies

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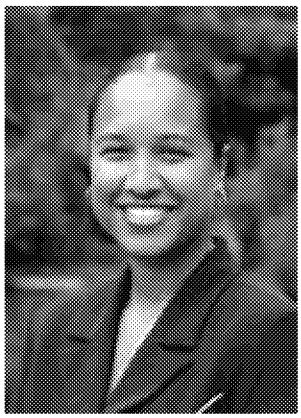
Participant Bios

Claire L. Barnett, MBA, is the Founder and Executive Director of the Healthy Schools Network, Inc. (HS Network) and Coordinator of the Coalition for Healthier Schools. She founded HS Network in 1995, several years after her middle-school son was injured by pesticides at school. In 2017 Claire Barnett received the William R. Reilly Award in Environmental Leadership from the Center for Environmental Policy at American University. As an early advocate for environmental health, Ms. Barnett was appointed to EPA's Children's Health Protection federal advisory committee. Other associations include: a member of the national Childhood Asthma Leadership Coalition, the National Coordinating Committee on School Health and Safety, an adviser to the City of Philadelphia Schools' Asthma Committee and to the Collaborative for High Performance Schools, a member of EPA's leadership group for school environments, and a member of two New York State work groups on energy and sustainable schools.



Nsedu (Nse) Obot Witherspoon, MPH, serves at the Executive Director for the Children's Environmental Health Network (CEHN), where her responsibilities include organizing, leading, and managing policy, education/training, and science-related programs. For the past 14 years, she has served as a spokesperson for children's vulnerabilities and the need for their protection, conducting presentations and lectures across the country. She served as a member of the Institute of Medicine's Environmental Health Sciences Roundtable, and Co-Chair of the Leadership Council for the National Conversation on Public Health and Chemical Exposures. She is a member of the Friends of the Columbia Center for Children's Environmental Health and a Strategy Advisor for the California Breast Cancer Prevention Initiatives (CBCPI) Project. Ms. Witherspoon is also a Board member for the Pesticide Action Network of North America and serves on the Maryland Children's Environmental Health Advisory Council. Ms. Witherspoon has held past appointments on EPA's Children's Health Protection Advisory Committee and the Board for the American Public Health Association. She is a past member of the National Association of Environmental Health Sciences Council and past Coordinator of the National Institute for Environmental Health Sciences Public Interest Partners. Ms. Witherspoon has the distinct honor of having one of CEHN's leadership awards, the Nsedu Obot Witherspoon (NOW) Youth Leadership Award, named in her honor. She is also the recent recipient of the William R. Reilly Award in Environmental Leadership from the Center for Environmental Policy at American University.

Janet A. Phoenix, MD, MPH, is an Assistant Research Professor at George Washington Milken Institute School of Public Health. Dr. Phoenix is also the manager of public health programs for the Environmental Health Center of the National Safety Council, a non-profit organization providing information to the public on critical issues in health, the environment, and safety. She is responsible for designing educational programs for those at high risk of accidents and environment-related diseases. Dr. Phoenix was the recipient of a 2008 Health Policy Fellowship from the Robert Wood Johnson Foundation.

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She spent her fellowship year working on health care reform efforts in the US Senate. Dr. Phoenix designed and implemented a home visiting program for developmentally disabled children to identify environmental asthma triggers and environmental hazards and to educate families on risk reduction strategies. She served on two federal advisory committees, CDC's Lead Poisoning Advisory Committee and EPA's Children's Health Protection Advisory Committee. She has international experience having consulted for the US AID and EPA in efforts to eliminate the use of leaded gasoline. Dr. Phoenix directed a community based participatory research project in the District of Columbia. Dr. Phoenix managed the National Lead Information Center a federally funded hotline and clearinghouse. She was the Director of Health Education for the Alliance to End Childhood Lead Poisoning a national advocacy organization now known as the Alliance for Healthy Housing.

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Message

From: Etzel, Ruth [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=96A20535ABB54ED4ABF1E40D2AA916D9-ETZEL, RUTH]
Sent: 5/30/2017 11:26:00 AM
To: Jackson, Ryan [jackson.ryan@epa.gov]
Subject: Follow-up on American Academy of Pediatrics visit to EPA

Hi Ryan,

Great! How about tomorrow afternoon at 3?

Best,

Ruth

From: Jackson, Ryan
Sent: Sunday, May 28, 2017 2:37 PM
To: Etzel, Ruth <Etzel.Ruth@epa.gov>
Subject:

Ruth, sometime this next week, I'd like to follow up with you on the hot spot map and Zika discussion. Thanks.

Ryan Jackson
Chief of Staff
U.S. Environmental Protection Agency

Ex. 6

Message

From: Etzel, Ruth [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=96A20535ABB54ED4ABF1E40D2AA916D9-ETZEL, RUTH]
Sent: 5/24/2017 3:46:11 PM
To: Greenwalt, Sarah [greenwalt.sarah@epa.gov]
CC: Dravis, Samantha [dravis.samantha@epa.gov]; Kelly, Albert [kelly.albert@epa.gov]; Jackson, Ryan [jackson.ryan@epa.gov]; Fotouhi, David [fotouhi.david@epa.gov]; Brown, Byron [brown.byron@epa.gov]
Subject: RE: Meeting with WaterGen Reps

Hi Sarah,

Deliberative Process / Ex. 5

Best,

Ruth

Ruth A. Etzel, MD, PhD
Director
Office of Children's Health Protection
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Phone: 202-564-2188

From: Greenwalt, Sarah
Sent: Wednesday, May 10, 2017 2:42 PM
To: Brown, Byron <brown.byron@epa.gov>
Cc: Dravis, Samantha <dravis.samantha@epa.gov>; Kelly, Albert <kelly.albert@epa.gov>; Jackson, Ryan <jackson.ryan@epa.gov>; Etzel, Ruth <Etzel.Ruth@epa.gov>; Fotouhi, David <fotouhi.david@epa.gov>
Subject: Re: Meeting with WaterGen Reps

Let's do 9-10am. The Administrator and Ryan specifically asked to include each of you, so please come if you can.

Thanks!

Sent from my iPhone

On May 10, 2017, at 1:56 PM, Brown, Byron <brown.byron@epa.gov> wrote:

> I can do 10:45 to 12 noon.
>
> Sent from my iPhone
>
> On May 10, 2017, at 11:49 AM, Greenwalt, Sarah <greenwalt.sarah@epa.gov> wrote:
>
> > All, the Administrator would like us to have a follow up meeting with Maxim Pasik and Yehuda Kaploun regarding use of WaterGen products at superfund sites and

schools before they leave for Israel tomorrow. I'm available from 9-10, 10:45-11:30; and 12-1. Would any of those times work for you?

Sarah A. Greenwalt
Senior Advisor to the Administrator
for Water and Cross-Cutting Issues

U.S. Environmental Protection Agency
Work: 202-564-1722 | Cell: Ex. 6
Greenwalt.Sarah@epa.gov

Message

From: Etzel, Ruth [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=96A20535ABB54ED4ABF1E40D2AA916D9-ETZEL, RUTH]
Sent: 3/7/2017 11:33:14 PM
To: Jackson, Ryan [jackson.ryan@epa.gov]
CC: Susan Burden (Burden.Susan@epa.gov) [Burden.Susan@epa.gov]
Subject: RE: Items
Attachments: PCBs in Schools 3.7.17.docx; President's Task Force.docx

Hi Ryan,

Attached as requested are two briefings:

1. PCBs in schools
2. President's Task Force on Environmental Health Risks and Safety Risks to Children

There is, of course, extensive information available on both of these topics, and I would be happy to provide more detail to the Administrator should he desire it. By the way, it is my understanding from speaking with Secretary Price's staff this afternoon that he has not yet been briefed about the President's Task Force.

Best,

Ruth

Ruth A. Etzel, MD, PhD
Director
Office of Children's Health Protection
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Phone: 202-566-1530

-----Original Message-----
From: Jackson, Ryan
Sent: Monday, March 06, 2017 11:07 AM
To: Etzel, Ruth <Etzel.Ruth@epa.gov>
Subject: Items

Good morning Ruth.

I just wanted to follow up with you from our introductory OA meeting in the Alm Room.

Can you help me gather some information for a paper briefing at this point for the Administrator with EPA authorities and issues surrounding PCBs in school?

Also I wanted to get further information by paper as well on the 17 agency Childrens' Health Committee. The Administrator is eager to speak with Secretary Price about it.

Thank you.

Ryan Jackson
Chief of Staff
U.S. EPA
Ex. 6

Message

From: Etzel, Ruth [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=96A20535ABB54ED4ABF1E40D2AA916D9-ETZEL, RUTH]
Sent: 3/27/2017 12:20:47 PM
To: Jackson, Ryan [jackson.ryan@epa.gov]
Subject: RE: Items

Hi Ryan,

The Task Force itself meets about once a year (and not at all in some years, depending on the schedules and wishes of the Administrator and the Secretary). As you know, it's fairly difficult to get 17 Principals together at one time. The last Task Force Principals' meeting was in October 2015. The Senior Steering Committee, on the other hand, meets each month, and the next meeting is on April 20. The members of the Senior Steering Committee are senior employees of each agency who are tasked with carrying out the day to day work of the Task Force.

If Administrator Pruitt would like to have a Task Force Principals' meeting, we are at your service to help arrange it.

Best,

Ruth

-----Original Message-----
From: Jackson, Ryan
Sent: Monday, March 27, 2017 8:10 AM
To: Etzel, Ruth <Etzel.Ruth@epa.gov>
Subject: RE: Items

Big thanks. Will you remind me when the next task force meeting is or would otherwise usually be?

-----Original Message-----
From: Etzel, Ruth
Sent: Monday, March 27, 2017 6:25 AM
To: Jackson, Ryan <jackson.ryan@epa.gov>
Subject: FW: Items

Hi Ryan,

Thanks for your message. The two briefings were sent to you on March 7 (see below) but I imagine that you have been overwhelmed with e-mail messages. I would be happy to follow up with you on the co-chairmanship of the President's Task Force with Secretary Price. Shall I stay briefly after the Senior Staff meeting today at 1 -2 pm?

Best,

Ruth

Ruth A. Etzel, MD, PhD
Director
Office of Children's Health Protection
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Phone: 202-566-1530

-----Original Message-----
From: Etzel, Ruth
Sent: Tuesday, March 07, 2017 6:33 PM
To: Jackson, Ryan <jackson.ryan@epa.gov>
Cc: Susan Burden (Burden.Susan@epa.gov) <Burden.Susan@epa.gov>
Subject: RE: Items

Hi Ryan,

Attached as requested are two briefings:

1. PCBs in schools
2. President's Task Force on Environmental Health Risks and Safety Risks to Children

There is, of course, extensive information available on both of these topics, and I would be happy to provide more detail to the Administrator should he desire it. By the way, it is my understanding from

speaking with Secretary Price's staff this afternoon that he has not yet been briefed about the President's Task Force.

Best,

Ruth

Ruth A. Etzel, MD, PhD
Director
Office of Children's Health Protection
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Phone: 202-566-1530

-----Original Message-----
From: Jackson, Ryan
Sent: Monday, March 06, 2017 11:07 AM
To: Etzel, Ruth <Etzel.Ruth@epa.gov>
Subject: Items

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Thank you.

Ryan Jackson
Chief of Staff
U.S. EPA

Ex. 6