



CRWI Update April 30, 2023

MEMBER COMPANIES

Clean Harbors Environmental Services
Eastman Chemical Company
Heritage Thermal Services
INV Nylon Chemicals Americas, LLC
Ross Incineration Services, Inc.
The Dow Chemical Company
Veolia ES Technical Solutions, LLC

GENERATOR MEMBERS

Eli Lilly and Company
Formosa Plastics Corporation, USA
3M

ASSOCIATE MEMBERS

AECOM
Alliance Source Testing LLC
B3 Systems
Civil & Environmental Consultants, Inc.
Coterie Environmental, LLC
Eurofins TestAmerica
Focus Environmental, Inc.
Franklin Engineering Group, Inc.
Montrose Environmental Group, Inc.
Ramboll
Spectrum Environmental Solutions LLC
Strata-G, LLC
TEConsulting, LLC
TRC Environmental Corporation
Trinity Consultants
Wood, PLC

INDIVIDUAL MEMBERS

Ronald E. Bastian, PE
Ronald O. Kagel, PhD

ACADEMIC MEMBERS (Includes faculty from:)

Clarkson University
Colorado School of Mines
Lamar University
Louisiana State University
Mississippi State University
New Jersey Institute of Technology
University of California – Berkeley
University of Dayton
University of Kentucky
University of Maryland
University of Utah

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ANPRM adding PFAS to HS under CERCLA

On April 13, 2023, EPA published an Advanced Notice of Proposed Rulemaking (ANPRM) seeking information on adding seven per- and polyfluoroalkyl substances (PFAS) to the list of hazardous substances (HS) under CERCLA. In this notice, EPA specifically asks for information to assist them in adding the following seven compounds to the list:

- Perfluorobutanesulfonic acid (PFBS);
- Perfluorohexanesulfonic acid (PFHxS);
- Perfluorononanoic acid (PFNA);
- Hexafluoropropylene oxide dimer acid (HFPO-DA, aka GenX);
- Perfluorobutanoic acid (PFBA);
- Perfluorohexanoic acid (PFHxA); and
- Perfluorodecanoic acid (PFDA).

In addition, the Agency is asking for:

- Information on environmental fate and transport and environmental prevalence of these seven compounds;
- Other PFAS compounds that should be added to the list;
- Data to conduct an economic analysis should these compounds be added;
- Information on environmental degradation of these seven compounds;
- Information on whether these seven plus perfluorooctanoic acid and perfluorooctanesulfonic acid can be formed from precursor compounds;
- What compounds should be considered as precursor compounds for these nine;
- How these precursors can be measured; and
- Opinions on whether EPA should consider if analytical methods are available when designating these compounds as hazardous substances.

To support possible future designations, the Agency is also asking for information on how to develop categories of PFAS compounds possibly based on chemical structure, carbon chain length,

functional groups, physical and/or chemical properties, and mode of action. The comment period closes on June 12, 2023.

PFDA and PFHxA IRIS releases

On April 10, 2023, EPA released a draft Integrated Risk Information System (IRIS) assessment of perfluorodecanoic acid (PFDA) and a final assessment for perfluorohexanoic acid (PFHxA). In the draft assessment for PFDA, EPA states that the compound can cause liver, immune, developmental, and reproductive effects in humans but that the evidence is lacking to make a cancer determination. EPA is proposing an organ specific reference dose of 4×10^{-10} milligrams per kilogram bodyweight per day. Comments on this draft are due on June 9, 2023. For PFHxA, the reference dose is 5×10^{-4} mg/kg/day. This assessment was based exclusively on animal studies. The assessment states that there was inadequate data to make an inhalation determination (reference concentration) or a cancer determination.

Draft assessments for perfluorohexanesulfonic acid (PFHxS) and perfluorononanoic acid (PFNA) are expected to be released in the third and fourth quarters of fiscal year 2023, respectively.

MATS proposed rule

On April 24, 2023, EPA proposed modifications to the Mercury and Air Toxics Standards (MATS) rule. This rule governs emissions from the fossil fuel electric generation source category. The proposed rule does not add any restrictions based on the risk review but proposes more stringent limits on mercury for units burning lignite and more stringent particulate matter limits for all units. In addition, the proposed rule would remove one of the two startup options and adds the requirement that a continuous emissions monitors (CEM) for particulate matter (PM) be installed. The current rule allows three methods to show compliance with the PM limits, one of which is a PM CEMs. EPA's economic analysis shows a small increase in the cost for electricity in the future and that approximately 500 megawatts of coal-fired capacity would be retired by 2028 as a result of these amendments. Comments are due on June 23, 2023.

Community-wide risk assessment

EPA included a community-wide risk assessment as part of the analysis for the proposed Hazardous Organic NESHAP risk and technology review (April 25, 2023). The community-wide analysis showed that under current requirements approximately 104,000 people within six miles of the facility have a cancer risk greater than 1 on 10,000. When the facility-wide risk assessment analysis was completed, it showed that approximately 95,000 individuals living within six miles have a cancer risk of 1 in 10,000. As a result of the facility-wide risk assessment, EPA is proposing additional restrictions. The Agency stated that these additional restrictions would eliminate 96 percent of the risks identified in the community-wide analysis. This is the first time the

Agency has publicly acknowledged making community-wide risk assessments. While they were not used in this rulemaking, it might not be the case in future proposed rules.

Environmental justice

EPA has selected 17 locations to be Environmental Justice Thriving Communities Technical Assistance Centers. Each will receive approximately \$10 million to aid underserved and overburdened communities access federal funds. The centers are to provide training on navigating the federal grant application system, writing grant proposals, effectively managing grant funding, community engagement, meeting facilitation, and translation services. Several of the centers are at universities. A complete list can be found at <https://www.epa.gov/environmentaljustice/environmental-justice-thriving-communities-technical-assistance-centers>.

To further strengthen the current administration's commitment to environmental justice, President Biden signed a new executive order to:

- Require agencies to notify nearby communities of a release of toxic substances from a federal facility;
- Recognize that racism is a fundamental driver of environmental injustice;
- Create a new Office of Environmental Justice within the White House Council on Environmental Quality;
- Require federal agencies to conduct a new assessment of their environmental justice efforts and report on their efforts on a periodic basis (Environmental Justice Scorecard);
- Increase the number of programs covered under the Justice40 Initiative; and
- Strengthen the enforcement of environmental regulations.

An earlier executive order used the phrase "disproportionately high and adverse." This executive order revises that phrase to read "disproportionate and adverse." This change was made to remove potential confusion that agencies should only consider large disproportionate impacts.

New Jersey permits rule for EJ communities

New Jersey passed a state law in 2020 that required their Department of Environmental Protection (DEP) to develop regulations to reduce pollution in overburdened communities and communities of color. DEP proposed a rule in 2022 to implement that law. On April 17, 2023, the Governor signed that rule and it became effective immediately. The final rule covers power plants, resource recovery facilities, incinerators, sludge processing plants, sewage treatment plants, transfer stations and solid waste facilities, recycling facilities, scrap metal facilities, landfills, and medical incinerator not associated with a hospital. It lays out the requirements for a new or renewal of a permit for facilities in or in close proximity to environmental justice communities.

The state statute defines overburdened communities to include any census block where at least 35% of the households qualify as low income, at least 40% identify as a minority; or at least 40% of the households have limited English proficiency.

The process for determining if a facility qualifies for additional efforts when renewing or obtaining a new permit is complicated. To help facilities understand their requirements, DEP develop a question-and-answer document. A copy can be found at <https://dep.nj.gov/wp-content/uploads/ej/docs/ej-rule-frequently-asked-questions.pdf>.

Petition to add waste incinerators to TRI reporting requirements

Public Employees for Environmental Responsibility (PEER) filed a petition with EPA asking that incinerators burning municipal waste, industrial waste, medical waste, and sewage sludge be required to report their emissions under the Toxic Release Inventory (TRI) requirements. The petition also includes pyrolysis and gasification units that treat solid waste. The petition alleges that these facilities do not destroy many chemicals including PFAS compounds and heavy metals but releases these pollutants into the atmosphere. The petition states that these emissions meet the three criteria under TRI for listing: TRI-listed chemicals are likely present; toxic chemicals are being manufactured, processed, or used; and the reporting of these emissions would increase the information available under the law. EPA has not publicly responded to the petition.

EPA personnel

On April 26, 2023, the Senate Environmental and Public Works Committee voted along party lines to advance the nomination of Joe Goffman as the next Assistant Administrator for the Office of Air and Radiation (OAR). Mr. Goffman is currently the deputy assistant administrator of OAR. The nomination now goes to the full Senate where there is significant opposition from Republicans and possibly two Democrat Senators.

Enforcement

In 2014, an incident at DuPont's LaPorte, TX facility released approximately 24,000 pounds of methyl mercaptan. The release resulted in four deaths and multiple injuries to plant personnel. On April 25, 2023, DuPont pleaded guilty to criminal negligence. The company was fined \$12 million and will serve two years of probation. During that time, the company will give the U.S. Probation Office full access to all its operating locations. The company will also make a \$4 million community service payment to the National Fish and Wildlife Foundation to address the harm caused by the release. This money is to be used to benefit air quality in and around Galveston Bay. In addition, the operations leader for the Insecticide Business Unit where the incident occurred pleaded guilty. He was sentenced to one year of probation.

In late 2021, EPA Administrator visited St. John the Baptist Parish as a part of his environmental justice tour. In 2022, the Agency conducted overflights using EPA's

Airborne Spectral Photometric Environmental Collection Technology aircraft and surface monitoring using their Geospatial Monitoring of Air Pollution vehicle to gather data of pollution levels at the fence lines as well as in local neighborhoods. These were followed up by on-the-ground inspections at specific facilities by EPA and Louisiana personnel. In addition to the enforcement actions taken against Denka (see the Match Update), the Agency announced (April 24, 2023) a settlement agreement with Evonik. As a part of the agreement, the company will implement an enhanced leak detection and repair program and install a vapor recovery system for truck loading and unloading and route that vapor to a thermal oxidizer yet to be built. The interesting part of this is that Evonik is a minor source for the pollutants in question.

Pyrolysis

One of the recent techniques touted for recycling plastics has been pyrolysis. Certain parts of industry have been trying to keep pyrolysis separate from incineration with the hopes of getting it designated as a manufacturing process instead of a treatment process. This has been opposed by other groups and EPA is being pressured to take a closer look at emissions resulting from pyrolysis of waste plastic. Partially in response, EPA released a Draft National Strategy to Prevent Plastic Pollution in April 2023 (<https://www.epa.gov/circulareconomy/draft-national-strategy-prevent-plastic-pollution>). The draft is expected to be published on May 2, 2023, with comments due on June 16, 2023. In this document, EPA states that they do not consider activities that convert non-hazardous solid waste to a fuel to be recycling. The document goes on to state that the Agency has been made aware of potential health and environmental risks associated with pyrolysis oils generated from plastic wastes. As a result, the Agency now plans to require companies using oils generated from pyrolysis to submit them for review under TSCA for impurities that may be present. This will include initial testing prior to approval as well as ongoing testing to ensure their resulting product remains free of these impurities.

In addition, EPA received a letter from Senator Jeff Merkley (D-OR), Chairman of the Senate Environment and Public Works Subcommittee on Chemical Safety, Waste Management, Environmental Justice, and Regulatory Oversight, requesting information on a 2022 approval for the use of pyrolysis oils generated from waste plastics. Some of the questions asked by Senator Merkley include why EPA streamlined these approvals, is it correct that these units emit toxic air pollutants, how many fuels were approved, why federal air regulations do not apply to this source category, and how EPA plans to monitor these industries to ensure protection of human health and the environment. Senator Merkley asked for responses by April 30, 2023.

CRWI meetings

Our next meeting will be on May 17-18, 2023, in East Liverpool, OH. Please contact CRWI (mel@crwi.org or 703-431-7343) if you have interest in attending.