www.ntaatribalair.org
928.523.0526 office
928.523.1266 fax

National Tribal Air Association
P.O. Box 15004
Flagstaff, AZ 86011-5004

Executive Committee
Region 1
Bill Thompson
Penobscot Nation

Marvin Cling
Passamaquoddy Tribe

Region 2
Angela Benedict
Saint Regis Mohawk Tribe

Steven Smith
Shinnecock Nation

Region 4
Scott Hansen
Treasurer
Catawba Indian Nation

Tiffany Lozada
Poarch Band of Creek Indians

Region 5
Brandy Toft
Vice-Chairperson
Leech Lake Band of Ojibwe

Joy Wiecks
Fond du Lac Band of Lake Superior Chippewa

Region 6
Craig Kreman
Quapaw Tribe of Oklahoma

Cherylin Atcitty
Taos Pueblo

Region 7
Billie Toledo
Prairie Band Potawatomi Nation

Allison Gienapp
Ponca Tribe of Nebraska

Region 8
Randy Ashley
Confederated Salish & Kootenai Tribes

Linda Weeks-Reddoor
Fort Peck Assiniboine-Sioux Tribes

Region 9
Wilfred J. Nabahe
Chairman
Colorado River Indian Tribes

John C. Parada
Augustine Band of Cahuilla Indians

Region 10
Carol Kriebs
Secretary
Kootenai Tribe of Idaho

Lucas Bair
Spokane Tribe

Alaska
Mary Mullan
Alaska Native Tribal Health Consortium

Ann Wyatt
Klawock Cooperative Association

November 12, 2019

EPA Docket Center
EPA, Mail code 28221T
1200 Pennsylvania Ave, NW
Washington, DC 20460

RE: Docket No. EPA-HQ-OAR-2017-0664 Proposed Rule: National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing Residual Risk and Technology Review

The National Tribal Air Association (NTAA) is pleased to submit these comments regarding the action described above. The NTAA is a member-based organization with 148 principle member Tribes. The organization's mission is to advance air quality management policies and programs, consistent with the needs, interests, and unique legal status of Indian Tribes. As such, the NTAA uses its resources to support the efforts of all federally recognized Tribes in protecting and improving the air quality within their respective jurisdictions. Although the organization always seeks to represent consensus perspectives on any given issue, it is important to note that the views expressed by the NTAA may not be agreed upon by all Tribes. Further, it is also important to understand interactions with the organization do not substitute for government-to-government consultation, which can only be achieved through direct communications between the federal government and Indian Tribes.

Section 112 of the Clean Act Air (CAA) requires that major sources of hazardous air pollutants (HAPs), or sources that emit or have the potential to emit 10 tons per year (tpy) of any one HAP or 25 tpy of any combination of HAPs, comply with standards that achieve the "maximum degree of reduction" in HAP emissions (referred to as MACT).[1] On October 20, 2003, EPA issued the air toxics standards for Taconite Ore Processing, which applied to major source facilities engaged in separating and concentrating iron ore from taconite (a low-grade iron ore) to produce taconite pellets. These taconite pellets are then used as feed in blast furnaces to produce steel.

In the 2003 rulemaking, EPA assumed that particulate matter (PM) could serve as a surrogate for metallic HAPs, and therefore set emissions standards for PM but not metallic HAPs. In reaction to the issuance of this rule, the National Wildlife Federation filed a petition for review in 2004 based on a number of technical issues, one of which was the EPA's failure to establish specific emission standards for mercury and asbestos-like fibers, which are sometimes referred to as Elongated Mineral Particles (EMP). As a result of that petition, the EPA took a voluntary remand of these standards, planning to address them upon the next issuance of the rule, which was

[1] HAPs, even in small quantities, are or may be carcinogenic, mutagenic, teratogenic, neurotoxic, or cause or may cause reproductive dysfunction, or adverse environmental effects. See 42 U.S.C. Section 7412(b)(2).

supposed to be in 2011 (see Attachments B and C). However, despite assurances by EPA to act "with all due speed" the remand was not undertaken in a timely manner. After being sued yet again, and acting under a court-ordered deadline, EPA proposed on August 28, 2019, to amend the 2003 National Emission Standards for Hazardous Air Pollutants (NESHAP) for Taconite Iron Ore Processing. The CAA requires EPA to assess the risk remaining after application of the final air toxics standard. This is called a residual risk assessment (RRA). Based on its RRA of the 2003 NESHAPs, EPA believes that risks from emissions of air toxics from taconite facilities are acceptable and that the existing standards provide an ample margin of safety. EPA also performed a technology review and believes that no further cost-effective developments in controls, practices, or processes are available to achieve further emissions reductions. For these reasons, the EPA is proposing no revisions to the existing standards. Nevertheless, the EPA proposes:

- Removing exemptions for periods of startup, shutdown, and malfunction (SSM) and clarifying that the emissions standards apply at all times;
- Adding electronic reporting of performance test results and compliance reports;
- Adding minor technical corrections and amendments to monitoring and testing requirements that would reduce the compliance burden on industry while continuing to protect the environment; and
- Omitting regulation of EMP under CAA Section 112 because this compound is not a hazardous air pollutant (HAP) pursuant to the CAA.

However, this proposal completely ignores the actions that EPA committed to in the remand. EPA merely proposes to continue to require taconite facilities to control PM as a surrogate for metal HAPs, which is nothing more than what the original standard has done for 15 years past the remand. Since no explanation or justification of the EPA's failure to propose a numerical mercury standard as agreed to in the remand has been provided, this action can only be described as arbitrary and capricious.

While EPA's assessment does mention the EMP remand, its refusal to set standards for EMP appears to be hinged solely on whether these fibers can be defined as "asbestos." Since they are "asbestos-like" rather than fitting the exact description of "asbestos," EPA is now claiming these fibers cannot be regulated because they are not currently listed as HAPs. Again, nothing in the remand required controls only if the fibers fit the definition of "asbestos."

NTAA objects to this proposed rule-making due to the following short-comings in the proposal:

- The proposal makes no mention at all of the EPA's prior commitment to issuing a mercury-specific emission limit;
- The proposal fails to issue an emissions limit for mineral fibers without sufficient reason;
- The Risk Assessment performed by EPA is inadequate with regard to mercury and lead;
- Tribes and state agencies were not adequately consulted in developing this rule while industry representatives had several early opportunities to make their concerns heard;

- EPA ignored the findings of the State of Minnesota's Total Maximum Daily Load rule, its Implementation Plan, and the Reduction Plans submitted by Minnesota taconite facilities in December 2018, that address potential mercury controls;
- EPA did not perform an adequate cost/benefit analysis for controls on mercury;
- EPA ignored the obvious residual risk for mercury demonstrated by fish consumption advisories throughout the nation;
- EPA's residual risk assessment is premature because EPA never issued a MACT standard for mercury;
- EPA's refusal to issue mercury emissions limits directly contradicts the U.S. Supreme Court's decision in National Lime Manufacturers Association v. EPA, 2000;
- EPA's failure to set mercury and EMP emissions limits for SSM conditions;
- EPA's failure to provide due process to Tribes.

Background

According to the Federal Register (FR) item for this proposal, the eight existing taconite mines (six in Minnesota and two in Michigan, although one Michigan plant is currently idled) emitted a total of 760 tons of combined HAPs in 2014. HAPs emitted included metallic HAPs such as mercury, manganese, arsenic, chromium, lead, nickel, beryllium, and cadmium. Other HAPs include formaldehyde, polycyclic organic matter, dioxins, and acid gases. According to the FR, about 99% of the total HAPs emitted at these facilities come from the indurating furnaces.

Although all of these HAPs are pollutants of concern, Tribes have a particular interest in mercury emissions due to the mercury related fish consumption advisories that have been issued in every state in the US.

Mercury and Tribes

Although this proposed action will most immediately impact the Tribes located in the states of Minnesota, Wisconsin, and Michigan, NTAA stresses that mercury is a local, global, and regional pollutant whose emissions impact water bodies across the nation and across the world. Mercury is a known neurotoxin that is particularly harmful to fetuses and young children. It causes damage to the nervous and cardiovascular systems and interferes with normal brain development. It can also cause endocrine disruption and weakened immune systems.[2] The exact amount of mercury that causes these types of damage is unknown. One recent study states, "Similar to lead exposure, there is no evidence from epidemiological studies for a health effects threshold, below which neuro-developmental effects do not occur."[3, 4]

Tribal nations are particularly impacted by mercury due to the amount of fish consumed by Tribal people and to the cultural context that fishing has in many Tribal cultures. EPA itself has recognized that exposure among specific subpopulations, including some Native Americans, may

[2] Dennis, Brady, and Eilperin, Juliet. "EPA to make it harder to tighten mercury rules in the future." The Washington Post, Dec. 28, 2018.

[3] Karagas, M.R.; Choi, A.L.; Oken, E.; Horvat, M.; Schoeny, R.; Kamai, E.; Cowell, W.; Grandjean, P.; Korrick, S. "Evidence on the human health effects of low-level methylmercury exposure." *Environ. Health Perspect* 2012, *120 (6)*, 799-806.

[4] Grandjean, P.; Pichery, C.; Bellanger, M.; Budtz-Jorgensen, E. "Calculation of mercury's effect on neurodevelopment." *Environ. Health Perspect* 2012, *120 (12)*, A452.

be more than twice as great as that experienced by the average US population.[5] Beyond threatening the physical and economic well-being of Tribal members, mercury deposition also threatens Tribal culture and spiritual well-being. Many Tribal cultures are greatly intertwined with natural resources so when these resources are lost, so are the associated cultural practices. Paradoxically, uncontaminated fish is one of the healthiest foods available, since it is high in protein, vitamin D, and omega-3 fatty acids, and is believed to reduce the risk of heart attacks, heart disease, and strokes. Eating fatty fish once or twice a week is recommended for a heart healthy diet.[6] Consumption of mercury in the food chain can also be harmful to many species of wildlife that consume fish, including eagles, bears, otters, mink, and loons, as well as to omnivorous species such as bats, who may consume contaminated aquatic insect nymphs.[7]

The attached comment letter from the NTAA (Attachment C) was submitted in April of 2019 in response to the EPA's Proposed Revised Supplemental Finding and Results for the Mercury Air Toxics Standards rule (Docket ID No. EPA-HQ-OAR-2018-0794) and Results of the Residual Risk and Technology Review (Clean Power Plan Replacement) (Docket ID No. EPQ-HQ-OAR-2018-0794) and serves as an outline of many Tribes' concerns and references the latest scientific data on how mercury impacts those who consume fish regularly. Several Bands and Tribal entities in Minnesota (the Fond du Lac Band of Lake Superior Chippewa, the Leech Lake Band of Ojibwe, and the 1854 Treaty Authority) have also been very involved in speaking out for control of emissions of asbestos-like fibers and have submitted a number of comment letters to the Minnesota Pollution Control Agency (MPCA) on this topic.

With regard to local impacts, the State of Minnesota has issued mercury fish consumption advisories for 1,239 water bodies, including 820 lakes and 419 rivers.[8] Similarly, the State of Wisconsin has safe-eating guidelines for most Wisconsin waters, although 146 waters are singled out for stricter guidelines.[9] The State of Michigan also has advisories that cover all state water bodies. Nationwide, 38 states, including all the Great Lakes states, have issued over 4000 advisories. These cover almost half of the nation's lakes, rivers, and coastlines. The EPA and the Food and Drug Administration have also issued a nationwide advisory for store-bought fish.[10] Many Tribes around the nation have also issued fish consumption advisories, including the Grand Portage Band of Lake Superior Chippewa, the Fond du Lac Band of Lake Superior Chippewa, the Great Lakes Indian Fish and Wildlife Commission, the Saint Regis Mohawk Tribe, the Penobscot Nation, and the Columbia River Inter-Tribal Fish Commission.

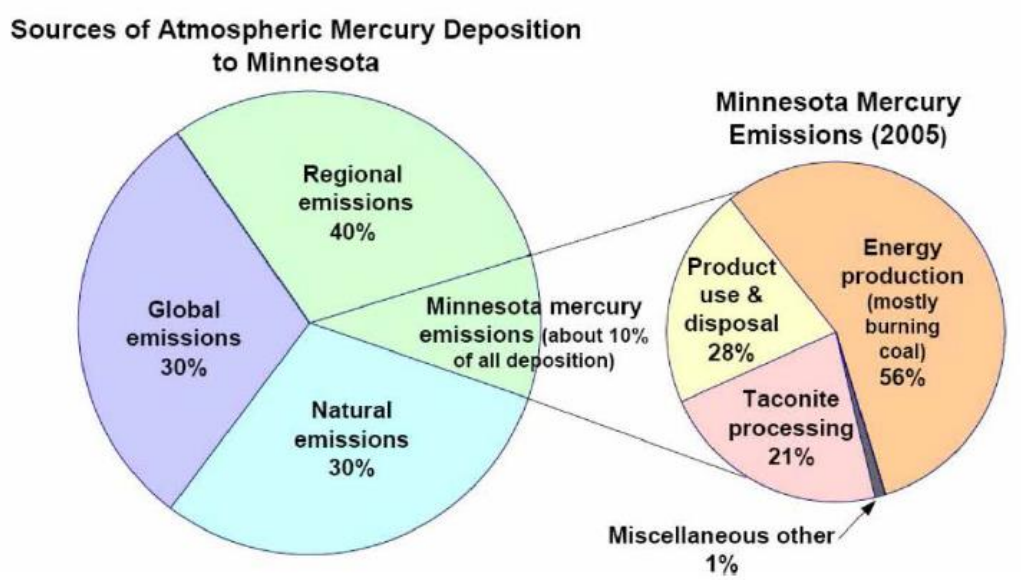
Minnesota's Statewide Mercury Total Maximum Daily Loading (TMDL)

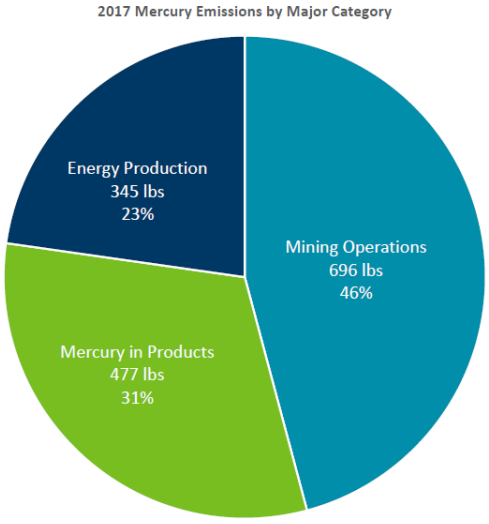
Beyond issuing fish consumption advisories, the State of Minnesota has attempted to eliminate the need for these advisories, as much as may be possible, by issuing a Statewide Mercury TMDL in

[5] 76 Fed. Reg. at 24,978 Citing (US EPA 1997 Mercury Study Report to Congress, Volume IV, page 7-2).
[6] https://www.healthline.com/nutrition/11-health-benefits-of-fish#section 2.
[7] Yates, David E., Evan M. Adams, Sofia E. Angelo, David C. Evers, John Schmerfeld, Marianne S. Moore, Thomas H. Kunz, Timothy Divoll, Samuel T. Edmonds, Christopher Perkins, Robert Taylor, and Nelson J. O'Driscoll. "Mercury in bats from the northeastern United States", Ecotoxicology, 2014, 2013 Nov 23, doi: 10.1007/s10646-013-1150-1.
[8] TMDL, page 4
[9] https://dnr.wi.gov/topic/fishing/consumption/
[10] Michigan Technological University, "Eliminating the Need for Fish Consumption Advisories in the Great Lakes Region – A Policy Brief." Valoree S. Gagnon, Hugh S. Gorman, Emma S .Norman, Contribution No. 50, March 7, 2018.

2007. A TMDL is the calculation of the maximum amount of a pollutant allowed to enter a water body so that the water body will meet and continue to meet water quality standards for that pollutant. The Statewide Mercury TMDL was supplemented by an Implementation Plan (issued in 2009) which explained the emissions reductions required from various sectors in the state. The taconite sector committed to reducing total mercury emissions from 734.8 pounds per year (lb/yr) in 2005 to 210.8 lb/yr in 2025.

As other statewide sectors have moved to reduce their emissions from coal-fired power plants, taconite's portion of total mercury emitted in Minnesota has increased from 21% (2005) to 46% (2017), as shown by the following charts.





In December 2018, taconite facilities submitted mercury reduction plans to the MPCA to demonstrate how they planned to reduce their emissions in order to help the state reach its TMDL goals. Yet these plans do not appear on page 50678 of the FR, where EPA lists the sources of information it considered under its technology review. These documents are the most up-to-date sources on mercury emissions from these facilities and the control technologies that are potentially applicable to this industry. As an example, on page 50678 of the FR EPA lists wet scrubbers or wet walled electrostatic precipitators (WWESPs) as particulate control devices used for indurating furnaces but never mentions whether it did a literature search to see if other controls might be available. If EPA had reviewed the TMDL reports from the taconite industry, they would have seen that other technologies, such as activated carbon injection with halide or bromide added, show promise for controlling mercury at these facilities.[11] EPA has indicated that they did not talk to MPCA regarding the requirements or findings of the TMDL because the TMDL addresses water quality issues and this proposed action is an air quality issue. This is a specious argument. EPA knows full well that mercury pollution is a multimedia concern: it is an air pollutant that deposits into water bodies and undergoes methylation and bioaccumulation; it is generally not a water discharge issue. There is no way to separate the two media when addressing this pollutant. MPCA approached the TMDL with the view that much of the mercury found in state waters comes from deposition from air pollutants and moved ahead accordingly.

Instead of referencing these up-to-date documents, the docket includes outdated ones, such as MACT metals speciation emissions testing performed at one Minnesota mine back in 2003. This is strange, since in a June 4, 2017, teleconference between EPA and industry representatives the taconite representatives stated that only post-NESHAPs test data would be accurate. Additionally, the taconite Regional Haze (RH) plans from 2006 are included in the docket. These plans barely even served to look at ways to reduce RH pollutants (NOx, SO_2, and PM) much less toxics, and are very outdated. Why these outdated reports would be studied rather than the 2018 mercury TMDL reduction plans is puzzling.

EPA's interest in looking at outdated technological reports that do not even address potential mercury controls indicates that EPA had already decided not to require mercury controls but to continue to rely on PM as a surrogate. The NTAA requests an explanation if this is the case and, if so, what factors contributed to this decision. EPA's July 23, 2019, memo to EPA from RTI International states in Section 2.2.1 that, "No developments in pellet induration furnace control technologies or processes were identified through the literature review or in discussions with industry representatives." Again, it seems that EPA had already decided what outcome it wanted to reach, as information on potential mercury controls was available from TMDL documents the MPCA provided. For the reasons stated above, EPA's technology review is incomplete because it fails to even discuss potential mercury controls. The decision not to do so is arbitrary and capricious, especially given the poor quality of EPA's risk analysis.

Please note that the State of Michigan also issued a TMDL for mercury in 2018. The TMDL calls for an 81% reduction in anthropogenic emissions. One of the points the Michigan Department of Environmental Quality makes in the TMDL document is that regional, national and international

[11] https://www.pca.state.mn.us/air/plan-reduce-mercury-releases-2025

efforts will be important in achieving their goals.[12] This further demonstrates that states need the EPA's assistance in requiring mercury controls from these facilities.

Cost/benefit analysis

No actual cost/benefit analysis was performed for this rule, since it is not proposing any new standards. However, costs are brought up in a number of instances. For example, the entire Ample Margin of Safety (AMOS) analysis presents absolutely no health information, does not discuss possible underestimation of health impacts, or address any benefits of reducing pollution, but does look at costs of controls. Additionally, controls to further limit mercury emissions could have co-benefits due to further reductions in other pollutants, which would also have health benefits. EPA's attempts to justify this rule by putting forward costs without looking at any benefits is unbalanced.

Risk Assessment (RA)

- Tribal Cancer Risks

On page 50676 of the FR, EPA admits that this source category has a disproportionate impact on Native populations and populations living below the poverty line. The population exposed to cancer risks greater than 1-in-1-million is roughly 3% for Native Americans, whereas they only make up about 1% of the general population. This risk is three times higher than what should be expected. This information is taken from the docket's Risk and Technology Review – Analysis of Demographic Factors for Populations Living Near Taconite Iron Ore Processing Source Category, Section 4.2 Cancer Risk Demographics. In addition to increased risks for Native Americans, people below the poverty line and people aged 65 years or older are also at higher risk than the general population.

- Emissions Estimates

From page 76 of the RA (Section IV): "The two main sources of information utilized to estimate emissions from taconite iron ore processing facilities are the NEI data submitted for calendar year 2014 and the Petition to Delist." The information contained in the NEI is not as accurate as what could be obtained from the Minnesota and Michigan state agencies. The Petition to Delist is out of date and may underestimate emissions, as the taconite industry was using it to attempt to show that their emissions are minimal. According to the docket, it does not appear that EPA issued an Information Collection Request for this rulemaking. It is unclear why EPA would embark on reviewing a sixteen-year-old rulemaking without attempting to update basic facility emissions information.

- Mercury Deposition

The RA appears to be deficient in a number of ways. First, the Tier 3 level analysis for mercury uses approaches that differ from standard analyses. EPA appears to assume that the mercury particulate that is emitted rises above the atmospheric mixing layer and never comes back down. This is unsupported and unrealistic. Further, EPA appears to have used only one year of meteorological data, when five years is standard (RA, page 12, Table 2.2-1). It is also unclear why 2016 was chosen for its meteorological data (RA, page 12). Second, EPA claims that because "many sources" are involved, they were only able to include one year of meteorological data (RA, page 12). It seems strange that eight sources would be considered "too many." Please explain

[12] https://www.michigan.gov/documents/deq/wrd-statewide-mercury-tmdl_637734_7.pdf

further. Since the indurating furnaces are by far the largest source of toxics from these facilities, it is surprising that the EPA thinks modeling would be overly complicated. Third, a polar receptor grid should not have been used, as this approach is outdated and differs from current guidance. Rather, a nested discrete Cartesian grid is preferred because it provides more consistent coverage and a denser receptor grid. Fourth, EPA assumed that only lakes within 50 km of any taconite facility might experience mercury deposition from these sources and that fishers only eat fish from lakes within 50 km of these mines (page 19, RA). As EPA is aware, Tribal treaty rights are confined to certain locations that are either reserved or ceded to the US government. Treaty rights do not move to allow Tribal members to avoid high levels of mercury in fish tissue. Therefore, EPA erred in this portion of its analysis. It is also unclear if EPA looked at deposition that overlapped for lakes that are within 50 km of multiple mines. While it is believed that a great deal of mercury from local sources is deposited locally,[13] it may be transported farther than 50 km and therefore EPA's analysis needs to cast a wider net.

Appendix 1 of the RA (page 7) states that estimated actual emissions for some sources were obtained from the Petition to Delist. The docket contains a number of Petition to Delist documents, one of which was submitted to EPA in September 2003, by the Empire Iron Mining Partnership and contains data obtained by the taconite industry in support of its arguments that their source sector should not be subject to CAA Section 112 NESHAP program. The Empire Petition to Delist refers to use of the ISCST-3 model, which was replaced by AERMOD in 2008,[14] and also references 1983 meteorological data – in short, this document is very outdated. Yet this document was sent to the EPA again on October 31, 2016, with talking points related to the taconite industry's ongoing efforts to delist their facilities. In reviewing a Petition to Delist submittal from Cleveland Cliffs, EPA points out errors and discrepancies in the submittal. It is unclear whether these were corrected but what is even more unclear is what relevance these outdated documents have on the current regulatory question. If actual emissions are sought, why not get these numbers from one of the state agencies or from actual stack test data?

- Mercury Methylization

The RA failed to consider the unique biochemistry that appears to be taking place in many Midwestern watersheds that leads to higher rates of methylization for mercury than other areas of the nation. For example, the Stoney Brook watershed within the Fond du Lac Reservation in northeastern Minnesota is particularly sensitive to the presence of mercury. Within this watershed, the majority of the original stream course has been extensively ditched, as have many other parts of the St. Louis River watershed. Ditching was done in the early 1900s in an (ultimately unsuccessful) attempt to drain wetlands for farming. Wetlands serve as mercury "sinks" due to decades of atmospheric deposition (and can in fact serve as mercury sources for years to come), and ditched stream levels fluctuate more frequently because the natural hydrology of the area has been disturbed. This constant drying and re-wetting of wetland areas creates the perfect environment for sulfate-reducing bacteria, which produce methyl mercury as a by-product of their

[13] Sunderland, Elsie M.; Driscoll, Charles T. Jr.; Hammitt, James K.; Grandjean, Phillipe; Evans, John S.; Blum, Joel D.; Chen, Celia Y.; Evers, David C.; Jaffe, Daniel A.; Mason, Robert P.; Goho, Shaun; Jacobs, Wendy. "Benefits of Regulating Hazardous Air Pollutants from Coal and Oil-Fired Utilities in the United States." *Environ Science and Technology*. 2016, 50, 2117-2120. DOI: 10.1021/acs.est6b00239

[14] "Sensitivity of two dispersion models (AERMOD and ISCST3) to input parameters for a rural ground-level area source." J Air Waste Manag Assoc. 2008 Oct;58(10):1288-96. Dept of Biological and Agricultural Engineering, Texas A&M University.

chemical process.[15] Methyl mercury readily bio-accumulates up the food chain and leads to fish consumption advisories. In fact, the only water quality parameters exceeded on the Reservation are mercury in water and mercury in fish tissue. High mercury levels in the Stoney Brook watershed are a matter of concern because it serves as a major tributary to the St. Louis River, which is a major fishery in the area.

- Failure to Consider Cumulative Impacts

From page 50665 of the FR: "The EPA notes that it has not considered certain health information to date in making residual risk determinations. At this time, we do not attempt to quantify the HAP risk that may be associated with emissions from other facilities that do not include the source category under review, mobile source emissions, natural source emissions, persistent environmental pollution, or atmospheric transformation in the vicinity of the sources in the category." The Science Advisory Board stated in May of 2010 that, "RTR assessments will be most useful to decision makers and communities if results are presented in the broader context of aggregate and cumulative risks, including background concentrations and contributions from other sources in the area." Yet the EPA believes that mercury emissions from taconite facilities can be treated as though they exist in a vacuum and that the presence of an already excessive level of this toxic has not already led to public health concerns. On page 30 of Appendix 6, EPA states, "The annual average concentration equals the average of the 365 daily estimate. The simulation runs for 50 years, and the concentrations at the end of year 50 are used to estimate human exposures (i.e., we do not use earlier or time-weighted concentrations for PB-HAPs in soils and fish over the duration of the facility operation to estimate human exposures)." While this may be an acceptable approach for non-bioaccumulate or non-persistent toxics, it is unacceptable for mercury, dioxins, or PCBs. The RA does not explain how this decision was reached or why current bioaccumulated mercury levels were not considered in predicting the future health impacts of a bioaccumulative toxin. No basis or reference to best practices or modeling protocol is provided. When the Fond du Lac Band specifically reached out to EPA on this question, they were referred to the Benzene NESHAP (54 FR 38044, September 14, 1989), however more detail should have been provided in the RA for easier review and comment.

The NTAA has reviewed the Benzene NESHAPs and has the following comments. First, on page 38059, EPA admits, "As part of this perspective, EPA agrees that exposures to background concentrations and multiple sources of a pollutant may be considered to the extent that it is practical and reasonable to do so." Second, on page 38061, "The EPA believes that comparison of estimated MIR levels to natural background risk levels is appropriate to help characterize the overall magnitude of the risk that remains after making the acceptable risk decision. However, EPA also agrees that comparison of acceptable risk should not be associated with levels in polluted urban air. With respect to considering other sources of risk from benzene exposure and determining the acceptable risk level for all exposures to benzene, EPA considers this inappropriate because only the risks associated with the emissions under consideration are relevant to the regulation being established and, consequently, the decision being made." While the NTAA appreciates EPA's

[15] Minnesota Department of Natural Resources website.
https://www.dnr.state.mn.us/lands_minerals/dnr_so4_research.html

desire to hold this source sector accountable only for their own emissions, we feel the approach that was taken was inappropriate due to the cumulative nature of mercury and its persistence in the environment. Benzene is a different pollutant from mercury because it can break down in a few days in air and does not bioaccumulate in plants or animals.[16] EPA's willingness to compare MIR levels to natural background risk levels is indicative of its recognition that some level of comparison to existing risks is acceptable. The NTAA also notes that this policy precedes the 1990 Clean Air Act Amendments and is now 30 years old.

In the November 4, 2013 FR, EPA examines the benzene method in, "National Emission Standards for Hazardous Air Pollutants Residual Risk and Technology Review for Flexible Polyurethane Foam Production." On page 66111, EPA discusses the importance of "other health measures and factors." Some of these include, "…weight of scientific evidence for human health effects, other quantified or unquantified health effects, effects due to co-location of facilities, and co-emission of pollutants." EPA admits that, "In some cases, these health measures and factors taken together may provide a more realistic description of the magnitude of risk in the exposed population than that provided by maximum individual lifetime cancer risk alone." While the EPA may not have felt free to include these "other health measures and factors" in the RA, they most definitely should have been (but were not) analyzed in the AMOS.

Lead

The lead analysis in the RA is also flawed for a number of reasons. First, EPA completely ignored the cancer multipathway analysis for this pollutant. Second, EPA misused the National Ambient Air Quality Standards (NAAQS) by using annual emissions to substitute for three-month emissions (page 7 of RA). The RA (page 21) states that maximum annual lead concentrations (0.003 ug/m^3) were compared to the primary NAAQS for lead (0.15 ug/m^3 on a rolling three month average). This approach is not appropriate, since a three-month average could be higher than an annual one under different meteorological conditions. Further, EPA assumes that if concentrations are below NAAQS then there is a low potential for multipollutant pathways; but there is no safe level for lead. This issue is not adequately addressed.

Outdated or Missing Documents

From EPA's website, the Background Information for Proposed Standards is dated December 2002. Was no updated information considered? The RIA is also from that time period. The only real economic analysis is in the FR on page 50684. The EPA failed to look at benefits associated with reducing mercury emissions from these sources because they are not proposing any reductions, despite the clear need to reduce mercury pollution. This is a no-action alternative and the cost is continuing fish advisories or mercury damage to fetal brains. EPA is coming at this backward and making a decision and then doing a cost/benefit analysis that supports that decision, rather than fully looking at alternatives.

The EMP section of this letter refers to a document that is listed in the docket but does not actually appear there. Please also be aware that a document titled "imagine LiFe without iron" is also listed in the docket but also is not linked to the appropriate icon.

[16] https://archive.epa.gov/region5/teach/web/pdf/benz_summary.pdf

National Lime Association, U.S. Supreme Court decision

EPA's refusal to set a mercury standard flagrantly disregards the U.S. Supreme Court's decision in National Lime Association (*NLA*) v. EPA (2000); the Sierra Club also challenged the EPA's hazardous air pollutant emission regulations in this action. The decision rendered in this case "finds the Agency's failure to set standards for hydrogen chloride, mercury, and total hydrocarbons contrary to the Clean Air Act's plan language." The Court also "direct(s) EPA to consider the health impacts of potentially stricter standards for hazardous metals" and "rejects(s) its argument that EPAs use of particulate matter as a surrogate for non-volatile metal hazardous air pollutants violates the Clean Air Act and is arbitrary and capricious." In *NLA*, EPA found no cement plants using controls for mercury, similar to taconite facilities which do not currently use add-on controls for their mercury emissions. However, the Court agreed with the Sierra Club that nothing in the statute suggested that EPA may set emission levels only for those listed HAPs already being controlled with technology. Rather, the statute directs EPA to "promulgate regulations establishing emission standards for each category or sub-category of major sources…of hazardous air pollutants listed for regulation." The Supreme Court calls this a "clear statutory obligation to set emission standards for each listed HAP. Although *NLA* permits the Agency to look at technological controls to set emission standards (see 167 F.3d at 665), it does not say that EPA may avoid setting standards for HAPs not controlled with technology. Further, the Court agreed with the Sierra Club's assertion that the EPA failed to take into account any non-air quality health effects. Similarly, in the taconite action EPA does not quantify any correlation between HAP metals and PM, meaning that EPA cannot guarantee that PM is an appropriate surrogate for mercury.

Lack of Due Process

Recent comments by a coalition of environmental groups on EPA's Proposed Rule, National Emission Standards for Hazardous Air Pollutants: Integrated Iron and Steel Manufacturing Facilities Residual Risk and Technology Review, 84 Fed. Reg. 42, 704 (Aug. 16, 2019) raise some points that are nearly identical to items of concern in this action. Similar to the taconite source category, EPA first promulgated emission standards for air toxics for the Iron and Steel source category in 2003, under 42 U.S.C. Section 7412(d). However, environmental groups believed that these standards were flawed and filed petitions for reconsideration, just as in the taconite case. In 2009, EPA sought and obtained a voluntary remand of these standards, again just as it did in the taconite case. Similar to the taconite example, EPA has not responded to the remand or fixed any of the flaws in the rule even though several years have passed. In both cases, EPA clearly only performed the RTR because it was under court order to do so.

In neither case did EPA seek input from any entity other than the regulated industry, specifically individual taconite plants and the American Iron and Steel Institute (AISI). The taconite RTR docket lists several conference calls and site visits with industry but gives no indication of conversations or visits with any other stakeholder or regulator. Similar to commenter's concerns in the Iron and Steel case, "It is unclear if or when EPA determined to contact; to what extent the agency shared information or sought policy advice from AISI; or whether the agency contacted any independent health scientists or groups not associated with iron and steel companies. There is a substantial email chain in the docket, but it is unclear if it is complete or why EPA communicated only with the AISI regarding this issue….It is clear that EPA provided a one-sided early opportunity for AISI to influence EPA's rulemaking proposal, and even seemed to suggest that were attempting to rely on AISI's work in the absence of EPA staff or contractors." Although

these statements were taken from the comments made regarding the Iron and Steel case, they very accurately describe what can be seen from reading the docket for the taconite rulemaking. It is obvious that industry's viewpoints have been shared with EPA over a considerable period of time and at critical junctures in the rulemaking process, whereas commenters have only 45 days to review and offer comments on the materials. It is also much less likely that commenters' data, arguments, and viewpoints will be considered and incorporated when the EPA is under a court-ordered deadline that the agency itself has made necessary. Because of these actions by EPA, due process for Tribes has been neglected.

Startup, shutdown, and malfunction (SSM)

While NTAA supports EPA's proposal to remove exemptions from SSM modes of operation, limits for EMP, mercury, and other toxics still need to be set for these modes of operation. Otherwise this is not a practically enforceable condition. See FR from Friday, June 12, 2015 – "State Implementation Plans: Response to Petition for Rulemaking; Restatement and Update of EPA's SSM Policy Applicable to SIPs; Findings of Substantial Inadequacy; and SIP Calls to Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown and Malfunction," where it is stated, "By definition, an emission limitation can take various forms or a combination of forms, but in order to be permissible in a SIP it must be applicable to the source continuously, i.e. cannot include periods during which emissions from the source are legally or functionally exempt from regulation." The FR also states, "Similarly, SIPs may, rather than exempt emissions during SSM events, include emission limitations that subject those emissions to alternative numerical limitations or other technological control requirements or work practice requirements during startup and shutdown events, so long as those components of the emission limitations meet applicable CAA requirements." Based on these statements, NTAA believes that EPA must set specific emission limits for EMP, mercury, and other toxics during SSM modes of operation.

Inconsistency

The EPA's decision to simply ignore the requirements of the remand is inconsistent with their willingness to set a mercury emissions standard in the proposed NESHAP: Integrated Iron and Steel Manufacturing Facilities Residual Risk and Technology Review, published August 16, 2019. This proposal does not use PM as a surrogate for mercury (FR page 42711).

Environmental Justice

The docket contains a report titled "Risk and Technology Review – Analysis of Demographic Factors For Populations Living Near Taconite Iron Ore Processing Source Category" prepared by SC&A Incorporated out of North Carolina. This report makes no mention of the significant health challenges that Native Americans face that could be exacerbated by exposure to toxic emissions (i.e., higher rates of asthma and diabetes) nor does it acknowledge that Tribes in the area have treaty rights and consume higher levels of fish than the general population. Further, this report does not acknowledge that one of every ten babies on the North Shore of Lake Superior is born with elevated blood mercury.[17]

[17] McCann, Patricia, "Mercury Levels in Blood from Newborns in the Lake Superior Basin", Minnesota Dept of Health – Division of Environmental Health, GLNPO ID-2007-942, November 30, 2011.

Table 5 of the RA lists all Hazard Indices as 0. However, a Supplemental Air Emissions Risk Analysis – Plant Site written by NorthMet Mining for their proposed PolyMet copper/nickel mine in northern Minnesota estimated that the project, with estimated mercury emissions of 4 pounds per year, would result in a modeled increase in HQ in nearby water bodies of 0.08-0.6 for subsistence or tribal anglers (Table 10-3). EPA should reach out to the MPCA to find out how this analysis was conducted. Given the PolyMet analysis, it is unclear why the EPA does not think that reducing the hundreds of pounds of mercury emitted by facilities in this region is worthwhile.[18]

Further, as shown on page 7 of this letter, the cancer risk for Native Americans is three times greater than for the general population. None of these issues have been identified by EPA as Environmental Justice issues, but they certainly should have been. Executive Order No. 12898 established the Environmental Justice Doctrine, amid growing concern that minority populations, low-income populations, and Indian Tribes bear a disproportionate amount of adverse health and environmental effects. Executive Order No. 12898 mandates that: "[E]ach federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."[19] Executive Order No. 12898 expressly confirms that its provisions apply to federal programs, policies, and activities involving Native Americans.[20] EPA's failure to adequately consider the benefits of mercury reduction and the co-benefits of the reduction of other pollutants will fall mostly heavily on disadvantaged citizens of the U.S.

TRIM.FaTE

EPA's use of TRIM.FaTE is inadequate because it does not look at large lakes (more than 100,000 acres), very large watersheds, rivers, or bays. This is arbitrary and capricious under §7607(d)(9). Even if TRIM.FaTE does not perform well with these types of water bodies, then EPA must find another way to assess deposition of mercury, especially since many of these water bodies already have fish consumption advisories. Further, EPA cannot simply dismiss fishers who eat fish from "[v]ery large lakes and bays," such as the Great Lakes. Many Tribal members eat fish from these Lakes and all eight of the taconite mines are located very close to Lake Superior. Due to these inadequacies, EPA cannot claim that the current NESHAP provides an "ample margin of safety."

Further, this exclusion of bays, rivers, and large lakes violates the plain language of the CAA. For example, §112(m) of the CAA addresses "Atmospheric deposition to Great Lakes and coastal waters," to monitor toxic depositions to these waters, and to report the results biennially to Congress. EPA's Great Lakes Restoration Initiative is another example of our government's commitment to these Lakes.

[18] Polymet Mining, NorthMet Project, Supplemental Air Emissions Risk Analysis (AERA) – Plant Site. https://www.leg.state.mn.us/docs/2015/other/150681/PFEISref_1/Barr%202013j.pdf

[19] Exec. Order No. 12,898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 59 Fed. Reg. 7629, (1994) (Section 1-101) (emphasis added).

[20] 59 Fed. Reg. at 7,632; Similarly, guidance released by the Council on Environmental Quality expressly incorporates Indian tribes into the definition of low-income populations and minority populations. See Environmental Justice: Guidance Under the National Environmental Policy Act, December 10, 1997.

The improper exclusion of riverine areas was discussed during a Tribal consultation call with EPA on November 4, 2019. The EPA's point of view is that lakes are the "worst case scenario," because they experience less turnover and less dilution than riverine systems and that rivers essentially "carry away" pollution. This is the exact opposite of the Fond du Lac Band's situation where ditched areas and wetlands experience an increased rate of methylation (see page 8). Further, the upstream location of the state's mines relative to the Fond du Lac Reservation means that systems such as the St. Louis River carry mine-polluted waters straight onto the Reservation. The NTAA also objects to the idea of pollution being carried away to another location. Mercury in the environment does not disappear, it just becomes someone else's problem and cycles in the atmosphere. It can travel globally to either impact people who do not enjoy the financial benefits of the mines, or can come right back to where it originated.

TRIM.FaTE is also inadequate because it does not include the level of methylmercury currently in fish tissue but rather starts at a zero concentration. This is unrealistic and, frankly, useless. If fish were at a zero concentration air agencies would be much less concerned about additional mercury. The bioaccumulative impacts of mercury are the danger and they cannot be calculated if EPA does not allow the analysis to actually look at bioaccumulation. Models such as AERMOD coupled with Minnesota Mercury Risk Estimation Model (MMREM) are much more useful. Contrastingly, EPA used the Regional Modeling System for Aerosols and Deposition (REMSAD) model in 2008 (along with the Community Multiscale Air Quality (CMAQ) model) for its "Model-Based Analysis and Tracking of Airborne Mercury Emissions to Assist in Watershed Planning," and in the State of Michigan's TMDL work. Perhaps this approach should have been utilized in this proposal. EPA did not discuss the use of other models or compare them to TRIM.FaTE in any of the materials we reviewed.

Use of the census block centroids along with TRIM.FaTE violates the CAA's requirement to protect the "most-exposed individual" per §7412(f)(2). In studying cancer risks, the EPA estimated impacts at the centroid of census blocks within 50 kilometers of each facility. This approach is incorrect because there is no evidence that the centroid is where maximum impacts are expected to be encountered due to its geographic generalization. This analysis must be redone using the maximum individual risk. This failure renders the analysis arbitrary and capricious.

Failure to Fulfill the Requirements of Section 112 of the CAA

Regardless of the findings of the RA, EPA is required to set emission standards for both new and existing sources for each source category listed under CAA Section 112(c). Section 112(d)(2) of the CAA states, "The Administrator shall promulgate regulations establishing emission standards for each category or subcategory of major sources…of HAPs listed for regulation pursuant to subsection (c) of this section…" Section 112(d)(2) goes on to state, "Emissions standards promulgated under this subsection and applicable to new and existing sources of HAPs shall require the maximum degree of reduction in emissions of the HAPs subject to this section…that the Administrator, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for new or existing sources…through application of measure, processes, methods, systems or techniques including, but not limited to, measures which-

- (A) reduce the volume of, or eliminate emissions of, such pollutants through process changes, substitution of materials or other modifications,
- (B) enclose systems or processes to eliminate emissions;
- (C) collect, capture or treat such pollutants when released from a process, stack, storage or fugitive emission point,
- (D) are design equipment, work practices, or operational standards (including requirements for operator training or certification) as provided in subsection (H) of this section, or
- (E) are a combination of the above."

Subsection 112(d)(3) goes on to discuss emission standards for new sources and then discuss existing sources (which includes all 8 mines) by stating, "Emission standards promulgated under this subsection for existing sources in a category or subcategory may be less stringent than standards for new sources…but shall not be less stringent, and may be more stringent than-…

- (B) the average emission limitation achieved by the best performing 5 sources (for which the Administrator has or could reasonably obtain emission information) in the category or subcategory for categories or subcategories with fewer than 30 sources."

EPA has not completed the requirements of this section, as it has not set emission standards for HAPs from existing sources in this source category. There is no discretionary language in this citation and no reference to the results of a risk assessment.

Keeping in mind the requirements of Section 112(d), Section 112(f)(1) directs EPA to "investigate and report, after consultation with the Surgeon General and after opportunity for public comment, to Congress on - "(A) methods of calculating the risk to public health remaining, or likely to remain, from sources subject to regulation under this section *after the application of standards under subsection (d) of this section* [italics added]." Again, before EPA even starts to carry out the requirements of Section 112(f), it must first carry out the requirements of Section 112(d)(2).

Section 112(f)(1) continues with part (B)- "the public health significance of such estimated remaining risk and the technologically and commercially available methods and costs of reducing such risks; (C) the actual health effects with respect to persons living in the vicinity of sources, any available epidemiological or other health studies, *risks presented by background concentrations of hazardous air pollutants* [italics added], any uncertainties in risk assessment methodology or other health assessment technique, and any negative health or environmental consequences to the community of efforts to reduce such risks; and (D) recommendations as to legislation regarding such remaining risks." A report was submitted to Congress in March, 1999, (*Residual Risk Report to Congress* – EPA-453/R-99-001) but Congress has not acted in response. Therefore, EPA's obligation to analyze and address residual risk under Section 112(f)(2) has been triggered.

Further, Section 112(f)(2)(A) states that, "If Congress does not act on any recommendation submitted under paragraph (1), the Administrator shall, within 8 years after promulgation of standards…pursuant to subsection (d)…promulgate standards for such category or subcategory if promulgation of such standards is required in order to provide an ample margin of safety to protect public health…or to prevent, taking into consideration costs, energy, safety, and other relevant

factors, an adverse environmental effect." Note that costs, energy, safety and other relevant factors are only to be considered in setting standards to protect the environment, not public health. EPA should explain why it did not do further analysis for plants or animals that experience high levels of mercury, as noted on page 4 of this letter, as this would presumably fall under the purview of "setting standards to protect the environment." Also note that we have highlighted in this letter the inadequacy of EPA's AMOS analysis.

Section 112(f)(2)(A) further states "If standards promulgated pursuant to subsection (d) of this section and applicable to a category or subcategory of sources emitting a pollutant (or pollutants) classified as a known, probable or possible human carcinogen do not reduce lifetime excess cancer risks to the individual most exposed to emissions from a source in the category or subcategory to less than one in one million, the Administrator shall promulgate standards under this subsection for such source category." Several instances can be found in the RA where risks greater than one in one million can be found:

- On page 5, "The results of the chronic inhalation cancer risk assessment based on actual emissions from the Taconite Iron Ore Processing source category indicate that the maximum lifetime individual cancer risk posed by the 8 facilities could be as high as 2-in-1-million, with arsenic compounds, nickel compounds and beryllium compounds from fugitive dust emissions control plan sources as the major contributors to the risk." Also on page 5, "…38,000 people are estimated to have cancer risks above 1-in-1-million from HAP emitted from the facilities in this source category."
- From page 8, these risks could be as high as 6-in-1-million for allowable emissions from these sources and, "Based on allowable emission rates for this source category, 43,000 people are estimated to have cancer risks above 1-in-1-million…"

Clearly, EPA should have acted to control HAP emissions from this source category based on this analysis.

To summarize, Section 112(d) requires EPA to first set emission limits for toxics from the source categories listed under Section 112(c). This is supported by the Supreme Court's decision in *NLM* (see page 10). EPA failed to set emission limits for mercury both in 2003 and in the sixteen years after. EPA would like us to think that they are now moving on the Section 112(f) which directs them to "assess the risk to public health remaining *after the implementation of the NESHAP* [italics added]." However, EPA never set a NESHAP but, rather, improperly used PM as a surrogate for mercury. Section 112(f) further states, "If the residual risk for a source category does not protect public health with 'an ample margin of safety,' the EPA must promulgate health-based standards for that source category to further reduce HAP emissions." Nowhere does this state that cumulative impacts from other source categories cannot be used, it only asks EPA to look at risks from the source category as, presumably, risks from other source categories would be addressed through rules specifically addressing those source categories. Also see the NTAA's comments below about the inadequacy of EPA's AMOS analysis. Taken together, these points demonstrate why this entire analysis and rulemaking are baseless.

AERMOD's Appendix W, which provides modeling guidance to regulatory agencies, supports the NTAA's argument. The Introduction to Appendix W states, "Section 112 of the Clean Air Act (CAA) directs the U.S. Environmental Protection Agency (EPA) to assess the risk remaining (i.e.,

residual risk) from emissions of hazardous air pollutant (HAPs) following the implementation of maximum achievable control technology (MACT) standards for emission sources." Again, this supports our statement that EPA was premature in conducting a risk analysis since it has never issued a MACT standard for mercury.

Ample Margin of Safety Analysis

From page 50677 of the FR, EPA discusses its attempts to insure that an ample margin of safety exists. However, EPA is operating under faulty assumptions. EPA has erroneously assumed that the chronic non-cancer HI for mercury is below one, which NTAA strongly disputes. While EPA looked at the cost effectiveness of installing a WWESP after the existing wet scrubbers, this is not a safety analysis, this is a cost analysis.

A July 23, 2019, memo to EPA from RTI International, purports to conduct an analysis demonstrating that this action provides an ample margin of safety to the public. However, the only time the word "safety" is used is in the subject line of this memo. There is no mention whatsoever of the impacts of these pollutants on human health or the environment. Any decision based on this two-page embarrassment must be deemed arbitrary and capricious. The EPA knows this approach is unacceptable. From page 50665 of the FR: "EPA believes the relative weight of the many factors that can be considered in selecting an ample margin of safety can only be determined for each specific source category," and, "We also consider the uncertainties associated with the various risk analyses, as discussed earlier in this preamble, in our determinations of acceptability and ample margin of safety." These statements show that EPA is fully aware that an AMOS should consider factors other than cost. In this analysis, uncertainties would have included data accuracy, uncertainties in modeling, as well as uncertainties in how much mercury is enough to cause health impacts. There are also uncertainties in modeling mercury's movement through the atmosphere, chemical reactions, locations and rates of deposition, and rates of re-emission.

Likewise, Section 4.2.2 Multipathway exposure modeling, from the RA, details the following uncertainties in TRIM.FaTE in modeling persistent, bioaccumulative chemicals:

- simplication of gaseous and particulate deposition from air;
- biogenic cycling in the aquatic environment;
- mixing processes in air, water, and sediment;
- suspended and benthic sediment dynamics in lakes;
- biotic processes such as growth, reproduction, and predation.

Similarly, RA Table 5-1 gives a Summary of General Uncertainties Associated with Risk and Technology Review Risk Assessments. None of the items on the table are mentioned in the AMOS.

EMP

EPA refuses to set emission limits for EMP, even though it committed to doing so in its 2004 remand. EPA's justification is that EMP are not classified as asbestos nor are they included on the EPA's list of HAPs. However, there is no requirement in the remand for EMP to be listed as a HAP for it to be controlled - the remand simply says EPA will set an emission standard. EPA claims (page 50683) that fibers are only emitted from the Peter Mitchell Mine/North Shore Mine. Just because no other mines have encountered EMP does not mean they will not in the future, as

they mine new areas, or that future mines will not. Indeed, the proposed NorthMet mine in Minnesota is located only a matter of meters from the Duluth Complex, where fibers could be encountered. Just because EMP are not classified as asbestos nor currently listed as HAPs does not mean that they do not cause health problems. This argument ignores the significantly higher rates of mesothelioma on Minnesota's Iron Range, which has been studied by the University of Minnesota (U of MN) and the Minnesota Department of Health (MDH).[21] This study found a 3% increase in the risk of contracting mesothelioma for each year of employment in the taconite industry. The same study states, "To summarize the mesothelioma findings and related factual information, taconite workers in Minnesota have an established risk for mesothelioma related to cumulative EMP exposure. Because of the type of counting method (NIOSH 7400), the type of EMP (asbestiform or non-asbestiform) accounting for this association has not been determined with certainty. It is also uncertain as to whether the EMPs over 5 um in length are the best metric in this situation, given that the predominant EMP exposure is to minerals 1-3 u, in length." And, "However, because of the lack of quantitative data on non-asbestiform amphibole EMP, there remains uncertainty surrounding the role of this exposure and the association with mesothelioma. There is additional uncertainty created by the lack of quantitative data involving historical exposure to asbestiform EMPs from commercial asbestos use."[21] This report establishes the uncertainties of whether EMPs can be implicated in the higher rates of mesothelioma among taconite workers. NTAA points this out to show why the EPA should act conservatively by setting EMP emissions limits at these facilities.

The docket includes a memo from Ann Foss of the MPCA explaining why the MPCA was proposing to change how it regulates EMP. While the MPCA is making changes in the air permit issued to Northshore Mining, it will still continue to regulate EMP, just with newer, statistically driven methods.

The docket includes a report on EMP written by the AISI, dated February 25, 2019. If this is the only document EPA used then their analysis is biased and they are uninformed. There is no indication that the Minnesota Department of Health had any input to this report. Emails between EPA and MPCA staff found in the docket (Regarding Northshore Mining Company MN Fibers) indicate that the MPCA does not take the same view as EPA that the only issue that EPA considered is whether these fibers can be identified as asbestos. The MPCA states, "We argue that scientific consensus is lacking on the public health implications for mineral fibers meeting the more inclusive definitions of an elongate mineral particle (EMP) which can often be as broad as any respirable mineral particles found in the ambient air in Northshore, so were taking an approach of precaution in our air permitting approach to the facility."

The docket lists a document called "Risk assessment due to environmental exposures to fibrous particulate associated with taconite ore," but the actual document appears to be missing. No review of this document is possible.

Technology Review

[21] Jeffrey H. Mandel; Odo, Nnaemeka U. December 15, 2018. "Mesothelioma and other lung disease in taconite miners; the uncertain role of non-asbestiform EMP." Toxicology and Applied Pharmacology, Volume 361, Pages 107-112.

The docket contains a memorandum to EPA from RTI International, dated July 23, 2019, addressing Draft Technology Review for the Taconite Iron Ore Processing Source Category. Section 2.2.1 of this memo, entitled Air Pollution Control Technology states that no new technologies have been identified with regard to mercury emissions. NTAA believes that the activated carbon with halide or bromide injection technology, identified in the December 2018 TMDL submittals from taconite facilities to the MPCA would fit the definition of "any improvements to add-on control technology or other equipment (that were identified and considered during development of the original MACT standards) that could result in significant additional emissions reductions." RTI does not list these reduction plans among the materials that it included in its review nor does it mention conversations with MPCA staff. The last sentence in the second paragraph of this section admits, "This study did not include information on HAP reductions or cost-effectiveness."

Trust Responsibility

Under the tenets of federal trust responsibility, the EPA has a heightened obligation to "protect the environmental interests of Indian tribes when carrying out its responsibilities that may affect the reservations."[22] The Trust Responsibility stems from the United States' "unique legal relationship with Tribal Governments based on the Constitution, treaties, statutes, Executive Orders, and court decisions."[23] Specifically, this well established doctrine imposes a legal duty on federal agencies including EPA to protect Indian Tribes' lands, waters, natural resources, and rights of self-government when carrying out its obligations imposed by treaties, statutes, regulations and executive orders.[24] Furthermore, courts have consistently held that the Trust Responsibility requires federal agencies to adhere to the same standard imposed on fiduciaries, the highest standard of care imposed by law, to ensure proper protection of impacted Tribe's rights. Therefore, it is unthinkable that any risk and technology review would not account for the full health and cultural impacts of mercury emissions to Tribes.

Corrective Action

On page 50683, EPA seeks comment on whether it would be appropriate to lengthen the time frame that industry has to initiate corrective action when a bag leak is detected in a baghouse. The time limit is currently one hour. NTAA firmly believes that industry must be held to this one hour

[22] Memorandum from Stephen Johnson, EPA administrator to all USEPA employees available at http://www.epa.gov/tp/pdf/reaffirmation-indian-policy.pdf (September 26, 2005) (citing page 3 of original policy).
[23] See id. at 2.
[24] See, e.g., Fellows v. Blacksmith, 60 U.S. (19 How.) 366 (1857); United States v. Kagama, 118 U.S. 375 (1886); Choctaw Nation v. United States, 119 U.S. 1 (1886); Cherokee Nation v. Southern Kansas R. Co., 135 U.S. 641, 654-55 (1890); Cherokee Nation v. Hitchcock, 187 U.S. 294, 300-05 (1902); Lone Wolf v. Hitchcock, 187 U.S. 553 (1903); Tiger v. Western Investment Co., 221 U.S. 286 (1911); Heckman v. United States, 224 U.S. 413 (1912); Choate v. Trapp, 224 U.S. 665, 675 (1912); United States v. Sandoval, 231 U.S. 28, 45-46 (1913); United States v. Pelican, 232 U.S. 442 (1914); United States v. Nice, 241 U.S. 591 (1916); Lane v. Pueblo of Santa Rosa, 249 U.S. 110 (1919); United States v. Payne, 264 U.S. 446 (1924); United States v. Candelaria, 271 U.S. 432 (1926); United States v. Creek Nation, 295 U.S. 103 (1935); Shoshone Tribe of Indians v. United States, 299 U.S. 476 (1937); United States v. Santa Fe Pac. R. Co., 314 U.S. 339 (1941); Tulee v. State of Washington, 315 U.S. 681 (1942); Seminole Nation v. United States, 316 U.S. 286, 296-97 (1942); United States v. Alcoa Band of Tillamooks, 329 U.S. 40, 47 (1946); United States v. Mason, 412 U.S. 391 (1973); Morton v. Ruiz, 415 U.S. 199, 236 (1974); Morton v. Mancari, 417 U.S. 535, 552-55 (1974); United States v. Sioux Nation, 448 U.S. 371, 408 (1980); Nevada v. United States, 463 U.S. 110, 142 (1983); County of Oneida v. Oneida Indian Nation, 470 U.S. 226, 247 (1985).

requirement, due to the toxicity of these emissions and due to industry's poor performance in the past.[25]

Performance Run Times

In section IV.C.3 of the FR, EPA proposes to reduce emissions performance test run times from 2 hours to 1 hour and remove the "unnecessary" requirement to conduct quarterly internal visual inspections of the baghouses that are equipped with a bag leak detection system. Section V estimates that these amendments and clarifications to the rule will result in a reduction of current costs of around $190,000 per year. No analysis of the environmental and health costs that may result in reduced performance are given. These results come from a memo from RTI International to David Putney of EPA (dated August 22, 2019).

Continuous Emissions Monitors (CEMs)

NTAA recommends that when EPA promulgates emissions limits for mercury they should also require taconite facilities to install CEMs to ensure that these limits are met. CEMs for mercury have been installed at coal-fired EGUs and have proven to be reliable.

Disproportionate Risk to Children

Section VIII(H) Exec Order 13045 of the FR is invalid because it incorrectly states that the environmental health or safety risks addressed by this action do not present a disproportionate risk to children. As stated in the "Mercury and Tribes" section of this letter, fetuses and young children are at the greatest risk from high mercury levels. Also, see the study finding that 10% of babies born on the Northshore of Lake Superior have elevated mercury levels.[15]

Conclusions

EPA must re-open this rule, re-do its residual risk and technology assessments, re-public notice and re-issue the rule correctly, with MACT standards for toxics (not using PM as a surrogate) and EMP. The NTAA understands that the agency is under a court-ordered deadline, but our belief is that at least one entity will file suit over this rule and it will be remanded anyway. Minnesota taconite plants have until 2025 to comply with the requirements of the Minnesota TMDL, so there is still time to coordinate these two rulemakings if work is started immediately. EPA must set numerical emissions limits for mercury and EMP, as promised in the remand from 2004. These limits must be protective of human health and the environment and take into account existing mercury levels in fish tissue and emissions from other source categories. An adequate AMOS must be performed to properly insure that citizens of the US are not exposed to unhealthy levels of HAPs. EPA must require CEMs at all taconite facilities to continuously measure emissions of mercury.

The NTAA appreciates this opportunity to comment. If you have any questions or require clarification from the NTAA, please do not hesitate to contact the NTAA's Project Director Andy Bessler at 928-523-0526 or andy.bessler@nau.edu.

On Behalf of the NTAA Executive Committee,

[25] Minneapolis Star Tribune, April 19, 2019, United Taconite to pay $500,000 for air pollution on Minnesota's Iron Range. Jennifer Bjorhus and Brandon Stahl

www.ntaatribalair.org
928.523.0526 office
928.523.1266 fax

National Tribal Air Association
P.O. Box 15004
Flagstaff, AZ 86011-5004

Wilfred J. Nabahe
Chairman
National Tribal Air Association

Cc: Senator Tina Smith (DC office) 720 Hart Senate Office Bldg, Washington, DC 20510
Ravyn Gibbs (Sen. Smith's office in St Paul) 60 Plato Blvd Suite #220, St. Paul, MN 55107