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Hon. Michael S. Regan  
Administrator  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue NW  
Washington, DC 20004

**Attention: National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing Amendments (RIN 2060-AV58, Docket ID EPA-HQ-OAR-2017-0664).**

Dear Administrator Regan:

I write to comment on the U.S. Environmental Protection Agency's NPRM "National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing Amendments" (RIN 2060-AV58), pursuant to the notice-and-comment process outlined in and protected by 5 U.S.C. § 553(c). The proposed rule is arbitrary and capricious, and the Agency cannot go through with it. The rule fails to accurately account for the impacts of taconite iron ore processing on Americans, arbitrarily choosing a radius of analysis solely based on obtaining desired demographic results that could be used as an excuse for rulemaking. The proposal would also punish regulated entities that choose to comply with the new regulations by way of the kinds of investments and mix of technologies best suited to emissions averaging, setting a more stringent standard for such firms without reason and without reasoning for the stringency level selected. Finally, the Agency ignores national security concerns entirely, showing a lack of serious concern for the costs of regulation and ignoring a central priority of this Administration and its predecessor. For these reasons, the Agency should not and cannot go forward with this rule. My full comment follows. Thank you for your consideration of this pressing matter.

# TABLE OF CONTENTS

**I. The Agency’s “Environmental Justice” Analysis Is Unreasonable and Arbitrary.....3**

**II. The Agency Does Not Reasonably Account for Costs.....4**

**A: The Agency Arbitrarily Punishes Certain Regulated Entities..... 4**

**B: The Agency Does Not Weigh, Consider, Address, or Acknowledge Potential Costs to National Security. .... 6**

## I. The Agency’s “Environmental Justice” Analysis Is Unreasonable and Arbitrary

The Agency’s “environmental justice” analysis is transparently unreasonable and arbitrary. The Agency explains that they used a radius of 10 kilometers for its proximity demographic analysis because taconite iron ore processing facilities are “very large,” such that “a distance closer than 10 km does not yield adequate population size for the results.”<sup>1</sup> This, however, admits that the environmental justice analysis did not aim to determine which group of people was actually disproportionately affected by taconite processing facilities.<sup>2</sup> That is, the Agency did not determine the radius in which the taconite processing facilities have a great effect on individuals’ health; rather, the Agency admits that it determined a convenient radius that contained enough individuals for the EJ analysis to apply to a sufficient number of people. The public has been given no notion of why this number of people was sufficient or whether the people within this radius are actually affected by the processing plants. This is an archetypical example of arbitrary and capricious rulemaking: selecting which factors are considered based on the results that they will yield rather than on their usefulness in reaching a truthful and reasonable picture of reality. It is not clear to the public that the people in the radii are particularly impacted by the mines, or to what extent, and, consequently, it is not clear that the plants actually have a disproportionate impact on certain populations. Even if the Agency has some reason to think that individuals might be impacted in some way, it has already betrayed that this number was not selected by a reasonable evaluation of who would be affected by this rulemaking. In *Michigan v. EPA*, the Supreme Court found that, even if the Agency found after the fact that the costs of its rule would be justified by its benefits, the rule proposed and promulgated was nonetheless arbitrary and capricious because “when it deemed [regulatory action] appropriate, EPA said that cost was irrelevant to that determination,” and therefore, “[e]ven if the Agency could have considered ancillary benefits [...] it plainly did not do so here.”<sup>3</sup> Failing to do consider this factor during the rulemaking process made that rule arbitrary and capricious; thus, the Agency cannot now attempt to claim that the 10 km radius is not arbitrary, even if it can find evidence that such a radius could possibly be reasonable (even though its own statement seems to indicate that such a radius is not typical, i.e., that they would have chosen a smaller radius except for the fact that “a distance closer than 10 km does not yield adequate population size for the results.”) The Agency did not exercise its faculty of public reason or earnestly engage in reasonable rulemaking when it set the population analysis radius in

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<sup>1</sup> 88 FR 30931

<sup>2</sup> It is notable that this statement at 88 FR 30931 is the only explanation given by the Agency for the radius selected; even the supporting document which was the source of this information, “Analysis of Demographic Factors for Population Living Near Taconite Iron Ore Processing Source Category Operations” (EPA-HQ-OAR-2017-0664-0221), included no explanation for the reasonableness of the 10 km radius as opposed to smaller ones that do not contain very many people.

<sup>3</sup> *Michigan v. Env'tl. Prot. Agency*, 576 U.S. 743, 758, 760 (2015).

order to obtain “adequate” data for the “results” desired. It attempted to make a decision arbitrarily and with caprice, and, as such, the Agency cannot go forward with this rule.<sup>4</sup>

## **II. The Agency Does Not Reasonably Account for Costs.**

### **A: The Agency Arbitrarily Punishes Certain Regulated Entities.**

The Agency correctly sets the mercury emissions regulations at the MACT floor. The cost to get all plants to this level is estimated to be \$129 million in first-year investment and \$71 million in annual costs predicted.<sup>5</sup> Given the small number of firms at play in this industry—just 8, with only 7 active—this alone would impose an average cost per firm of \$18.42 million at year 0 and \$10.14 million in annual costs, for an undiscounted 5-year cost of \$69.13 million per firm. The Agency should recognize this fact and, consequently, be incredibly cautious in its rulemaking. In particular, every action it proposes beyond the MACT floor should be justified by a thorough and robust analysis of the costs and benefits. Especially given how few people are affected by taconite plants—a number that is at most 59,000, but which is likely lower, given the arbitrary language used to justify the radius analyzed, as discussed above—it behooves the Agency to be extremely wary of imposing unnecessary costs on regulated entities. Yet it proposes to do this in several ways, without sufficient or even extant justification.

With respect to the mercury limits, the Agency unnecessarily and unreasonably implements more stringent requirements for their emissions averaging compliance alternative. The Agency writes that, under the compliance alternative:

“a taconite iron ore processing facility with more than one indurating furnace may average mercury emissions across the indurating furnaces located at the facility provided that the mercury emissions averaged across all indurating furnaces at the facility do not exceed a mercury emission limit of  $1.26 \times 10^{-5}$  lb/LT, on a production-weighted basis. This emission limit reflects a 10 percent adjustment factor to the MACT floor standard; according to our analysis, we expect this emission limit would result in mercury reductions greater than those achieved by application of the MACT floor on a unit-by-unit basis. [...] We are proposing this emissions averaging compliance alternative for existing indurating furnaces because we expect it will result in a greater level of mercury reduction than the unit-by-unit MACT floor limit at a lower cost per pound of mercury removed, while also providing compliance flexibility.”<sup>6</sup>

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<sup>4</sup> It is worth noting that, since the Agency emphasizes that the “Environmental Justice” analysis was, like the determination of irrelevance of cost discussed in *Michigan v. EPA*, instrumental “when it deemed regulation [...] appropriate,” it follows that the arbitrariness of the “Environmental Justice” analysis has poisoned the entire rulemaking. The rule was, from its inception, shot through with arbitrariness.

<sup>5</sup> 88 FR 30924.

<sup>6</sup> 88 FR 30925.

The Agency correctly identifies the expected impact of this provision—mercury reduction would no doubt be greater by the sheer fact that the mercury emission limit is ten percent more stringent than the MACT floor. However, nowhere does the Agency actually justify why this greater stringency is necessary; that is, it is not clear why firms who opt for the emissions averaging compliance option should be subject to a greater level of mercury stringency than firms that choose to comply unit-by-unit. A firm whose emissions are, on average, compliant with the MACT floor will not emit more pollutants than a firm whose emissions are compliant unit-by-unit: this is true by the fact that the mean across units is given by the following equation for  $n$  units with emissions  $U_1, U_2, \dots U_n$  and mean emissions  $x = 1.4 * 10^{-5} lb/LT$  (the MACT floor):

$$\frac{U_1 + U_2 + \dots + U_n}{n} = x$$

Such that the total emissions for a firm with average emissions at the MACT floor will necessarily be  $x * n$ . This is exactly the same amount of total emissions as a firm with all units operating at the MACT floor (i.e.,  $U_1 + U_2 + \dots + U_n = x * n$  where  $U_1 = U_2 = \dots = U_n = x$ ). The Agency does not justify, then, what seems like an unreasonable stringency toward firms that elect to comply under the averaging standard. The MACT floor, the Agency concluded, was a sufficient amount of mercury reduction; it is not clear why this amount of reduction is insufficient simply because of a difference in how firms achieve it. The Agency mentions that the averaging will have a lower cost per pound of mercury removed, but this is no reason for regulation in and of itself. That is, the Agency has not attempted to, and indeed, cannot justify this increased mercury regulation simply because compliance costs are expected to be lower. Low cost to compliance is not an invitation to or justification for increased government regulation; the Agency must justify the increased regulation itself, and in particular, the ten percent increase in stringency proposed. Of course, the Agency does not even attempt to justify increased mercury regulation for the averaging option in this way, or in any way. The ten percent number comes out of thin air, as if it were a self-evidently justified penalty to exercising a more affordable form of compliance. As *Michigan v. EPA* clearly states, it is a “foundational principle of administrative law that a court may uphold agency action only on the grounds that the agency invoked when it took the action.”<sup>7</sup>

It is worth noting that this increased stringency for firms choosing to comply under the emissions averaging option will impose costs to innovation that the Agency fails to account for or acknowledge. The emissions averaging option would allow firms to retain older units that individually do not meet the MACT standard and comply by investing in newer units that allow the firm’s average emissions to meet the MACT standard on average. On the other hand, if a firm wishes to comply unit-by-unit, it must modify all older units that fail to comply with the MACT standard (e.g., by modifying old units with activated carbon injection and a venturi scrubber, as the Agency suggests). This means that the proposed rule’s more stringent emissions

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<sup>7</sup> *Michigan v. EPA*, 758.

standards for emissions-averaging compliant firms essentially imposes stricter requirements on firms that choose to invest in new and innovative taconite iron ore processing technologies as opposed to firms that choose to invest in modifying older taconite iron ore processing technologies. The Agency does not acknowledge this impact, which amounts to punishing long-term investment in emerging technologies and arbitrarily preferring shorter-term investment in improving existing technologies.

The Agency has thus, in the words of *Motor Vehicle Manufacturers Association v. State Farm*, “entirely failed to consider an important aspect of the problem.”<sup>8</sup> Further, this attempt to regulate firms more stringently for no reason other than their intended approach to compliance, to a level of stringency that is proposed without justification, and with unacknowledged bias toward certain approaches to technology, is an archetypical example of an agency failing to “pay[] attention to the advantages *and* the disadvantages of agency decisions.”<sup>9</sup> Ultimately, the Agency has not shown that it has seriously weighed the costs and benefits of its proposal, instead pursuing an arbitrary and capricious policy of setting standards with no justification at all and without considering the impacts of punishing firms for choosing a more affordable form of compliance.

## **B: The Agency Does Not Weigh, Consider, Address, or Acknowledge Potential Costs to National Security.**

In Proclamation 9705 of March 8, 2018 (“Adjusting Imports of Steel Into the United States”), then-President Trump concurred with the judgement of the Secretary of Commerce that “steel articles are being imported to the United States in such quantities and under such circumstances as to threaten to impair the national security of the United States.”<sup>10</sup> Current President Biden has repeatedly concurred with this judgement in several proclamations which continue this policy by regulating and monitoring steel article imports “to address the threat to the national security” and “to address the threatened impairment of the national security” caused by imports of steel articles from various countries.<sup>11</sup> It is the current policy of the United States of America, at the directive of the President of the United States, to address the threat and threatened impairment to the national security of the United States that is caused by dependence on steel article imports to the United States.

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<sup>8</sup> *Motor Vehicle Manufacturers Association of the United States, Inc. v. State Farm Mutual Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

<sup>9</sup> *Michigan v. EPA*, 753.

<sup>10</sup> 83 FR 11625.

<sup>11</sup> See, e.g., Proclamation 10328 of December 27, 2021 (87 FR 11), Proclamation 10356 of March 31, 2022 (87 FR 19351), Proclamation 10406 of May 31, 2022 (87 FR 33591), and Proclamation 10588 of May 31, 2023 (88 FR 36437), each of which mention these priorities multiple times.

Taconite iron ore is an essential component to the production of steel in the United States. As the Minnesota Department of Natural Resources notes, “as the supply of high-grade natural ore decreased,” processes were developed to “take the iron ore out of [...] taconite rock,” a development which “saved Minnesota’s iron ore mining industry.”<sup>12</sup> By 1997, “ninety-nine percent of the crude iron ore produced in the United States [was] taconite.”<sup>13</sup> Companies such as U.S. Steel emphasize that taconite iron ore processing is key to its “self sufficiency”: that is, its processing of taconite from ore to pellets to usable steel in American factories.<sup>14</sup> The production of iron ore in 2022 was 46 million metric tons of usable ore, which yields an approximate 28.98 million metric tons of steel according to standard estimates of usable iron ore yield.<sup>15</sup> Taconite iron ore processing, accounting for 99 percent of U.S. iron ore processing, thus accounts for 28.69 million metric tons of domestic steel production, nearly 40 percent of all non-imported domestic steel production.<sup>16</sup> In sum, taconite iron ore processing is an essential part of the production of steel in the United States, and, in particular, is a key part of the domestic iron and steel production supply chain.

It is thus contrary to the clear directive of President Biden, initiated by President Trump, for the Agency to entirely neglect an analysis of its proposed rule on the national security of the United States. Neither the NPRM nor any of the supporting documents address the national security implications of the regulation at any length; there is no evidence that the Agency accounted for the costs to national security in its rulemaking process.<sup>17</sup> The fact that iron and steel manufacturing have been identified by the President as key to the national security of the United States means that regulations concerning domestic iron and steel production cannot reasonably ignore national security concerns and costs in the rulemaking process. The Agency’s proposed rule is poised to impact nearly 40 percent of domestic steel production, but nowhere in the regulation is the gravity of this impact on the national security of the United States weighed,

<sup>12</sup> “Taconite,” Minnesota Department of Natural Resources (Accessed July 6, 2023), <https://www.dnr.state.mn.us/education/geology/digging/taconite.html>.

<sup>13</sup> *Supplement C to Compilation of Air Pollutant Emission Factors*, “Volume 1, Stationary Point and Area Sources,” U.S. Environmental Protection Agency, (Research Triangle Park, NC: 1997), 11.23.1 “Taconite Ore Processing.”

<sup>14</sup> United States Steel, “Mining: Quality, Control and Self Sufficiency,” (Accessed July 6, 2023), <https://www.ussteel.com/customers/solutions/mining>.

<sup>15</sup> United States Geological Survey Minerals Commodity Summaries 2023, “Iron Ore,” (Accessed July 6, 2023), <https://pubs.usgs.gov/periodicals/mcs2023/mcs2023-iron-ore.pdf>. This data was used in conjunction with the standard estimate, per BHP, that 1.6 tons of iron ore yield one ton of steel (“Iron Ore,” BHP, <https://www.bhp.com/what-we-do/products/iron-ore>) and is consistent with the estimate of *Supplement C* 11.23.1 that “the average iron content of pellets is 63 percent,” as  $1 \text{ ton steel} / 1 \text{ ton taconite pellets} = 62.5 \text{ percent yield}$ .

<sup>16</sup> United States Geological Survey Minerals Commodity Summaries 2023, “Iron and Steel,” (Accessed July 6, 2023), <https://pubs.usgs.gov/periodicals/mcs2023/mcs2023-iron-steel.pdf> and USGS Commodity Summaries 2023 “Iron Ore.” With a raw steel production of 82 million metric tons, iron ore imports of 3.2 million metric tons (such that they account for  $3.2 * 0.63 = 2.016$  million metric tons of steel produced), and iron and steel scrap imports of 4.8 million metric tons, taconite ore would account for  $28.69 / (82 - 2.016 - 4.8) = 38.16$  percent of all steel produced in the United States.

<sup>17</sup> 88 FR 30917-30934 and Documents EPA-HQ-OAR-2017-0664-0226, EPA-HQ-OAR-2017-0664-0227, and EPA-HQ-OAR-2017-0664-0257.

considered, addressed, or even acknowledged. As we noted above, the reasoned consideration of advantages and disadvantages of regulation must be present in the rulemaking from the very decision to regulate and throughout the regulatory process.<sup>18</sup> The Agency has, contrary to its legal duty and to the directive of the executive, failed to devote even a single word to this centrally important cost. The Agency has once again “entirely failed to consider an important aspect of the problem”—here, it has failed to consider what is, in light of recent threats to U.S. national security, one of the *most* important aspects of the problem.<sup>19</sup> This failure is emblematic of a rulemaking process which did not consider the advantages and disadvantages of regulation and which did not justify several of its actions in any way: the rule is, therefore, arbitrary and capricious.

For all of the reasons detailed above, I urge the U.S. Environmental Protection Agency not to go forward with the proposed rule.

Respectfully submitted,

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<sup>18</sup> See *Michigan v. EPA*, 758-760.

<sup>19</sup> *Motor Vehicle Manufacturers Association v. State Farm*, 43.

<sup>20</sup> Affiliation and title provided for identification purposes only. I submit this comment in my personal capacity only and not as an employee of The Heritage Foundation.