CLIFFS

CLEVELAND-CLIFFS INC.

March 31, 2025

U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, DC 20460
Submitted by Electronic Mail to: airaction@epa.gov

**REQUEST FOR PRESIDENTIAL EXEMPTION: National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing, EPA Docket No. EPA-HQ-OAR-2017-0664, RIN 2060-AT05, 89 Fed. Reg. 16,408 (March 6, 2024) on behalf of the Cleveland-Cliffs Major Source Taconite Iron Ore Processing facilities**

Pursuant to Section 112(i)(4) of the Clean Air Act ("CAA"), Cleveland-Cliffs Inc. ("Cliffs") hereby requests a two-year exemption from the current March 8, 2027, compliance date of emissions standards promulgated in the final rule *National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing* (the "Taconite Rule"), published in the *Federal Register* at 89 Fed. Reg. 16,408 (March 6, 2024), extending the compliance date to March 8, 2029, for each Taconite Iron Ore Processing plant subject to the rule, pending EPA's reconsideration of the rule. Cliffs operates six of the eight Taconite Processing facilities in the United States. Cliffs and the American Iron & Steel Institute ("AISI") submitted several rounds of extensive comments and scientific data and analysis to U.S. EPA on the Taconite Rule that contain further support for this request.

Cliffs is a leading North America based steel producer that is vertically integrated from the mining of iron ore, production of pellets and direct reduced iron, and processing of ferrous scrap through primary steelmaking and downstream finishing, stamping, tooling and tubing. Cliffs owns and operates most of the Taconite Processing plants in the United States. These include the Taconite Iron Ore Processing facilities in Minnesota (United Taconite, Northshore Mining, Hibbing Taconite (85.3% owned) and the Minorca Mine) and Michigan (the Tilden Mine and Empire Mine). Cliffs asks that the requested Presidential exemption be granted for each of these taconite processing plants to provide needed relief from the 2024 version of the Taconite Rule.

As explained below, a Presidential exemption under CAA § 112(i)(4) is appropriate for sources impacted by the Taconite Rule because the technology to implement the new emission standards added in 2024 is not available, and Cliffs must spend tens of millions of dollars now to evaluate potential compliance pathways for the current 2027 compliance target. Protecting the

United States' iron mining industry, which is the life blood of domestic iron and steel manufacturing, is central to the country's national security interests.

## REGULATORY BACKGROUND

On March 6, 2024, in the last year of the Biden Administration, U.S. EPA promulgated the final Taconite Rule, revising the Trump EPA's 2020 Residual Risk and Technology Review ("RTR") rulemaking for the Taconite Iron Ore Processing source category. The 2020 Taconite RTR Rule concluded that the original 2003 Taconite MACT Rule addressed the risk from hazardous air pollutants with an ample margin of safety to protect public health and the environment and that there were no new technologies that justified revisions to the 2003 MACT standards under CAA § 112(d)(6). In 2024, armed with an expansive interpretation of a new D.C. Court decision, the Biden EPA concluded the Trump EPA was wrong and proceeded to impose new and unwarranted emission limitations on processing the iron ore critical to the United States iron and steel manufacturing sector.

EPA's regulation of hazardous air pollutants ("HAPs") from Taconite Iron Ore Processing started over two decades ago when, in 2003, U.S. EPA promulgated the National Emission Standards for Hazardous Air Pollutants for Taconite Iron Ore Processing (40 CFR Subpart RRRRR §§ 63.9580, *et. seq.*). U.S. EPA carefully evaluated the taconite processing sector and set maximum achievable control technology ("MACT") standards that regulated HAP emissions based on what the best controlled sources in the source category achieved in practice. *See* CAA §112(d). This process resulted in establishing particulate matter ("PM") standards as surrogates for HAP, including acid gases. Based on this evaluation, U.S. EPA decided not to regulate acid gases individually or to set mercury limits as MACT standards considering available control technologies and the best available science.

In 2020, EPA issued a final rule to fulfill its obligations under CAA §§ 112(d)(6) and (f)(2), or the "risk and technology review" ("RTR"). U.S. EPA found that "risks from the Taconite Iron Ore Processing source category are acceptable [and] that the standards provide an ample margin of safety to protect public health" and therefore found that it was unnecessary to set standards for hydrogen chloride ("HCl"), hydrogen fluoride ("HF"), or mercury, fulfilling the Agency's CAA § 112(f)(2) obligation. *National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing Residual Risk and Technology Review*, 85 Fed. Reg. 45476, 45479 (July 28, 2020). U.S. EPA further determined that "[t]here are no developments in practices, processes, or control technologies that necessitate revisions to the standards," fulfilling the Agency's CAA § 112(d)(6) obligation. *Id.*

In the rulemaking process that led to U.S. EPA's 2024 Taconite Rule, U.S. EPA was not motivated by additional human health risk. U.S. EPA did not disturb its 2020 determination that the 2003 Taconite MACT rule controlled HAP from the Taconite Iron Ore Processing industry to an acceptable risk level with an ample margin of safety, without any additional controls. Cliffs provided detailed comments on the proposed rule explaining why U.S. EPA should follow the

Trump EPA's approach in 2020 and decline to set new standards, or in the alternative, should set standards that were reasonable, less costly and more likely achievable by the industry. Nevertheless, U.S. EPA rejected Cliffs' comments and promulgated the final Taconite Rule imposing onerous, unreasonable and extremely costly standards for HCl, HF and Mercury.

## THE 2024 TACONITE RULE

The 2024 Taconite Rule was rushed without adequate consideration of industry input and without making the required finding that additional emission standards were "necessary" considering cost and other factors. *See* CAA § 112(d)(6)

For example, acid gases were adequately controlled under the existing 2003 MACT Rule through PM surrogacy standards. The Biden EPA's 2024 Taconite Rule justified new individual acid gas emission limits for HCl and HF premised on characterizing long-standing, existing technology as a "new" development under CAA § 112(d)(6). It was not new. Facilities that used existing wet scrubber control technology for PM met the new acid gas standard. The Tilden Mine, which happens to use electrostatic precipitators ("ESPs") as its existing particulate control technology, cannot meet the new acid gas standard. The 2024 Taconite Rule concedes that replacing ESPs with wet scrubbers was too costly, but the Taconite Rule assumed without evidence that Tilden could inject lime into its exhaust to bind with acid gases to be removed at the ESP. This technology is not demonstrated in the taconite industry. In fact, injecting such lime material causes build-up in the ducts, ESPs, and other associated equipment, thereby disrupting the taconite facility's complex systems and ability to operate. A Presidential exemption is warranted in this situation where technology is not available to implement the standard.

Then, relying on an aggressive interpretation of the D.C. Circuit's decision in *Louisiana Environmental Action Network v. EPA* ("*LEAN*"), 955 F.3d 1088 (D.C. Cir. 2020), the Biden EPA decided to set emission limits for mercury that U.S. EPA had rejected in the original 2003 Taconite MACT Rule and subsequent 2020 RTR Rule as impractical and unnecessary. Taconite iron ore is mined in Michigan and Minnesota where naturally occurring mercury is variably encountered at trace concentrations within the ore deposits. It is impossible to exclude mercury from the mining process, and it is unreasonably expensive to control for mercury that is variably present at trace concentrations with the taconite iron ore being processed. Nonetheless, the 2024 Taconite Rule imposed stringent mercury emission limits based on emission tests at facilities that happened to be processing lower-mercury ores at the time. As the Trump EPA had concluded in 2020, no taconite facility was controlling for mercury or otherwise demonstrating that such control was technically feasible or economically reasonable. As such, there is no demonstrated technology that Cliffs' facilities can use to meet the mercury emission limits.

Cliffs sought relief from the Taconite Rule, filing a petition for judicial review in the D.C. Circuit and a motion for judicial stay of the final rule. Cliffs also filed a petition for administrative reconsideration and sought administrative stays of the rule with U.S. EPA. The request for judicial stay was denied on October 3, 2024 by the D.C. Circuit Court of Appeals after being opposed by the Biden EPA. The Court has since ordered the challenges to the Taconite Rule be held in abeyance pending U.S. EPA action on the petitions for reconsideration.

On March 12, 2025, U.S. EPA announced its intention to reconsider the Taconite Rule, citing numerous issues with a group of rules establishing or modifying various National Emission Standards for Hazardous Air Pollutants. EPA further indicated that the President was considering issuing exemptions from compliance dates under CAA § 112(i)(4) where appropriate, and that affected sources should provide recommendations for such exemptions to U.S. EPA by March 31, 2025. Reconsideration is an important first step, but the deadlines in the Taconite Rule are still looming. Since there is no demonstrated technology to achieve the new 2024 emission standards, Cliffs' facilities need multiple years to investigate, create, and evaluate a potential pathway to compliance. The Presidential exemption is essential to ensure that reconsideration is afforded the opportunity to properly and lawfully reset standards before Cliffs invests significant resources in an effort to comply with a flawed rule. Without a Presidential exemption, Cliffs must spend tens of millions of dollars now and thousands of hours of valuable staff resources to meet the 2027 compliance targets.

Cliffs strongly supports U.S. EPA's plan to reconsider this final regulation, for numerous technical and legal reasons previously raised in industry comments during the notice and comment period preceding the Taconite Rule, in Cliffs' lawsuit challenging the Rule, and in Cliffs' petition for reconsideration.

## A. TECHNOLOGY TO IMPLEMENT THE 2024 TACONITE RULE IS UNAVAILABLE

### 1. Technology to Implement the Standard Is Not Available

EPA's candidate control technologies identified as necessary for taconite processing furnaces to comply with the Taconite Rule are not available, have not been demonstrated in practice, and will require significant research and development, pilot plant experimentation, and great expense to address uncertainties. These candidate technologies have not been applied in this industry. The controls for acid gases and mercury both require the injection of lime or activated carbon into the exhaust stream. Other industrial sectors where these technologies have been demonstrated, *e.g.*, electric generation, have different exhaust gas characteristics and do not have to manufacture iron ore pellets to quality specifications. They are essentially boiling water. By contrast, Taconite Iron Ore Processing uses a complex high-heat system that uses and re-uses exhaust heat to fire pellets to specifications essential to producing quality iron ore pellets. This quality is essential to the safe and effective operation of blast furnaces and direct reduced iron systems in the iron and steel manufacturing sector. U.S. EPA's erroneous assumptions about the transfer of control technology from the electric sector to the taconite sector demonstrate a poor understanding of the taconite industry and warrant time for thorough reconsideration. Because control technology is not available for the taconite industry, a Presidential exemption is important to allow this thorough review.

The current compliance date, March 8, 2027, is less than two years away, an extremely short period to marshal capital expenditures of hundreds of millions of dollars for unproven control technology development and installation. Furthermore, it would be unreasonable, and unfair, to require taconite processing plants to begin expending substantial financial and other

resources to prepare for compliance with the Taconite Rule at a time when U.S. EPA intends to reconsider the rule.

Accordingly, even for technologies that operate effectively in simpler systems like utilities, these controls are far from being demonstrated workable in taconite processing plants. As such, the standard of unavailability in CAA § 112(i)(4) is met due to the exceedingly short time frame for compliance, and the two-year exemption is necessary to make room for reconsidering the standards and the controls on which they are based.

**2. The Standards Cannot Be Implemented with Cost-Effective Technology**

No *cost-effective* technology is available, or could be available, to implement the standards established in the Taconite Rule. U.S. EPA estimates that the rule will cost the industry, for mercury alone, $134 million in capital investment (or $385,579 per pound of mercury removed) over the next 20 years. Industry estimates are even higher, at least $750 to 800 million, with $170 to 180 million in annualized costs (or $745,975 per pound of mercury removed). The Minnesota Pollution Control Agency's ("MPCA's") cost estimates were similar to the industry estimates and ranged from $636 to $685 million with $130 to $138 million in annualized costs. As noted above, U.S. EPA's own risk assessment showed that even without controls, emissions from the industry presented an acceptable level of risk to public health with an ample margin of safety. As a result, any costs expended to meet these standards are unreasonable, and, by definition, not cost-effective.

**3. EPA Has Not Established That Standards in the Taconite Rule Are Achievable with the Proposed Technology**

As noted above, EPA imposed standards requiring use of control technologies, despite the fact that these technologies are not in use at any taconite furnace in the country. Thus, the efficacy of these technologies in actual taconite furnaces is speculative and will need significant testing and piloting before they can be considered achieved in practice or even achievable in this source category. In some cases, there is serious doubt about whether compliance with the new emission standards is possible at all. As summarized below, the record is insufficient to demonstrate that these technologies are available to implement the standards in the Taconite Rule.

**Hydrogen Chloride ("HCl")**

To treat HCl and HF, U.S. EPA finds that some taconite plants will need to use dry sorbent injection ("DSI"), in which a lime product is injected into the exhaust stream to react with and potentially remove HCl and HF. While this technology has been used in other industries to treat HCl, it is not in use in the United States at any taconite furnace. This means that U.S. EPA's projections of the feasibility and costs of using this technology were not based on data from taconite furnaces and thus are speculative and unproven to be available. Accordingly, the implications of DSI injection into the complex workings of the taconite furnace are not well understood. Early assessments indicate that substantial build up occurs in the system that was

not considered in U.S. EPA's assumption that this control technology was feasible when applied to the taconite sector. The parameters and efficacy of this application are unknown until actual testing is done. This will take a significant amount of time, and thus it is unknown if this technology can be consistently installed at taconite furnaces and successfully achieve the HCl standards before the current compliance date. Thus, this technology should be deemed currently unavailable.

In its comments submitted to EPA, with support from its technical consultants, Cliffs identified numerous technical problems with EPA's prediction of the efficacy of DSI for control of HCl in taconite furnaces. As a baseline, EPA did not establish the rates for DSI representative of actual production levels. Unlike mercury, where EPA permitted establishment of rates at low, medium, and high production levels, EPA only permitted rate establishment at and/or near maximum capacity during a single stack test. By putting industry in a position where rates are set at the maximum, further technical issues include waste of the resource of hydrated lime, additional scrubber and/or wet ESP systems to address the increased lime, and sludge buildup leading to increased maintenance costs.

**Mercury**

The technology identified by EPA for treatment of mercury is Activated Carbon Injection ("ACI"). As with all the technologies addressed here, ACI has not been used at Taconite Iron Ore Processing plants in the United States to treat mercury. Once again, U.S. EPA's projections of the feasibility and costs of using this technology were not based on data from indurating furnaces and thus are speculative. Since ACI changes the form of mercury emitted from elemental to particle-bound or oxidized, this technology will change how and where mercury will be deposited. It is irresponsible for EPA to proceed with a rule relying on this technology without fully assessing how these changes applied for the first time to Taconite processing may affect the deposition and availability of mercury in the environment. A technology should not be considered "available" for this industry until the data are available to confirm that it does not cause more harm than good. A two-year extension offers U.S. EPA time to better understand the data relevant to this issue before requiring facilities to invest in ACI control systems.

Testing to determine how to treat mercury in each taconite furnace will take a significant amount of time, and thus it is unknown if this technology can be consistently installed at taconite furnaces and successfully achieve the mercury standards before the current compliance date. Given the novelty of the technology, design, engineering, fabrication, installation, and testing will take a minimum of two to three years to complete. Pilot testing alone must be completed within the first year, testing which requires outages and production shutdowns that can range in costs from $300,000 to $1,300,000 per day. Not only are such costs exponential, but facilities are expected to undertake them with no precedent for using ACI in the industry before. Thus, this technology should be deemed currently unavailable.

Overall, U.S. EPA's candidate control technologies identified as necessary for taconite furnaces to comply with the Taconite Rule will require significant research and development, pilot plant experimentation, and great expense (and uncertainty). Furthermore, their application

to achieve the very low levels of HAP emissions from taconite furnaces is far from demonstrated in practice and may not be achievable for many taconite furnaces. Accordingly, a minimum of a two-year extension of time for compliance is clearly appropriate for all affected sources in the Taconite Iron Ore Processing industry. For additional information on issues with control technologies in the taconite processing industry refer to *Comments of AISI and U. S. Steel, (July 7, 2023),* Docket No. EPA-HQ-OAR-2017-0664-0181.

For all the reasons stated above, none of the technologies identified to implement standards in the Taconite Rule are available within the period between the present and the compliance date of March 8, 2027, and an exemption should be granted extending the compliance date until March 8, 2029, to all the sources on the attached list, while EPA reconsiders the Taconite Rule.

## B. IT IS IN THE NATIONAL SECURITY INTERESTS OF THE UNITED STATES TO PROVIDE AN EXEMPTION FROM THE TACONITE RULE COMPLIANCE DATE

The impact of the Taconite Rule is far-reaching and undermines the country's national security interests given that taconite is an essential raw material for the integrated iron and steel industry, an industry critical to national security. The U.S. Department of Commerce recognized that domestic steel production is essential for national security applications, which it indicated encompasses transportation systems, the electric power grid, water systems, and energy generation systems in its report summarizing the findings of an investigation conducted by the Department of Commerce pursuant to Section 232 of the Trade Expansion Act of 1962, as amended (19 U.S.C. § 1862 ("Section 232")), into the effect of imports of steel mill products ("steel") on the national security of the United States.[1] In a 2021 Congressional Research Service Report on United States Steel Manufacturing: National Security and Tariffs, it was noted that under the Defense Production Act, 50 U.S.C. §4533, "Congress provides the President with a broad set of authorities …, including Title III, which authorizes the use of economic incentives to secure domestic industrial capabilities essential to meet national defense and homeland security needs. DOD has funded several Title III projects to increase domestic production of steel products," including a $56 million agreement in 2020 to boost steel plate production signed by the predecessor owner of a Cliffs' facility.[2]

Ensuring the strength and global competitiveness of this industry is of vital importance to the nation's economy, security, and manufacturing prowess. Supporting this is the fact the industry provides more than **$520 billion** in economic output, nearly **two million jobs,** more than **$130 billion in wages and benefits** to employees, and **$56 billion in federal, state and local taxes**. Cliffs alone employs approximately 27,000 people, most of whom are members of

[1] *See* U.S. Department of Commerce Bureau of Industry and Security Office of Technology Evaluation, *The Effect of Imports of Steel on the National Security Report, Report by the January 11, 2018*, https://www.commerce.gov/sites/default/files/the_effect_of_imports_of_steel_on_the_national_security_-_with_redactions_-_20180111.pdf

[2] Congressional Research Service Report, *U.S. Steel Manufacturing: National Security and Tariffs* (August 12, 2021), https://www.congress.gov/crs-product/IF11897

unions such as the United Steelworkers and the International Association of Machinists and Aerospace workers.

Rulemaking must take into consideration the necessary role that iron ore (Taconite) plays in our country and balance management of these critical resources. Senators, Members of Congress, and representatives from the United Steelworkers all recognize the vital role of the taconite industry in maintaining the economic competitiveness of the American integrated iron and steel industry. Eight current or former U.S. Senators (Senators Brown, Vance, Braun, Manchin, Casey, Klobuchar, Capito and Young) wrote a letter to U.S. EPA warning the Agency that its three proposed rules aimed at the steel industry impacting taconite iron ore processing, coke manufacturing, and integrated iron and steelmaking – "would dramatically undermine the domestic steel industry and national security while driving production overseas …."[3] United Steelworkers likewise urged EPA to grant reconsideration of the rulemaking petitions in order to "prevent unintended consequences, such as job loss [and] loss of domestic steelmaking capacity," among others.[4]

The threat of global steel imports raised by the Senators in the letters to EPA is a material threat. Foreign steel imports risk the competitiveness and advancement of the domestic steel industry, to the point of potentially threatening U.S. domestic production capacity and continued investment in taconite iron mining, coke manufacturing, and iron and steelmaking capacity based on the costs outlined above. As emphasized by the U.S. Department of the Treasury's Committee on Foreign Investment in the United States ("CFIUS"), without such domestic steelmaking investment, there could be ripple effects on the supply chains that depend on such steel, particularly supply chains that are part of our national defense infrastructure such as "critical manufacturing, energy, transportation, and communications (all vital to national security)."[5] National defense infrastructure, for example, needs ready access to high purity steel from blast furnaces.[6] Once these complicated iron and steel making operations are shut down and/or idled, it is no simple matter to restart them. In short: "The loss of domestic production is a critical national security concern given the ubiquitous nature of steel throughout multiple critical industries."[7]

For all the reasons stated above, Cliffs urges the issuance of a two-year exemption from the current March 8, 2027, compliance date of the final Taconite Rule, extending the compliance date to March 8, 2029, pending EPA's review of the rule for possible revision.

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[3] Letter from U.S. Senators Brown, Vance, Braun, Manchin, Casey, Klobuchar, Capito, and Young to Michael Regan, EPA Administrator (Dec. 6, 2023), pp. 1-2.

[4] Letter from David McCall, International President (United Steelworkers) to Michael Regan, EPA Administrator (June 24, 2024).

[5] Letter from Andrew Fair, Acting Assistant Secretary for Investment Security, U.S. Department of the Treasury, to Ama Adams, Ropes & Gray LLP, and Mark Plotkin, Covington & Burling LLP, Re: CFIUS Case 24-154 (Dec. 14, 2024) ("CFIUS Letter"), p. 28.

[6] *Id.* at p. 24.

[7] *Id.* at p. 28.

Thank you for considering this request. Please direct any questions to Jason Aagenes at jason.aagenes@clevelandcliffs.com.

Respectfully submitted,

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