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Ms. Lisa Thompson
Sector Policies and Programs Division (D243-02)
Office of Air Quality Planning and Standards
Environmental Protection Agency
Research Triangle Park, NC 27711

RE: Comments on Repeal of Greenhouse Gas Emissions Standards for Fossil Fuel-Fired Electric Generating Units, 90 FR 25752 (June 17, 2025)
Docket ID No.: EPA-HQ-OAR-2025-0124

Dear Ms. Lisa Thompson:

The American Iron and Steel Institute (AISI) serves as the voice of the American steel industry in the public policy arena and advances the case for steel in the marketplace as the preferred material of choice. AISI's membership is comprised of integrated and electric arc furnace (EAF) steelmakers, steel pipe and tube manufacturers and steel processors and fabricators, reflecting the production and distribution of both carbon and stainless steels. These steels are critical to America's national and economic security, including roads and bridges, buildings, the electrical grid, cars and trucks and all clean energy technologies. AISI also represents associate members who are suppliers to or customers of the steel industry.

The American steel industry leads the world in clean and efficient production of steel. However, steel manufacturing is energy-intensive and, as such, an affordable and reliable supply of energy is essential for the competitiveness of the industry. This is particularly important given the global overcapacity in the steel industry driven by subsidies and other foreign government trade-distorting practices.

Therefore, the Environmental Protection Agency's (EPA) proposed *Repeal of Greenhouse Emission Standards for Fossil Fuel-Fired Electric Generating Units* rule¹ (Power Sector GHG

¹ *Repeal of Greenhouse Gas Emissions Standards for Fossil Fuel-Fired Electric Generating Units*, 90 FR 25752 (June 17, 2025), Docket ID No. EPA-HQ-OAR-2025-0124.

Rule Repeal) is of significant importance to the steel industry. AISI appreciates the opportunity to provide the comments below. AISI supports EPA's proposal and urges finalization of the Power Sector GHG Rule Repeal.

1. The Continued Implementation of the 2024 Power Sector GHG Rule Would Be Detrimental to the Steel Industry Through Increased Electricity Costs and Reduced Grid Reliability.

The domestic steel industry is proud to be the cleanest and most energy efficient of the leading steel industries in the world, producing steel with lower carbon dioxide (CO₂) emissions intensity than major competing steel industries. Further, a report published in 2020 illustrated that American steel has approximately 60 percent lower CO₂ emissions intensity than the global average.² Also, a 2021 study found the American steel industry is 75-320 percent more carbon efficient than global producers and that "America produces steel while emitting less carbon dioxide than all of our major competitors."³

Despite this global leadership, the energy-intensive nature of iron and steel production remains a consistent challenge for American steel producers. Based on recent U.S. Energy Information Agency (EIA) data, the domestic steel industry consumes over 1.1 quadrillion BTU of energy as fuel, with net electricity accounting for nearly 20 percent of that total.⁴ Total U.S. energy expenditures for the iron and steel industry are over \$6 billion (in 2002 dollars), with over 30 percent (\$1.8 billion) of this expenditure associated with electricity.⁵ Based on global averages, for Electric Arc Furnace steelmaking, electricity accounts for approximately 50 percent of the energy input.⁶ Likewise, for Blast Furnace and Basic Oxygen Furnace steelmaking, electricity accounts for nearly 10 percent of the energy input.⁷ Given this significant electric consumption by steel mills, AISI has concerns about the impacts of the 2024 Power Sector GHG Rule on electric costs and grid reliability if that rule remains effective.

It is AISI's view that EPA underestimated the expected costs for the 2024 Power Sector GHG Rule⁸, particularly for industrial consumers that will incur substantial increased

² <https://clcouncil.org/reports/americas-carbon-advantage.pdf>

³ *Leveraging a Carbon Advantage: Impacts of a Border Carbon Adjustment and Carbon Fee on the U.S. Steel Industry*, a CRU case study released by CLC, May 2021. <https://clcouncil.org/reports/leveraging-a-carbon-advantage-key-findings.pdf?v1>

⁴ *Manufacturing Energy Consumption Survey Steel Analysis Brief*, U.S. Energy Information Administration (2006), available at: <https://www.eia.gov/consumption/manufacturing/briefs/steel/>.

⁵ *Id.*

⁶ *Energy Use in the Steel Industry Fact Sheet*, World Steel Association, available at: <https://worldsteel.org/wp-content/uploads/Fact-sheet-Energy-use-in-the-steel-industry.pdf>.

⁷ *Id.*

⁸ *New Source Performance Standards for Greenhouse Gas Emissions From New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions From Existing Fossil*

costs of electricity generation and transmission. Such increased costs, along with potential base load generation and grid reliability issues from the premature closure of fossil fuel-fired power plants, would have a substantial impact on steel mills in the United States. The proposed Power Sector GHG Rule Repeal, if finalized, will ensure that the 2024 regulatory action by EPA will not cause such detrimental energy issues on the domestic steel industry.

While steelmaking operations are located across the United States, the states in which the most steel production occurs are the ones that will be impacted most acutely by the 2024 Power Sector GHG Rule. The leading states for steel production include Indiana, Ohio, Pennsylvania, Michigan, Arkansas and Alabama, which have historically been reliant on fossil fuel-fired power generation.⁹

This reliance on fossil fuel-fired power for key steel states is particularly concerning to the steel industry since the 2024 Power Plant GHG Rule would require fossil fuel-fired power generators to install unproven, expensive CCS, or in some circumstances co-fire boilers with hydrogen gas. However, based on the 2024 rulemaking record, EPA expected that few, if any, coal-fired power plants would in fact install CCS. That means such base load generation could shut down and need to be replaced with other power generation sources, presumably renewable energy generation. Given the location of fossil fuel-fired power generation in the country, the substantial and accelerated reduction or elimination of such base load power generation would result in destabilization of the power grid and negatively affect grid reliability for industrial customer sectors like iron and steel.

Indeed, AISI's concerns relating to grid reliability if the 2024 Power Sector GHG Rule remains effective are shared by regional transmission organizations. For example, PJM has stated that it expects the retirement of 20 percent of PJM generators (40 GW) by 2030, and the current pace of new renewable resource generation would be insufficient to keep up with these expected retirements and expected demand growth.¹⁰ Likewise, Midcontinent Independent System Operator has stated that it anticipates a capacity shortfall.¹¹

Given these forecasts and expectations from grid operators, there is a distinct concern regarding the reliability and affordability of power from the continued effectiveness of

Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule, 89 Fed. Reg. 39,798 (May 9, 2024).

⁹ U.S. Energy Information Administration, State Energy Profiles, available at: <https://www.eia.gov/state/> (Utility-Scale Net Electricity Generation statistics).

¹⁰ PJM, *Ensuring a Reliable Energy Transition*, <https://www.pjm.com/about-pjm/ensuring-a-reliable-energy-transition>.

¹¹ *US Midcontinent ISO, states eye possible 2.1 GW capacity shortfall in 2025*, September 14, 2023, available at: <https://www.utilitydive.com/news/midcontinent-miso-interconnection-queue-supply-chain-transmission-expansion-mtep/693652/>.

the 2024 Power Sector GHG Rule, especially in areas of the country reliant on fossil-fuel energy production. These resulting reliability and affordability problems would threaten the international competitiveness of the steel industry in the United States, which may result in additional foreign steel imports. The idling or shutdown of steel mills due to unreasonably high electric costs and/or availability is therefore unacceptable and damaging to the overall economy.

As stated above, American steel producers lead the world in efficient energy consumption.¹² However, energy consumption overall, and electricity consumption in particular, remain essential to steel production. As such, any potential impact on electricity generation, both in terms of cost and reliability, is of heightened concern to the steel industry. The 2024 Power Sector GHG Rule, therefore, remains of significant concern to AISI. As such, AISI encourages EPA to finalize the Power Sector GHG Rule Repeal in order to rescind the GHG limits on fossil fuel-fired power plants.

2. AISI Supports EPA’s Interpretation That the Clean Air Act Requires a Finding That a Source Category Must be a Significant Contributor to Dangerous Air Pollution for Each Air Pollutant It Intends to Regulate.

In the proposed Power Sector GHG Rule Repeal, EPA interprets Clean Air Act Section 111 to require that EPA must determine that GHG emissions from EGUs contribute significantly to dangerous air pollution as a predicate to regulation of GHG emissions from that source category.¹³ Based on an identified framework for assessing whether EGUs “contribute significantly” to dangerous air pollution from GHGs, EPA proposes that EGUs do not so contribute. EPA thus proposes to repeal all GHG emission standards and emission guidelines for the power sector.¹⁴ AISI supports EPA’s conclusion that the Clean Air Act requires an individual determination for each pollutant from a source category that that given pollutant contributes significantly to dangerous air pollution as a predicate for regulation of that pollutant.

Section 111(b)(1)(a) of the Clean Air Act regarding the New Source Performance Standards states the following:

The Administrator shall, within 90 days after December 31, 1970, publish (and from time to time thereafter shall revise) a list of categories of stationary sources. He shall include a category of sources in such list if in his judgment it *causes, or contributes*

¹² See, e.g., *Steel Climate Impact, An International Benchmarking of Energy and CO2 Intensities*, Global Efficiency Intelligence, April 2022, available at: <https://www.globalefficiencyintel.com/steel-climate-impact-international-benchmarking-energy-co2-intensities>.

¹³ 90 Fed. Reg. at 25768.

¹⁴ 90 Fed. Reg. at 25762.

significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare.¹⁵

Further, Section 111(b)(1)(B) states the following, in relevant part:

Within one year after the inclusion of a category of stationary sources in a list under subparagraph (A), the Administrator shall publish proposed regulations, establishing Federal standards of performance for new sources within such category. . .¹⁶

The term “standard of performance” means “a standard for emissions of air pollutants . . .”¹⁷

Based on these definitions, Congress established an approach under the Clean Air Act for the New Source Performance Standard (NSPS) program that has the following essential framework:

- EPA identifies a source category that significantly causes or contributes to dangerous air pollution.
- EPA thereafter promulgates a standard of performance for sources in that category.
- That standard of performance relates to a standard for the emission of the air pollutant.

Collectively, these statutory provisions dictate that EPA establish standards for the regulation of air pollutants from source categories that significantly contribute to dangerous air pollution.

Interpreting these Clean Air Act provisions comprehensively, the only logical conclusion is that for each standard of performance for a source category for each air pollutant, EPA must demonstrate that such air pollutant causes or contributes to dangerous air pollution. Any other interpretation is illogical and unreasonable.

For example, for process operations specific to steelmaking, particulate matter is the only air pollutant regulated by an NSPS.¹⁸ This is based on determinations by EPA in 1973

¹⁵ 42 U.S.C. 7411(b)(1)(a) (emphasis added).

¹⁶ 42 U.S.C. 7411(b)(1)(a) (emphasis added).

¹⁷ 42 U.S.C. § 7411(a).

¹⁸ Steel Plants: Electric Arc Furnaces (EAFs) and Argon-Oxygen Decarburization Vessels (AQD), 40 C.F.R. Part 60, Subparts AA, AAa and AAb; Basic Oxygen Process Furnace (BOPF) Primary Emissions, 40 C.F.R. Part 60, Subpart N; Basic Oxygen Process Furnace (BOPF) Steelmaking Facilities Secondary Emissions, 40 C.F.R. Part 60, Subpart Na.

and 1974 that particulate matter from certain steelmaking operations satisfied the NSPS threshold for regulation.¹⁹ However, based on EPA's interpretation in the 2024 Power Sector GHG Rule, a threshold determination for *one* pollutant allows regulation for *all* pollutants. This would be an illogical and unreasonable position that, just because a steelmaking source may warrant regulation for particulate matter as determined in 1973 and 1974, the same steelmaking source would also somehow warrant regulation for all other air pollutants more than 50 years later without any assessment of the danger of the emission of those air pollutants. This position becomes even more egregious if the source only emits pollutants in *de minimis* amounts. Such a position ignores the straight-forward statutory framework for promulgating an NSPS.

EPA is acting within its Clean Air Act authority with its interpretation that Clean Air Act section 111(b)(1) is best read as requiring a pollutant-specific determination to promulgate a performance standard.²⁰ AISI therefore supports EPA's finding on this issue in the Power Sector GHG Rule Repeal.

3. AISI Supports EPA's Finding That 90 Percent Carbon Capture and Sequestration Is Not "Adequately Demonstrated" and Thus Is Not Appropriate to Establish as the Best System of Emission Reduction for the Power Sector.

Steel companies in the United States are undertaking major initiatives to improve their energy efficiency and reduce their carbon emissions intensity. The decarbonization pathways for the iron and steel sector are unique compared to other sectors and unique among individual steel facilities. Producers are committed to utilizing low emissions electricity for steelmaking and reheating processes, along with exploring options for carbon capture, utilization, and storage (CCUS) technologies. Many of these technologies are unproven or still experimental in nature and will require additional research and development to achieve pilot scale and first-of-kind deployments.

However, notwithstanding the industry's support of reasonably addressing sustainability issues, any such requirements must follow the law. AISI therefore supports EPA's finding in the Power Sector GHG Rule Repeal that 90 percent carbon capture and sequestration (CCS) is not "adequately demonstrated" and thus is not appropriate to establish as the Best System of Emission Reduction (BSER) for the power sector.

The law simply does not support 90 percent CCS as BSER as a standard of performance. The Clean Air Act defines "standard of performance" to mean "a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost

¹⁹ 38 Fed. Reg. 15406 (January 11, 1973); 39 Fed. Reg. 37477 (October 21, 1974).

²⁰ *Loper Bright Enters. v. Raimondo*, No. 22-4751, 2024 WL 3208360 (U.S. June 28, 2024).

of achieving such reduction and any non-air quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.”²¹

Therefore, the standard of performance that EPA can employ must be the “best system of emission reduction” (BSER) that is “adequately demonstrated.” To be “adequately demonstrated,” a system must be “one which has been shown to be reasonably reliable, reasonably efficient, and which can reasonably be expected to serve the interests of pollution control without becoming exorbitantly costly in an economic or environmental way.”²² While courts have allowed for some degree of projection, any such projection “is subject to the restraints of reasonableness and cannot be based on ‘crystal ball’ inquiry” or be “purely theoretical or experimental.”²³

In the 2024 Power Sector GHG Rule, EPA far exceeded its authority on determining what is “adequately demonstrated” and instead fell fully into an unlawful “crystal ball” inquiry based on experimental technology. Based on the 2024 rulemaking record, EPA did not expect many, if any, fossil fuel-fired power plants to pursue CCS.²⁴ In fact, EPA did not cite a single domestic power plant that was then-currently achieving the standards set forth in the proposed rule. EPA could only cite small, capture-focused facilities, or projects that “have the potential” or “have been announced.” This paucity of meaningful examples suggests that even EPA knew at the time that the technology was not ready and available, and that power plants would very likely need to shut down.

In the proposed Power Sector GHG Rule Repeal, EPA has summarized and updated the support in the initial 2024 rulemaking for the 90 percent CCS standard.²⁵ That information continues to support the conclusion that 90 percent CCS is, at best, “purely theoretical or experimental.” Specifically:

- The primary project relied upon by EPA in the 2024 rulemaking, the Boundary Dam Unit 3, has captured less than 90 percent, it regularly does not process all of the flue gas, and availability of the capture system is less than 90 percent.
- CO₂ capture at other coal-fired generating units cited in the 2024 rulemaking were in general not an equivalent size to commercial scale or captured far less than 90 percent.
- A capture rate of 90 percent is impractical due to variations in performance caused by issues such as seasonal impacts, solvent degradation and fouling of

²¹ 42 U.S.C. § 7411(a)(1).

²² *Essex Chem. Corp. v. Ruckelshaus*, 486 F.2d 427, 433-434 (D.C. Cir. 1973), cert. denied 416 U.S. 969 (1974).

²³ *Id.*

²⁴ *A Closer Look at EPA’s Powerplant Rule*, U.S. Chamber of Commerce, June 2023, at pg. 11 (citing Regulatory Impact Analysis, Table 3-14), available at: <https://www.globalenergyinstitute.org/closer-look-epas-powerplant-rule>.

²⁵ 90 Fed. Reg. at 25770.

components, and periods of startup, none of which were accounted for in the 2024 rulemaking.

- There are no new post-combustion CCS applications in operation that are achieving 90 percent capture over a calendar year at commercial scale.
- The cost of 90 percent CCS is not reasonable without taking into account the 45Q tax credit, which is a limited-duration credit.
- The existing network of CO₂ pipelines is not capable of meeting the capacity of demands of the 2024 Power Sector GHG Rule.

In sum, the lack of *any* facility in the United States meeting the 2024 Power Sector GHG Rule standard at its time of promulgation or today undercuts any notion by EPA that such standard was “adequately demonstrated.” As such, AISI supports EPA’s finding in the proposed Power Sector GHG Rule Repeal that 90 percent CCS is not “adequately demonstrated” and thus is not appropriate to establish as BSER for the power sector.

AISI appreciates EPA’s consideration of these comments on the proposed Power Sector GHG Rule Repeal. If you have any questions or would like to discuss these comments, please do not hesitate to contact me at 703-969-1789.

Sincerely,



Paul Balsarak
Vice President, Environment