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U.S. Environmental Protection Agency
Attention Docket ID No. EPA–HQ–OAR–2015–0199
EPA Docket Center, U.S. EPA, Mailcode: 28221T
1200 Pennsylvania Avenue, NW
Washington, DC 20460


Ladies and Gentlemen:

On behalf of its U.S. producer members, the American Iron and Steel Institute (AISI) submits to the Environmental Protection Agency (EPA) the following comments on the Federal Plan Requirements for Greenhouse Gas (GHG) Emissions From Electric Utility Generating Units (EGUs) Constructed on or Before January 8, 2014, Model Trading Rules, and Amendments to Framework Regulations, Proposed Rule. Specifically, our comments focus on the implementation of the final Carbon Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, also known as the Clean Power Plan (CPP).

While the proposed CPP would impose direct requirements on the electric utility sector, AISI’s principal concern is that the regulations will lead to higher costs of electricity to large industrial customers like steel, while potentially lessening the quality and reliability of the electric supply that is essential for our industry to operate and succeed. The CPP will put steel producers in the U.S. at a disadvantage against competitors in other nations that generally have higher rates of greenhouse gas (GHG) emissions, and some of which benefit from subsidized energy costs.
Such a result would not only be detrimental to the domestic steel industry and its employees, but to the larger global environment. The policy decisions made as states and regions implement the CPP, including those raised in this proposed federal plan, will have substantial impact on the international competitiveness of the domestic steel industry, our employees, and the overall world environment. AISI believes that Congress and the Administration should instead craft a comprehensive and market-driven energy policy built around promoting greater development of domestic energy sources, incentives for efficiency improvements, and additional support for industry efforts to develop breakthrough technologies.

**Domestic Steel Industry Background**

AISI serves as the voice of the North American steel industry in the public policy arena and advances the case for steel in the marketplace as the preferred material of choice. AISI also plays a lead role in the development and application of new steels and steelmaking technology. AISI is comprised of 19 producer member companies, including integrated and electric furnace steelmakers, and approximately 125 associate members who are suppliers to or customers of the steel industry. AISI’s member companies represent more than three quarters of both U.S. and North American steel capacity.

Steel and other manufacturing industries are the backbone of the U.S. economy. A strong manufacturing sector creates significant benefits for society, including good-paying jobs, investment in research and development, essential materials for our national defense, and high-value exports. The U.S. steel industry operates over 100 facilities employing nearly 143,000 people and producing steel shipments valued at 56 billion dollars. For every one of the steel industry’s direct jobs, the steel sector generates seven jobs in upstream and downstream industries, adding more than 1,000,000 jobs to the economy. Because of steel’s broad range of applications—including renewable energy infrastructure, machinery and equipment, defense, transportation and infrastructure—the industry is vital to our nation’s economic and national security. A robust American steel industry is critical to leading growth and job creation in the domestic economy.

**Steel Production and Energy Consumption**

AISI members continue to make efforts to reduce their energy usage, as well as their environmental footprint, and are leading the way by effectively setting the bar for the steel industry worldwide. The U.S. steel industry has voluntarily reduced its energy intensity by 32 percent since 1990, while reducing its greenhouse gas (GHG) emissions by 37 percent over the same time period. In fact, data presented by the U.S. Department of Energy at a meeting of Global Superior Energy Partnership’s Steel
Task Group show that the steel industry in the U.S. has the lowest energy intensity and second-lowest CO₂ emissions intensity of any major steel producing country.

Nevertheless, the production of steel is inherently energy intensive, and the industry consumes substantial amounts of electricity, natural gas, and coal and coke to make our products. According to AISI member data, in 2014 the domestic steel industry consumed 32.6 billion kilowatt hours (kWh) of electricity, 272.1 billion cubic feet (bcf) of natural gas, and 12.58 million tons of coal. Much of this raw material consumption is for the chemical process involved in steelmaking. Energy-related costs typically comprise 20% or more of the cost of making steel and, as such, maintaining affordable and reliable sources of these energy sources are critical to the international competitiveness of our industry. Regulating the providers of the sources of energy that the industry relies upon to manufacture steel products, such as through the CPP, substantially challenges our success if not written or implemented correctly.

**Domestic Steel Producers Facing Unprecedented Import Crisis**

It is essential to recognize that the steel industry in the United States continues to face a flood of steel imports entering the U.S. market from different regions of the world and in different product lines. The U.S. steel industry is in crisis, as plants are being idled and industry jobs decimated. The surge in imports has effectively decoupled the U.S. steel industry from the modest growth occurring in the rest of the economy. Steel imports increased by 36 percent in 2014 and captured a record 28 percent of our steel market. In 2015, finished steel imports captured 29 percent of the American steel market, an all-time record. U.S. domestic steel mill production has dropped as low as 60 percent of capacity, and has been in the mid-60s for many weeks. According to media reports, there have been announced layoffs of about 12,000 steel industry workers within the year.

The underlying cause for the current crisis is massive global overcapacity in steel production. The Organization for Economic Co-operation and Development (OECD) estimates that there is almost 700 million metric tons of excess steel capacity globally today. In particular, the overcapacity and record level of exports from China is of particular concern. China’s steel industry is almost completely state-owned and state-supported and has an overcapacity of up to 425 million metric tons, and it is expected to continue to grow in the coming years. For context, the U.S. steel capacity in 2015 was 113 million metric tons.
Countries like China, Korea, and Turkey continue to disrupt world markets by subsidizing the production and exportation of steel by their producers. In addition, a number of foreign steel producers are receiving below market rates for electricity purchases, and above market rates for excess electricity sales, which constitute a subsidy. These types of foreign government interventions have contributed to global overcapacity in steel and a surge of steel imports into the U.S. For the steel industry, which operates in the U.S. under tight margins with substantial subsidized competition from overseas, policies that raise energy costs on domestic companies further threaten our competitiveness.

Global Greenhouse Gas Emissions

In light of these competitive challenges for the domestic steel industry, policymakers must recognize that climate change can only be addressed effectively on a global basis. This must be the guiding principle if the United States is to actually lower CO₂ emissions globally and do so without lessening the competitiveness of energy-intensive, trade-exposed domestic manufacturers in the global marketplace. Specifically, the enactment of any CO₂ reduction legislation or regulations in the United States must apply the same level of stringency to other major steel producing nations, such as China, on a contemporary timeline.

The agreement made at the 21st session of the United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP 21) in Paris leaves several substantial problems unresolved. Unless mandated reductions of greenhouse gas (GHG) emissions apply at the same level of stringency in all major steel producing nations, and on a contemporaneous timeline, global GHG reductions will be jeopardized through carbon leakage. Beyond that, a specific commitment to measurement, reporting and verification (MRV) of emissions reductions is critical. Without a true global agreement, the competitiveness of domestic steel producers will be further decreased but overall worldwide emissions will not.

Electricity Supply: Steel Concerns with the Proposed Clean Power Plan (CPP)

The Clean Power Plan will impose direct requirements on the electric utility sector, as well as its customers through potential energy efficiency requirements, and the customers will bear the costs associated with compliance and reliability risks. As we have repeatedly indicated to the EPA, our principal concern is that this will lead to higher costs of electricity to large industrial customers like steel, while potentially lessening the quality and reliability of the electric supply that is essential for our industry to operate and succeed.
NERA Economic Consulting has recently completed an analysis of the economic costs of the CPP to industrial customers entitled “Potential Electricity and Energy Price Outcomes under EPA’s Federal Plan Alternatives for the Clean Power Plan” (“NERA Report”). The report evaluates key energy price outcomes under alternative approaches and policy considerations to implementing the federal plan. A key conclusion of the NERA Report is that in each of the scenarios modelled, significant energy cost increases are to be expected. Specifically, the NERA Report projects average annual retail electricity prices and Henry Hub natural gas prices over the period of 2022 to 2033. The NERA “NewERA” model—an economy-wide integrated energy and economic model that includes a bottom-up representation of the U.S. electricity sector and a top-down representation of all other sectors of the economy, including households and governments—is the basis for evaluating the implications of CPP implementation. The full report is attached to these comments.

Additionally, the impact of other EPA regulations of the utility sector should be recognized in this CPP implementation process as well. These regulations, including the Mercury and Air Toxics Standards (MATS), the Cross State Air Pollution Rule (CSAPR), coal combustion residuals, the new NAAQS ozone emissions standard, and Clean Water Act section 316(b) cooling water intake structures, will impact our industry because of their effect on coal-fired utilities, which threatens the availability and reliability of electricity to large industrial customers like steel. In addition to the specific economic impacts of these collective regulations on our sector and the electric sector, the CPP will necessitate fundamental changes necessary to the production and distribution infrastructure.

In addition to concerns about the potential impact of the CPP on the affordability of essential electricity to the domestic steel industry, AISI members also believe the proposal will negatively impact large industrial customers because we often bear the risks of the reliability of the electric grid. Given the substantial amounts of power that industry facilities purchase, service disruptions are most acutely felt by steelmakers and others in the manufacturing sector. As was the case with the polar vortex in 2014, external events often influence grid reliability and threaten significant energy supply disruptions.¹ This challenging scenario could be further worsened by creating greenhouse gas reduction obligations for existing power plants in addition to the already increasing regulatory burden they current face through the MATS and CSAPR, among others.

In recent months, several organizations with the responsibility to oversee electricity markets and ensure grid reliability have issued analyses highlighting concerns with the potential impacts of the CPP. One example is the North American Electric Reliability Corporation (NERC), which is designed to assess and improve the


Representing steel producers

In Canada, Mexico and the United States
reliability of the North American power system, released and initial review of the proposed CPP on November 5.\(^2\) In its report, NERC identifies the CPP's impacts on the resource components of the national electricity grid, and the potential reliability challenges that would result. The report points out that implementation of the CPP will result in an increased use of natural gas by the utility sector that may overwhelm the current gas production and delivery infrastructure. It also raises concerns that the reliability is inherently inconsistent in both variable resources, such as wind and solar, and distributed resources, such as rooftop photovoltaics.

As discussed above, as a substantial consumer of electricity, the stability and reliability of supply is essential to the success of the domestic steel industry. As states and regions work to implement the CPP, the status of electricity supply to industry facilities in the future must be of paramount importance.

**State-Level Considerations for CPP Implementation**

The economic impact of the CPP will be exacerbated for the steel industry due to the regional differences in current fuel mix and the cost to switch to other fuels for the generation of electricity. Certain areas of the country are better suited for renewable production from wind and solar sources, while others have an abundance of coal sources.

The CPP will have a disproportionate impact on coal-fired utilities, and there is a high correlation between the service areas of those utilities and the location of steel production facilities. The two leading states in terms of iron and steel production in the U.S. are Indiana and Ohio, while other important states for the industry are Alabama, Pennsylvania, Kentucky, and Michigan. All of these states are heavily dependent on coal for electricity production, and in turn, so is our industry. Industrial customers, especially steel producers, will be charged to offset the cost of replacing coal capacity with other sources, including the cost of new transmission infrastructure. These costs will be additive to the competitiveness challenges already faced by the domestic steel industry in the global market detailed above, and will come at the detriment of valuable American manufacturing jobs.

The NERA Report (attached to the end of these comments) illustrates the potential negative ramifications of the CPP, in particular the federal plan, to these states of particular importance to the steel industry. The Report models the impact of the regulation in all affected states, grouping states into various regions.

It demonstrates the substantial electricity and natural gas cost increases that are likely for customers in the Midwest and southeast regions, where most steel in the U.S. is produced. The negative ramifications of the historic level of steel imports into the U.S. have been keenly felt in these states with a substantial presence of coal-fired electricity. EPA and state-level policy makers must ensure that the current economic challenges are not exacerbated with the implementation of the CPP.

**Conclusion**

AISI and its member companies appreciate the ability to provide the perspective of the domestic steel industry on the implementation greenhouse gas reductions mandates for existing power plants, known as the Clean Power Plan. The U.S. steel industry remains significantly concerned that these unilateral regulations of GHGs from electric utilities will threaten the affordability and reliability of electricity supplies to the steel industry. Making steel products in the United States is the most energy efficient place to do so and where greenhouse gas intensity is 37% lower than in 1990 from our sector. As detailed above, the domestic steel industry is subject to historic levels of imports of products from foreign steel makers, who in many cases receive subsidized electricity costs from their governments and generally have higher rates of GHG emissions. The domestic industry is concerned that the GHG emissions regulations from EPA discussed about will put us at a further competitive disadvantage. Such a result would not only be detrimental to the domestic steel industry and its employees, but to the larger global environment, as steel production will be forced to relocate overseas to areas with less stringent environmental regulations than in the U.S. and where steel industries operate with less energy efficiency and greater GHG emissions rates.

Instead of moving forward with these unilateral regulations, AISI believes that Congress and the Administration should craft a comprehensive and market-driven energy policy built around promoting greater development of domestic energy sources, incentives for efficiency improvements, and additional support for industry efforts to develop breakthrough technologies. These policy measures will serve to meet shared national clean energy and manufacturing goals, while avoiding the negative impacts the CPP would have on the industrial sector. In particular, such an agenda should create an abundant and affordable energy supply by developing domestic oil, natural gas, nuclear power, and clean coal resources and fully make all these sources of energy part of the nation’s energy and manufacturing strategy moving forward.
It should also focus on modernizing the nation’s energy production and distribution infrastructure to ensure that energy supply is consistently reliable for the major industrial consumers who rely upon it. As the EPA and state policy-makers make decisions regarding the issues raised above, AISI reiterates the need for policies that focus on the competitiveness of energy-intensive, trade-exposed domestic manufacturers, such as steel. If not, the end result will be that steel production and manufacturing jobs will shift to other nations with weaker, less costly regulations, and where steel production is less energy efficient and more environmentally harmful.

Attachment 1


Sincerely,

Thomas J. Gibson
President and CEO
American Iron and Steel Institute