



October 30, 2018

U.S. Environmental Protection Agency
1200 Pennsylvania Ave. NW
Washington, DC 20460

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Attn: Docket ID No. EPA-HQ-OAR-2017-0355

Re: Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program

The American Coal Council (“ACC”) submits these comments in response to the Environmental Protection Agency’s (“EPA”) Federal Register Notice of August 31, 2018 of its proposed rule, Emissions Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program. The ACC has been in existence for 36 years and represents the collective business interests of the American coal industry. Our members include mining companies and suppliers, transportation companies and terminals, electric utilities and industrial coal consumers, and many industry support services providers. Since our member companies touch every aspect of turning one of America’s most abundant resources into reliable and affordable electricity for the United States economy, our Association has first-hand knowledge of the direct and indirect impacts of coal-related regulations and a unique, “boots on the ground” perspective. Coal is also integral to the steel-making process and the industrial production of cement, chemicals, and paper. Our diverse membership base encompasses the entire coal supply chain, and it is from this broad perspective that we assess the impacts of regulations impacting coal supply and use. While ACC provides these comments from that broad perspective, individual member companies of ACC may submit separate comments on their own behalf that offer additional or other views.

EPA is proposing to replace the Clean Power Plan with revised emissions guidelines, known as the Affordable Clean Energy (“ACE”) rule. The ACE rule will inform the

development, submittal, and implementation of state plans to reduce greenhouse gases from certain electric generating units (“EGU”).

BACKGROUND AND NEED TO RETAIN EXISTING COAL GENERATING PLANTS

ACC previously filed comments with EPA on January 15, 2018 supporting EPA’s proposed rule to repeal the Carbon Pollution Emission Guidelines for Existing Stationary Sources for Electric Utility Generating Units, otherwise referred to as the Clean Power Plan (“Clean Power Plan” or “CPP”), and filed comments on February 26, 2018 on EPA’s advance notice of proposed rulemaking (“ANPRM”), State Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units.

In the January 15, 2018 filing, we referenced our comments previously submitted to EPA in response to the proposed Clean Power Plan, wherein we expressed grave concerns about the detrimental impacts and lack of benefits of regulating greenhouse gas/CO₂ emissions as EPA initially designed the rule. The Clean Power Plan as proposed and later finalized is unworkable – lengthy, complex, ambiguous and over-reaching. With its controversial “outside the fence line” approach, the rule would have transformed how electricity is produced, distributed, transmitted, and used in the United States. It would inappropriately have placed EPA in the role of energy regulator, rather than environmental regulator. Indeed, in the Federal Register Notice about the proposed ACE rule, EPA states “EPA’s area of expertise is control of emissions at the source. EPA is not the expert agency with regard to electricity management.”

ACC’s January 15, 2018 comments on the proposed CPP repeal discussed economic implications and job loss, reliability and resilience, energy independence and security, coal plant efficiency improvements, and air quality and health impacts. As we noted, the CPP would limit fuel choices for electric generators, which has significant implications from an economic, business, and consumer standpoint. Coal is key to maintaining a robust, competitive fuels marketplace which keeps energy priced affordably for consumers, supports grid reliability and resilience, and provides energy security. Implementation of the Clean Power Plan would have unnecessarily stranded and shuttered coal power plants. Investments already made for emissions reduction from those plants would be wasted.

In ACC’s comments of February 26, 2018 on the ANPRM, we urged EPA to consider a regulatory approach in conformity with a traditional interpretation of the Clean Air Act on an “inside the fence line” basis, limiting emissions reductions to measures at the source – a single stationary power generation source or EGU. Further, we urged EPA to employ a traditional interpretation of the Best System of Emissions Reduction (“BSER”) – one that has been adequately demonstrated and considers the cost of achieving the greenhouse gas/CO₂ emissions levels.

ACC is pleased that in its proposed ACE rule, EPA has returned to a more traditional and more appropriate regulatory approach. Decades of precedent support such an approach for emissions reduction under the Clean Air Act. There was no precedent to support the Clean Power Plan approach including its novel BSER that would have applied nationwide across the electricity system rather than at the point source. In practical terms, the CPP was a strategy to force the power sector away from coal, treat natural gas as a bridge or transition fuel, and unwisely and unrealistically rely on energy efficiency and renewables to meet electricity needs 24/7/365.

The United States Supreme Court made a decision to stay the Clean Power Plan due to serious concerns about the rule. Although the rule has not been implemented, even the proposal of such a sweeping, unconventional, and onerous regulation has served as a continued threat to coal power plants. According to the American Coalition of Clean Coal Electricity, about 40% of the U.S. coal fleet that existed in 2010 – nearly 120,000 megawatts – has already been retired or announced to retire and about two-thirds of those are attributable to past EPA policies.¹

Our nation cannot risk the loss of even more coal generation capacity.

Coal plants continue to demonstrate the value of their reliable, resilient and fuel-secure attributes. A report in the spring of 2018 by the Department of Energy's National Energy Technology Laboratory ("NETL") reviewed the winter's "Bomb Cyclone" and found that coal was the most resilient form of power generation across six electricity market regions during this severe weather period. Of the contributions by various assets to meet the surge in demand, coal accounted for more than 55% of the incremental daily generation needed to keep the lights on and avoid electricity shortages.² Availability of coal plants in reserve and their on-site fuel inventories made this response possible.

In PJM, which serves 65 million people including in the mid-Atlantic and Midwest, the value of resilience during the Bomb Cyclone was estimated at \$3.5 billion by NETL.³

As compared to the Clean Power Plan, the EPA ACE rule can help to retain existing coal generating plants, but time is of the essence due to the alarming rate of retirements.

¹ American Coalition for Clean Coal Electricity, "Retirement of Coal-Fired Electric Generating Units", September 26, 2018. <http://www.americaspower.org/wp-content/uploads/2018/07/Coal-Unit-Retirements-September-26-2018.pdf>

² National Energy Technology Laboratory, "Reliability, Resilience, and the Oncoming Wave of Retiring Baseload Units", March 13, 2018, p. 9. https://www.netl.doe.gov/energy-analyses/temp/ReliabilityandtheOncomingWaveofRetiringBaseloadUnitsVolumeITheCriticalRoleofThermalUnits_031318.pdf

³ *Ibid.*

FEDERAL-STATE REGULATORY ROLES UNDER ACE

In the proposed ACE rule, EPA sets forth the framework for complementary state-federal regulatory roles, with EPA having the responsibility to determine a nationally applicable BSER and states having the responsibility to establish and apply the standards of performance in consideration of source-specific factors.

As such, EPA would provide guidelines to states to inform the states' development, submittal, and implementation of state plans consistent with the application of the BSER. The states would develop, submit, and implement their plans and EPA would review plans submitted by states to determine whether they are approvable.

This is a better approach than under the CPP, and it appropriately rebalances federal and state roles, aligning them with the system of shared authority under the Clean Air Act.

The ACE rule also provides necessary flexibility for each state to determine what is reasonably achievable for greenhouse gas reductions by affected facilities in the state and develop standards of performance accordingly. EPA could consider providing additional clarity about its intent regarding the guidelines to states – that its intent is to provide information to states in the guidelines so the states can establish standards consistent with EPA's BSER that are cost-effective and achievable, and that the guidelines to states do not establish any specific level of stringency. EPA has recognized that the New Source Review ("New Source Review" or "NSR") program has been a barrier to coal plant upgrades and improvements for a multitude of reasons including because it drives up the costs. Thus NSR issues must be addressed in order to provide a workable foundation for efficiency improvements to be implemented widely and on a cost-effective basis to comply with the ACE rule. More broadly, this will help retain coal units as part of our nation's generation mix. NSR reform is discussed by ACC later in these comments.

The ACE rule allows states to set specific standards for affected facilities with consideration of the design and operating conditions and remaining useful life. It allows states to use emissions averaging across electric EGUs at an affected source, providing additional flexibility to states and affected sources. It does not provide for multi-plant trading or averaging.

EPA should make it clear to states that they may not develop federally-enforceable state programs, such as the Regional Greenhouse Gas initiative and state mass-based limitations on power Sector CO₂ emissions, that are not authorized under Clean Air Act Section 111. Only state programs adopted pursuant to the ACE rule and that are consistent with it and its BSER should be deemed to be federally enforceable. Any state

requirements going beyond EPA's designated BSER can only be enforceable at the state level.

EPA also provides flexibility for the timelines for states to develop and seek approval of their state plans, and this is appropriate in the context of the many and increasingly complex air quality requirements over time that states are contending with.

BEST SYSTEM OF EMISSIONS REDUCTION UNDER ACE

In the ACE rule, EPA proposes to determine the BSER on the basis of efficiency improvements, also referred to as heat rate improvement measures ("heat rate improvements" or "HRI") that can be applied at an affected coal source to make it as efficient as possible. This is appropriate and it stands in stark contrast to the generation-shifting approach of the CPP.

In the Federal Register Notice on the ACE rule, EPA noted that fundamentally redefining the source should not be a basis for emissions reduction – "For purposes of ACE, therefore, we did not consider natural gas repowering (*i.e.*, converting from a coal-fired boiler to a natural gas-fired turbine) or refueling (*i.e.*, converting from a coal-fired boiler to a natural gas-fired boiler) as a system of emission reduction for coal-fired steam generating units". Also in the Federal Register Notice, EPA reiterated that ".....reduced utilization is not a valid system of emission reduction for purposes of establishing a standard of performance". ACC agrees that the BSER must not allow redefining the source or reduced utilization. This is appropriate considering the objectives of the ACE rule, and it will also help to avoid further coal plant shutdowns and support fuel diversity in the nation's generation fleet.

Due to a multitude of cost and feasibility considerations, EPA continued to determine with the ACE rule as it had previously that co-firing (of natural gas or biomass) is not an appropriate BSER technology option. This is also consistent with the position that BSER should not redefine the source, since co-firing is basically a partial fuel conversion.

Likewise, EPA also proposed in the ACE rule that carbon capture and sequestration ("CCS") or partial CCS not be part of the BSER. While progress has been made since the CPP was issued, CCS is neither adequately demonstrated nor sufficiently cost effective to be widely deployed for complying with the ACE rule. However, its current very narrow use should be allowed as part of a compliance program as should its future use if CCS becomes scalable and cost effective.

Thus, EPA concludes that HRIs are the only technology applications for greenhouse gas emissions reduction in the coal fleet that are adequately demonstrated and cost effective.

Specifically, EPA identifies and proposes a list of the “most impactful” HRI measures including technologies, equipment upgrades, and best operating and maintenance practices that comprise its list of “candidate technologies” in the proposed ACE Rule:

- Neural Network/Intelligent Sootblowers
- Boiler Feed Pumps
- Air Heater & Duct Leakage Control
- Variable Frequency Drives
- Blade Path Upgrade (Steam Turbine)
- Redesign/Replace Economizer
- Improved O & M Practices

Coal EGUs vary in age and operating performance. Additionally, continuing changes in the fleet make-up and dispatch mean that many coal units are operating with increasing frequency as cycling units rather than as baseload. The multitude of differences in units and operational performance characteristics support the unit-specific approach contemplated by the ACE rule.

EPA has asserted in the proposed ACE rule that it would be overly burdensome for states to be required to assess the HRI potential of every possible identified HRI measure including those with negligible benefits.

EPA’s identified group is reasonable and should be considered the core group for states and owners/operators of affected sources to evaluate for compliance planning. There may be opportunities to utilize other HRIs for a significant number of affected sources.

Best Operating and Maintenance practices may also include others besides those EPA identified which were HRI training for O&M staff, performing on-site appraisals to identify areas for improved heat rate performance, and improved steam surface condenser-cleaning. For example, additional measures can include best practices for stockpile management, practices to reduce oxidation of coal, and coal handling to minimize moisture.

As far as the measurement of emissions, EPA’s proposed ACE rule would rely on a pounds of CO₂ per megawatt-hour standard of performance. This standard appropriately provides the basis for determining whether the unit’s efficiency has improved.

NEW SOURCE REVIEW REFORM UNDER ACE

EPA has recognized that reform of the New Source Review or NSR pre-construction permitting program is very important to the power sector’s ability to plan for and implement

HRIs needed for compliance with the ACE rule. NSR uncertainty and delays have existed for many years, negatively impacting costs and thwarting positive outcomes.

NSR has been a huge deterrent to projects at coal units that would improve efficiency and emissions profiles as well as economics. The current annual emissions test for efficiency projects is a problem. While improving a unit's efficiency could decrease the hourly CO₂ emissions rate, it could theoretically increase annual emissions if the unit operates more hours during the year due to a better operating cost profile. Efficiency improvement projects resulting in lower emission rates should not be foregone simply because, in addition to lowering emissions, a unit will also generate electricity more economically. Therefore, the ACE proposal to add an hourly emission applicability test is a necessary part of NSR reform but must be appropriately designed to best assess whether an efficiency improvement project has or will cause an increase in the maximum hourly emission rates.

Also, EPA should consider adding a provision to clarify that NSR permitting is not required if hourly emissions are increased as a result of changes unrelated to the efficiency improvement project, such as a change in coal characteristics or increased electricity demand.

COST AND CO₂ REDUCTION IMPACTS UNDER ACE

EPA projects that replacing the CPP with the ACE rule could result in \$3.4 billion in net benefits of CO₂ emissions reductions, including \$400 million annually during the period 2023 through 2037.

EPA projects that the ACE rule will reduce CO₂ emissions in 2025 by a range of 13 to 30 million tons. EPA estimates that when the ACE rule is fully implemented, U.S. power sector CO₂ emissions could be around 34% below 2005 levels.

In its "Fact Sheet" on CO₂ emissions trends, EPA notes that CO₂ emissions are declining due to market forces, technology improvements, and regulatory and policy changes. The use of natural gas and renewables has increased. EPA states "These trends have resulted in CO₂ emissions reductions even as the U.S. has sustained economic growth and job gains across the economy—and this has all happened without the CPP ever going into effect."

ACC believes it should be acknowledged that CO₂ emissions reductions will be negligible in the overall context of global CO₂, whether under either the CPP or ACE rule.

In a recent article by Nikos Tsafos of the Center for Strategic and International Studies, the author noted that the Asia Pacific region accounted for 75 percent of the world's 2017 coal

consumption according to the BP Statistical Review of World Energy.⁴ This includes China and India. It also includes Indonesia, Taiwan, Vietnam, Malaysia, Thailand, Philippines and Pakistan – and Tsafos points out that energy demand in these countries continues to increase, energy use on a per capita basis is low, and electrification rates and electricity consumption are rising.⁵

Two trends are clear – U.S. CO₂ emissions from the power sector have been decreasing, and CO₂ emissions from the power sector in much of the rest of the world have been increasing and will continue to. This begs the question of whether EPA regulation for CO₂ emissions reduction from coal plants in the U.S. is appropriate and necessary from a public policy perspective.

Additionally, there is no corollary requirement for reduction from U.S. natural gas plants, despite the impending rise of CO₂ and methane emissions due to projected higher consumption by existing and new natural gas plants. In contrast, coal consumption has already been decreasing significantly. Most of the loss in consumption is a permanent loss of demand due to the closure of so many coal plants, and there are no plans for new coal plants.

From a public health perspective, EPA has an opportunity with the ACE proposal to clarify the context of the health impacts of the Rule. Some groups and individuals are using specific data points in the Regulatory Impact Analysis (“RIA”) to advance the position that replacing the CPP with ACE will harm public health. EPA’s RIA provides its methodology and calculations. It would be helpful for EPA to provide additional explanation and context around the results, which do substantiate that replacing the CPP with ACE will not materially impair public health or welfare.

CONCLUSION

The American Coal Council appreciate this opportunity to provide our perspective on EPA’s proposed ACE rule, which we support in the context that it is far better and more appropriate from a feasibility, legal, and cost standpoint than was the CPP. As compared to the CPP, the EPA ACE rule can also help to retain existing coal generating plants which is important to providing affordable, reliable, and resilient electricity for all Americans.

⁴ Nikos Tsafos, “The Center of Coal Demand Keeps Shifting”, October 15, 2018, p. 2.

⁵ *Id at p. 4-5.*