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U.S. Environmental Protection Agency
Air and Radiation Docket and Information Center
Mail Code 2822T
1200 Pennsylvania Ave., NW
Washington, DC 20460

**Re: Standards of Performance for Greenhouse Gas Emissions from New
Stationary Sources: Electric Generating Units;
Docket ID No. EPA-HQ-OAR-2013-0495**

The American Coal Council (ACC) submits these comments in response to the Environmental Protection Agency's (EPA) Proposed Carbon Pollution Standards for New Power Plants. The ACC has been in existence for 32 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 new coal-related regulations and a unique, "boots on the ground" perspective. We are concerned about the detrimental impacts and lack of benefits of these proposed regulations for all Americans.

INTRODUCTION

With nearly 28% of global coal reserves, the United States has more coal than any other country in the world.¹ Coal today is responsible for about 40% of U.S. electric generation, more than any other fuel source.² Our American economy and way of life have long reaped the benefits of coal-based electric generation:

Coal has historically been the lowest cost, most abundant, and most reliable energy source.

Coal provides good jobs – over 800,000 direct and indirect jobs.³

Coal provides economical electricity – states using coal have the benefit of electricity rates that are on average 33% lower than other states.⁴ The following comparison illustrates an even more dramatic difference: California, with virtually no coal use, has electricity costs 62% higher than Missouri where coal accounts for nearly 80% of electricity production.⁵

Coal power plant emissions continue to decline – emissions per kilowatt-hour of sulfur dioxide, nitrogen oxides, and particulate matter have decreased by approximately 89% over the period 1970-2012.⁶ Carbon dioxide emissions from coal power plants are nearly 24% below 2005 levels.⁷

With its “Standards of Performance for Greenhouse Gas Emissions from New Stationary Sources: Electric Utility Generating Units”, EPA is setting the stage for significantly altering the U.S. energy mix, and indeed, its energy policy. This proposed rule requires all new coal-fueled power plants to meet a standard of 1,100 lbs. CO₂ per megawatt-hour (MWh) and all new natural gas-fired power plants to meet a standard of either 1,000 lbs. CO₂/MWh (for larger units) or 1,100 lbs. CO₂/MWh (for smaller units). These new standards effectively take coal off the table as an option for new generation resources. Implementation of the rule will reduce American energy diversity and security, stop the development of cleaner coal technologies, and increase the risk of higher electricity prices to consumers and businesses. Moreover, it will “result in negligible CO₂ emissions changes”, as the EPA concluded.⁸

ACC is gravely concerned about the widespread impacts of the standards as proposed. We believe there are four key areas that must be addressed:

- the rule’s lack of a meaningfully different standard between coal and gas, which will reduce energy competition, diversity, security, and reliability by eliminating coal and increasing natural gas
- the impacts on jobs, consumers, and businesses and manufacturers, with the rule causing job loss, increasing energy prices, lowering living standards, and limiting business and manufacturer’s ability to compete
- the rule’s requirement for Carbon Capture and Storage (CCS) and EPA’s assumption that CCS is feasible and has been adequately demonstrated, which will serve only to thwart the development of CCS and cleaner coal technology
- the unilateral approach for reducing U.S. carbon emissions absent a global approach and commitments, which will affect our nation’s ability to compete internationally and will result in very little impact on global carbon emissions due to other countries greatly increasing coal generation to benefit their citizens and economies

IMPLICATIONS OF COAL, NATURAL GAS, AND REDUCED ENERGY DIVERSITY

EPA asserts that the economic impact of the proposed standards for new power plants is insignificant because utilities are choosing to build plants fueled by natural gas instead

of coal, due to low natural gas prices. However, they are also building gas plants because EPA's burdensome, costly regulations contribute significantly to utilities' decisions to move away from coal towards gas. EPA is picking winners and losers in the energy economy of the future, and this will impose undesirable and unnecessary risks for American businesses and consumers. EPA apparently assumes that natural gas will remain a low cost fuel in perpetuity. The fact is, no one can predict what market prices will be, especially three, five, ten or more years down the road. Unforeseen events can trigger major changes in the supply, demand and price of energy commodities. That is the reality of the marketplace. ACC only needs to point to the example of this winter (2013-2014), as periods of colder weather pressured natural gas prices and increased electricity costs. The U.S. Energy Information Administration (EIA) reported that natural gas spot prices averaged \$6.00/MMBtu at the Henry Hub in February.⁹ This is 140% higher than the Henry Hub price of \$2.50/MMBtu just two years ago in February, 2012.¹⁰ Weekly and daily price spikes at the Henry Hub and other regions occurred frequently during January and February and extended into early March with Henry Hub pricing reported by EIA at \$7.90/MMBTU on March 4th.¹¹ Even after winter's end, with temperatures moderating and consumption decreasing, natural gas pricing remains high. The Henry Hub price level was reported at \$4.78/MMBTU as of April 30, 2014 by EIA.¹² This price is nearly 150% higher than the Henry Hub average price of \$1.95/MMBtu in April, 2012, per EIA data.¹³ The chart below from EIA illustrates the natural gas price volatility.¹⁴ It effectively demonstrates and validates ongoing price volatility concerns.

Natural gas spot prices (Henry Hub)



 Source: Natural Gas Intelligence

Additionally, some other regions saw even more dramatic pricing impacts, as electricity prices rose in response to cold weather, natural gas experienced deliverability issues, and there were unanticipated electric generating plant outages. The EIA chart below shows the price impacts in the PJM electricity region which encompasses much of the mid-Atlantic and Midwest; day-ahead, average on-peak power prices spiked to \$268.84/MWh in early January while natural gas prices spiked to \$33.53/MMBtu. Additionally, real-time, hourly power prices spiked to about \$800/MWh during the January 7-8 period according to EIA.¹⁵

In the Northeast region, a region known to have natural gas infrastructure constraints, power prices at the Massachusetts Hub escalated to \$237.75/MWh during early January according to EIA. This price was primarily driven by changes in natural gas prices as the demand for natural gas rose on insufficient natural gas pipeline capacity and supply. EIA further reported that natural gas prices at the Algonquin Citygate trading point in Massachusetts increased to \$38.09/MMBtu in early January.¹⁶

Additionally, natural gas supply into New York City was constrained, with price spikes beginning in early January. Spot natural gas prices there reached as high as \$47.80/MMBtu. According to EIA, power prices reached \$233.59/MWh on January 8, 2014.¹⁷

An important element of physical and plant management that must be highlighted here is that unlike coal, gas cannot be stored in inventory at power plants to quickly respond to changes in generation demand. Therefore, the effects of a supply disruption to natural gas plant operations and thus dispatch availability are immediate.

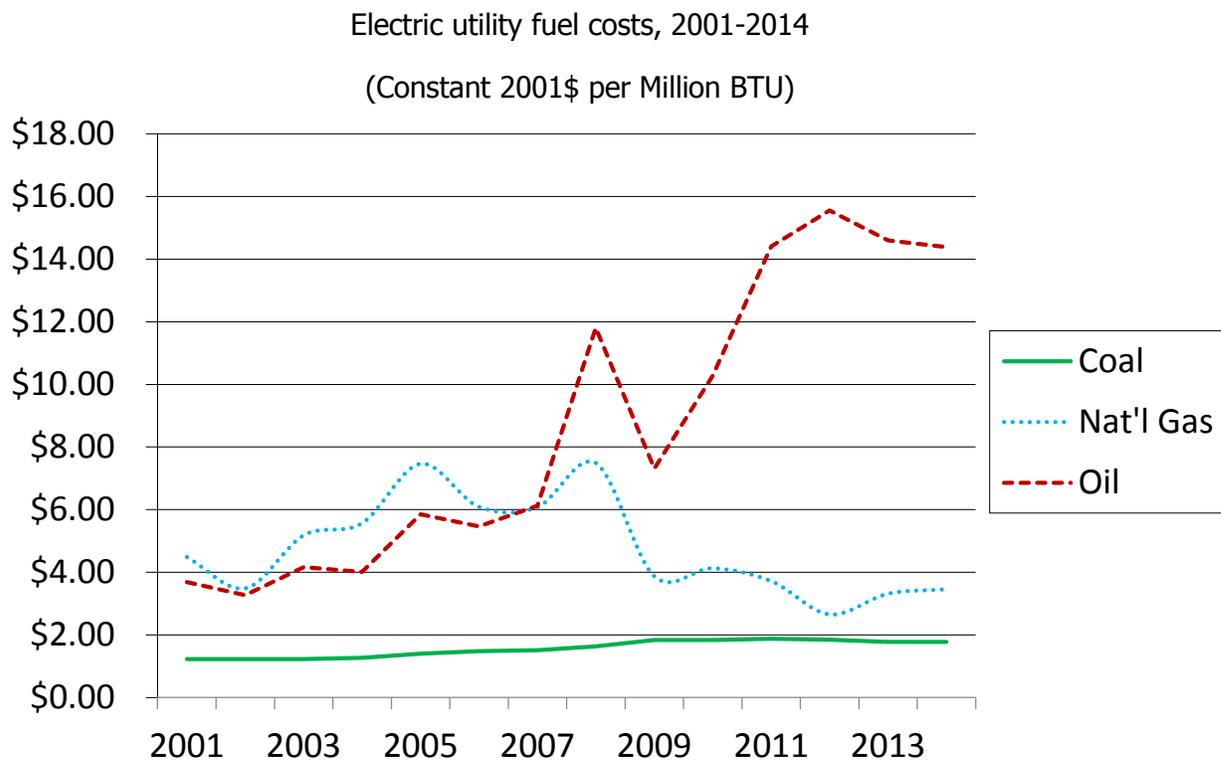
Electricity prices had been masked in the short run by very low natural gas prices, but as illustrated by this winter's experience, gas prices will climb in a demand-driven market – and natural gas dynamics will take on even greater urgency because the effects on electricity costs for consumers in the future will be magnified without coal as a viable alternative.

The importance of coal as an essential and cost-effective energy source contributing to the U.S. economy is illustrated by examples from the National Association of Manufacturers (NAM). In Indiana, manufacturing is responsible for 28.2% of the state's economy. This is the highest share in the nation. 81% of Indiana's electricity is generated from coal.¹⁸ Ohio is third in the nation in manufacturing employment and fifth in the nation in energy consumption by the industrial sector. Wholly 72% of Ohio's electricity is generated from coal.¹⁹ Affordable electricity is vital to the success of U.S. manufacturers, and a diverse energy mix underpins that. Coal is the critical component of that diverse mix and facilitates our manufacturers' competitive advantage. Unnecessarily distorting the energy markets away from coal does not bode well for competitive, stable electricity prices. Lacking competitive, stable electricity prices,

manufacturers and businesses will be driven offshore at best and out of business at worst.

For American families, the consequences of a shift in the energy mix away from coal are equally concerning. The longest running recession in U.S. history has already caused great hardship for families. The cost of energy as a percentage of pre-tax income in the last decade has nearly doubled for the middle class.²⁰ Six in ten Americans say a \$20 per month increase in utility bills would create hardship.²¹ One in three Americans qualifies for energy assistance.²² Pushing more Americans towards having to choose between food or medicine or fuel – with negligible environmental results by EPA’s own admission – is untenable. Higher energy prices are regressive and will have the biggest impact on those who can least afford it.

The chart below illustrating electric utility fuel costs for the period 2001-2014 demonstrates the importance of coal in terms of both its low price and price stability over time in comparison to other fuel sources.²³



In addition to price impacts to consumers, the electric grid reliability issue looms large, especially with the impending shutdown of coal generation plants to comply with EPA MATS rules. Coal plants were key in enabling electric generators to meet electricity demand and avoid brownouts or blackouts during cold weather this 2013-2014 winter. American Electric Power’s (AEP) Chairman, President, and CEO Nick Akins has stated that 89% of AEP’s generation planned for retirement in 2015 was running in January to

meet demand in the PJM electricity region. In his recent April 10, 2014 testimony before the Senate Energy and Natural Resources Committee at its hearing on grid reliability and security, Mr. Akins also said “The weather events experienced this winter provided an early warning about serious issues with electric supply and reliability. PJM was not alone. Many of the Regional Transmission Organizations (RTOs) and Balancing Authorities need to call on Emergency Procedures to ensure reliable operations. This country did not just dodge a bullet – we dodged a cannon ball.” Further, he testified that AEP plans to retire 6,586 megawatts (nearly one fourth) of its coal generation capacity, with most of those retirements occurring in mid-2015. In PJM, he stated that 12,909 megawatts of capacity is scheduled to retire within two years. Mr. Akins cautioned that capacity replacements may not provide the same level of reliability experienced historically.”²⁴

Others, including those in the regulatory arena, are expressing concern about this close call and the ability to reliably meet electric demand. At an April 1, 2014 Federal Energy Regulatory Commission (FERC) Technical Conference, FERC staff presented their analysis of the natural gas and electricity markets during the “conditions of severe stress and market pressures” this winter, stating “The RTOs and ISOs declared emergency conditions on several occasions and some implemented emergency procedures, including emergency demand response, voltage reduction, emergency energy purchases, and public appeals for conservation.”²⁵ FERC’s Acting Chairman Cheryl LaFleur stated in testimony before the Senate Energy and Commerce Committee on April 10, 2014, “Indeed, I believe that reliability is job one, a fundamental responsibility for FERC and the electric industry. From my past experience working directly for electricity and natural gas customers, I know firsthand how hard even a short outage can be on families, businesses, and communities. And a major interruption in service could have devastating effects on our nation’s citizens and economy, whether it is caused by severe weather, a cybersecurity incident, or a physical attack.”²⁶

As starkly evidenced by the recent natural gas and electricity marketplace dynamics, purposefully moving away from coal and away from energy diversity is an irresponsible policy choice for America.

FEASIBILITY OF CCS AND IMPACTS TO CLEANER COAL TECHNOLOGIES

Any New Source Performance Standard must be achievable using the best system of emissions reduction (BSER) that the Administrator determines has been adequately demonstrated, and must consider cost. However, the lack of any commercial-scale power sector coal plants with operational CCS indicates the technology has not been adequately demonstrated and currently cannot be assumed to be achievable, contrary to EPA’s position. While development of the technology is promising, regulation must be reasonable and prudent. It must not get ahead of technology. This would be a departure from past practice and a bad precedent. In setting NSPS for fossil fuel-fired electric

generating units, EPA has historically based standards on adequately demonstrated technologies deployed at numerous fossil fuel-fired electric generating units utilizing a variety of coals and operating under varying conditions. For example, in requiring the use of Selective Catalytic Reduction (SCR) technology to control NO_x emissions, the EPA first identified at least 212 worldwide SCR installations on coal-fired units, which cover different types of boilers subjected to varying conditions and firing a variety of coals. (63 Fed. Reg. 49442, 49445 (Sept. 16, 1998)).²⁷ Additionally, in requiring Flue Gas Desulfurization (FGD) technology as part of its SO₂ NSPS, EPA relied on the installation and operation of FGD technology at dozens of power plants throughout the United States. (62 Fed. Reg. 36948, 36950 (July 9, 1997)).²⁸

The Energy Information Administration (EIA) estimates the overnight capital cost to build a new integrated gasification combined cycle (IGCC) coal plant with CCS to be \$6,599 per kilowatt.²⁹ This is more than six times the price of a new natural gas combined cycle unit without CCS. It is more expensive than hydro, solar, onshore wind, and nuclear options. In short, EPA's standard for coal – which by its definition must be adequately demonstrated and consider cost – is far too expensive for anyone to consider building a new coal plant.

EPA's presumption that the rule drives technology and that costs will decrease over time does not hold up since the rule dramatically tilts the playing field away from new coal plants and will prohibit the construction of new facilities where those technologies would be employed. Why would developers continue down the CCS and clean coal technology path? Utilities are pushed to make other decisions for generating capacity given the costs and constraints of CCS. Without ongoing, meaningful governmental support for CCS to propel development beyond first generation technologies and a reasonable timeline to achieve development, too many obstacles and too much uncertainty exists for private developers to move forward. Department of Energy (DOE) programs for federal investments in technologies to reduce emissions have played an essential role for decades, and that role should continue for carbon reduction technologies. Public and private investments to develop mature technologies should be encouraged. However, this EPA rule will have the opposite effect.

Absent a push for new technologies, the U.S. will lose on many fronts. Other countries not bound by the EPA's rules and regulations will continue to take advantage of coal's low cost and abundance, developing generation fleets without CCS and with far weaker environmental standards for other pollutants. They will produce low cost electricity for their consumers and emissions will increase. This will overwhelm any efforts by the U.S. to reduce carbon emissions or other emissions, and it will diminish the ability of American businesses to compete internationally. Other countries will also forge ahead with coal technology development and sales around the world. The U.S. will have lost the opportunity to innovate and will cede our global leadership role in developing CCS and other clean coal technologies.

There is no upside to the rule as written. EPA should go back to the drawing board on BSER. The assumptions on which the proposed rule is based are fundamentally flawed and fundamentally skewed against coal.

GLOBAL COAL USE AND CO₂ & GREENHOUSE GAS EMISSIONS

Globally, coal accounted for 39% of electricity generated in 2012, followed by natural gas at 23%.³⁰ The U.S. demand for coal in 2012 represented about 12% of total global coal consumption.³¹ Asia, on the other hand, consumes more than six times as much coal as the U.S. and represents 70% of global coal consumption.³²

Consider the following:

- Since 2005, China's CO₂ emissions have grown by 64%.³³
- Since 2005, U.S. CO₂ emissions from all electric power sector sources decreased by about 16%, and CO₂ emissions specifically from coal were down nearly 24%.³⁴
- By 2035, global coal consumption is projected to grow by about 40%, with non-OECD Asia's demand increasing by 58%.³⁵
- By 2040, non-OECD emissions of CO₂ will rise by 70% and account for 70% of global CO₂ emissions.³⁶
- By 2040, the U.S. will account for only 13% of global CO₂ emissions, down from 17% in 2012, without any additional regulations.³⁷
- The U.S. coal fleet currently accounts for only about 4% of global greenhouse gas emissions.³⁸

In a study recently released by the American Coalition for Clean Coal Electricity on the societal benefits of fossil energy, it is reported that global life expectancy over the past 250 years has more than doubled and incomes have increased 11-fold in large part due to increased energy production and delivery, most of which has been fossil-based.³⁹ Coal is the world's fastest growing energy source and has increased nearly as much as all other sources of fuel combined.⁴⁰ Much of the growth is in China and India, which are just beginning to attain the benefits of reliable, affordable electricity. Still, in India over 400 million people have no electric power, 600 million cook with wood or dung, and more than 900 million have no refrigeration.⁴¹ The study cites International Energy Agency (IEA) data that today more than 1.5 billion people globally have no electricity, and an additional 2 billion have extremely limited access.⁴²

It is expected that coal will continue to be the leading feedstock for electricity generation around the world for at least the next three decades. Emerging economies will electrify and they will continue to choose low cost, abundant coal as the path to progress for their citizens. This underscores all too well that, absent a global approach, any course taken

by the U.S. to reduce greenhouse gases will not meaningfully impact global greenhouse gas emissions.

CONCLUSION

The U.S. has already invested about \$118 billion to improve air quality, reducing conventional emissions of SO₂, NO_x, and particulate matter by approximately 89% since 1970.⁴³ Technology development was largely in step with these reductions. In more recent years, U.S. electric utilities have faced a huge number of environmental regulations on all fronts – air, water, and waste – which have contributed to widespread shuttering of existing coal generating capacity. According to the American Coalition for Clean Coal Electricity, EPA’s rules have contributed to the closure of over 300 existing coal units totaling more than 50,000 megawatts of electric generating capacity.⁴⁴ Additionally, the regulatory uncertainty caused by the April 2012 precursor to EPA’s currently-proposed GHG rule had the effect of stopping development plans for most of the approximately 15 plants that had received a PSD permit but not begun construction, in spite of the exemption EPA included in that proposed rule.⁴⁵ When EPA did not propose that rule within a year and instead re-proposed it in 2013 without any exemption for transitional sources, the impact was fully manifested.⁴⁶

In addition to the ongoing impacts of regulation already promulgated by EPA, proceeding down a regulatory path which effectively prohibits the development of new coal generation is extreme and ill-advised. Such a path unnecessarily risks U.S. energy reliability, affordability, security and diversity for virtually no identified benefits. It puts at risk more than 800,000 coal related jobs as well as our business and manufacturing base. It inflicts the risk of rising electricity prices on all people and businesses, but most importantly on those who can least afford it such as the poor and those on fixed incomes. To those who proclaim it is a moral imperative to address climate change, we ask “Where is the moral imperative to provide reliable, affordable energy and good jobs in America?”

Given the widespread and detrimental impacts of this rule as proposed, the American Coal Council urgently requests that EPA significantly revise it to address the concerns and shortcomings outlined above.

Endnotes:

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