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U.S. Environmental Protection Agency
EPA Docket Center
Mail Code 28221T
1200 Pennsylvania Ave. NW
Washington, DC 20460

Attn: Docket ID No. EPA-HQ-OAR-2008-0699

Re: National Ambient Air Quality Standards for Ozone Proposed Rule

The American Coal Council (ACC) submits these comments in response to the Environmental Protection Agency's (EPA) proposed National Ambient Air Quality Standards (NAAQS) for ozone. The ACC has been in existence for 33 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. They touch every aspect of turning one of America's most abundant energy resources into reliable, affordable electricity for the United States economy. Coal is also integral to the steel-making process and the industrial production of cement, chemicals, and paper. This broad, diverse membership base provides our Association with first-hand knowledge of the direct and indirect impacts of new regulations impacting coal as well as a unique, "boots on the ground" perspective.

EPA's proposed NAAQS for ozone is yet another example of a misguided federal approach on air quality and a needless piling on of government regulation. It will fail to deliver anything but massive costs and hardship for businesses, manufacturers, families, and state and local governments. Virtually no sector of the American economy will escape the reach of this rule. Furthermore, it is unnecessary and premature to set a more stringent new standard; EPA concluded in 2008 that a 75 parts per billion (ppb) ozone standard protects American health, and that standard is still being implemented.

ACC is very concerned that EPA continues to propose air quality rules that fail to consider economy-wide repercussions, rely on unknown, unidentified, or unachievable controls and technology for compliance, inappropriately assess health costs and benefits,

utilize problematic assumptions, and lack transparency. This rule, as with others before it, is proposed by EPA without adequate consideration of the cumulative impacts of other existing and pending regulations. EPA also proposes this rule without sufficient recognition of international implications – in this case, ozone emissions coming into the United States from other countries.

Economy-wide Repercussions

A July 2014 study by NERA Economic Consulting (NERA) for the National Association of Manufacturers (NAM) analyzed a 60 parts per billion (ppb) ozone standard and found huge costs and negative impacts to the economy, employment, and households. These included U.S. GDP reductions of \$270 billion per year, a loss of 2.9 million job equivalents annually, and a decrease of \$1,570 in average household consumption annually. It also included cost increases for electricity of up to 5.5% and for natural gas up to 12% in the base case, and cost increases for electricity of up to 23% and for natural gas up to 52% in the sensitivity case which included potential constraints of natural gas production due to expanded areas of nonattainment of the proposed ozone standard.¹

EPA proposed its NAAQs for ozone at a range of 65 to 70 ppb on December 17, 2014, while also asking for comment on a 60 ppb standard. Costs for the 65 ppb standard were estimated at \$15 billion annually by EPA², but this estimate did not include economy-wide repercussions. NERA's July 2014 study for NAM was updated and released in February, 2015. The updated NERA study analyzed a 65 ppb standard and again found very severe economic impacts. These included GDP reductions of \$140 billion annually and a total of \$1.7 trillion from 2017 to 2040, a loss of 1.4 million job equivalents per year, and a decrease of \$830 in average household consumption annually.³ It also included cost increases for electricity of up to 2.8% and for natural gas up to 6.3% in the base case.⁴ NERA noted that time constraints did not allow for conducting a similar sensitivity analysis to that done in July 2014 evaluating potential constraints of natural gas

¹ NERA Economic Consulting, "Potential Economic Impacts of a Stricter Ozone Standard", July 2014, at <http://www.nam.org/Issues/Environment/Ozone-Regulations/Ozone-Report-Executive-Summary-20140730.pdf>

² Environmental Protection Agency news release "EPA Proposes Smog Standards to Safeguard Americans from Air Pollution", November 26, 2014.

³ NERA Economic Consulting, "Economic Impacts of a 65 ppb National Ambient Air Quality Standard for Ozone at <http://www.nam.org/Issues/Energy-and-Environment/Ozone/Economic-Impact-of-Proposed-EPA-Regulation.pdf>

⁴ NERA Economic Consulting, "Economic Impacts of a 65 ppb National Ambient Air Quality Standard for Ozone" at [http://www.nam.org/Issues/Energy-and-Environment/Ozone/Economic-Impacts-of-a-65-ppb-NAAQS-for-Ozone-\(NERA\).pdf](http://www.nam.org/Issues/Energy-and-Environment/Ozone/Economic-Impacts-of-a-65-ppb-NAAQS-for-Ozone-(NERA).pdf), p. S-13.

production due to expanded areas of nonattainment of the proposed ozone standard in the updated study.⁵

Reliance on Unknown, Unidentified, or Unachievable Controls and Technology

To achieve the 60 ppb standard in NERA's July 2014 report, large reductions in nitrogen oxides (NOx) would be required. Power plants, industrial plants, autos, agriculture, and commercial and residential buildings will be affected. NERA reported that EPA had only identified about one-third of the controls required to meet a 60 ppb standard.⁶ With two-thirds of the controls unknown, it would be exceedingly expensive and potentially impossible to comply.

To achieve the 65 ppb standard in NERA's updated report, large reductions in nitrogen oxides (NOx) would still be required, and more than half of the needed reductions would come from unidentified compliance measures.⁷

As noted by NERA in its update, U.S. NOx emissions have already been reduced by from 25.2 million tons in 1990 to 12.9 million tons in 2013 and EPA projects continuing declines to 8.2 million tons in 2025. NERA suggests that due to projected increased economic activity in 2025 of more than double the 1990 level, NOx sources will have been controlled by over 80% by 2025 without a lowering of the NAAQS for ozone.⁸

Cumulative Impacts of Other Existing or Pending EPA Regulations

A study done by Energy Ventures Analysis (EVA) in November 2014 prior to EPA's proposed new ozone rule incorporates the cumulative cost impacts of EPA regulations including MATS, regional haze, and the Clean Power Plan. It projects residential, industrial, and commercial customers will pay over \$284 billion more in 2020 for electricity and natural gas than in 2012, a 60 percent increase.⁹ The average household

⁵ NERA Economic Consulting, "Economic Impacts of a 65 ppb National Ambient Air Quality Standard for Ozone", February 2015, at [http://www.nam.org/Issues/Energy-and-Environment/Ozone/Economic-Impacts-of-a-65-ppb-NAAQS-for-Ozone-\(NERA\).pdf](http://www.nam.org/Issues/Energy-and-Environment/Ozone/Economic-Impacts-of-a-65-ppb-NAAQS-for-Ozone-(NERA).pdf), p. S-2.

⁶ NERA Economic Consulting, "Potential Economic Impacts of a Stricter Ozone Standard", July 2014, at <http://www.nam.org/Issues/Environment/Ozone-Regulations/Ozone-Report-Executive-Summary-20140730.pdf>

⁷ NERA Economic Consulting, "Economic Impacts of a 65 ppb National Ambient Air Quality Standard for Ozone", February 2015, at [http://www.nam.org/Issues/Energy-and-Environment/Ozone/Economic-Impacts-of-a-65-ppb-NAAQS-for-Ozone-\(NERA\).pdf](http://www.nam.org/Issues/Energy-and-Environment/Ozone/Economic-Impacts-of-a-65-ppb-NAAQS-for-Ozone-(NERA).pdf), p. S-2.

⁸ *Id* at p. S-5.

⁹ Energy Ventures Analysis, "Energy Market Impacts of Recent Federal Regulations on the Electric Power Sector", p. 4.

bill will increase by \$680 over the period.¹⁰ EVA found that on a percentage basis the industrial sector would be hardest hit, with costs 92 percent higher in 2020 than 2012.¹¹

Some of the cost increase is attributable to higher demand and pricing for natural gas due to the premature shutdown of coal plants. Fuel choice and diversity are reduced, coal is less available to hedge natural gas, and all American consumers pay the price. Higher prices are not the only threat. With its “four building blocks” approach under the Clean Power Plan, EPA has proposed transformational changes that unnecessarily risk electric grid reliability. ACC is gravely concerned that EPA has proposed this ozone rule in addition to other rules that will compromise the provision of such an essential service as electricity supply. Many facilities that would be subject to the new ozone rule are already being impacted by other EPA proposed or enacted rules.

In a presentation at a recent American Coal Council forum, Ken Ditzel of FTI Consulting addressed potential ramifications of the proposed ozone rule on the electric power sector. He reported about 290 GW of generating capacity without Selective Catalytic Reduction or Selective Non-Catalytic Reduction would be affected and need those controls to comply with a 65 ppb standard, or face retirement. Of this amount, about 125 GW is fueled by coal.¹² He stated that puts about 350 million tons of coal at risk.¹³

This is unnecessary and would further increase concerns about affordable, available electricity for America. EPA concluded in 2008 that a 75 parts per billion (ppb) ozone standard protects American health. There is no justifiable basis for EPA’s newly-proposed standard of 65 to 70 ppb. Concerns expressed going back to 2008 about harmful economic repercussions of bringing the standard below 75 ppb are exponentially greater now due to increased regulatory compliance costs of other EPA rules since then. The toll such rules extract is greatest on the poor, the elderly, and small businesses. These groups were most affected by the years-long economic downturn and widely acknowledged to still be struggling.

This is irresponsible policy and it is unreasonable regulation.

¹⁰ Energy Ventures Analysis, “Energy Market Impacts of Recent Federal Regulations on the Electric Power Sector”, p. 4.

¹¹ *Ibid.*

¹² Ken Ditzel, FTI Consulting, “Proposed Ground-Level Ozone Standards: Are EPA’s Costs and Benefits Reasonable?”, presentation at 2015 American Coal Council Spring Coal Forum, March 4, 2015 at http://c.ymcdn.com/sites/americancoalcouncil.site-ym.com/resource/resmgr/SCF15/final_FTI_Ditzel.pdf, p. 32.

¹³ Ken Ditzel, FTI Consulting, “Proposed Ground-Level Ozone Standards: Are EPA’s Costs and Benefits Reasonable?”, presentation at 2015 American Coal Council Spring Coal Forum, March 4, 2015.

Assessment of Health Costs and Benefits

EPA's rule promotes the benefits of avoided asthma and heart attacks, premature deaths, and missed school days. EPA estimates the total benefits at \$19 to \$38 billion annually for the 65 ppb standard and \$6.4 to \$13 billion annually for the 70 ppb standard.¹⁴ However, EPA relies on "co-benefits" to achieve these results, as it has done with earlier regulations. In his presentation at the recent American Coal Council forum, Mr. Ditzel of FTI Consulting discussed the breakdown of ozone and PM_{2.5} co-benefit reductions within EPA's estimated range of \$6.4 to \$13.0 billion under the 70 ppb proposed standard. The co-benefits of PM_{2.5} reductions, at \$4.3 billion to \$9.7 billion, are 68% to 74% of EPA's total estimated benefits.¹⁵ Thus, nearly three-quarters of EPA's total estimated benefits of the rule are for the "co-benefits" of PM_{2.5}. The ozone benefits alone, at \$2 billion to \$4.3 billion, account for only 32% to 26% of the EPA's total estimated benefits.¹⁶

Uncertainties and issues that were identified by EPA in its own Regulatory Impact Analysis (RIA) of the benefits were described by Mr. Ditzel in his American Coal Council presentation.¹⁷ These include:

- EPA acknowledges that data inputs for estimated emissions, modeled ozone air quality, and health impact functions among others, are subject to uncertainty and may contribute to overall uncertainty in the analysis.
- Economic benefits of reductions in premature mortality are the largest category of monetized benefits in the RIA. Additionally, in prior analysis, EPA identified valuation of mortality-related benefits as the largest contributor to the range of uncertainty in monetized benefits.
- EPA states that it rarely has time or resources to do extensive new research to measure directly either the health outcomes or their values for regulatory analysis.

Mr. Ditzel also discussed data illustrating the increasing incidence of asthma in the U.S during the period 2001-2009, while ozone levels were continuing to decrease during that

¹⁴ Environmental Protection Agency news release "EPA Proposes Smog Standards to Safeguard Americans from Air Pollution", November 26, 2014.

¹⁵ Ken Ditzel, FTI Consulting, "Proposed Ground-Level Ozone Standards: Are EPA's Costs and Benefits Reasonable?", presentation at 2015 American Coal Council Spring Coal Forum, March 4, 2015 at http://c.ymcdn.com/sites/americancoalcouncil.site-ym.com/resource/resmgr/SCF15/final_FTI_Ditzel.pdf, p.16.

¹⁶ *Ibid.*

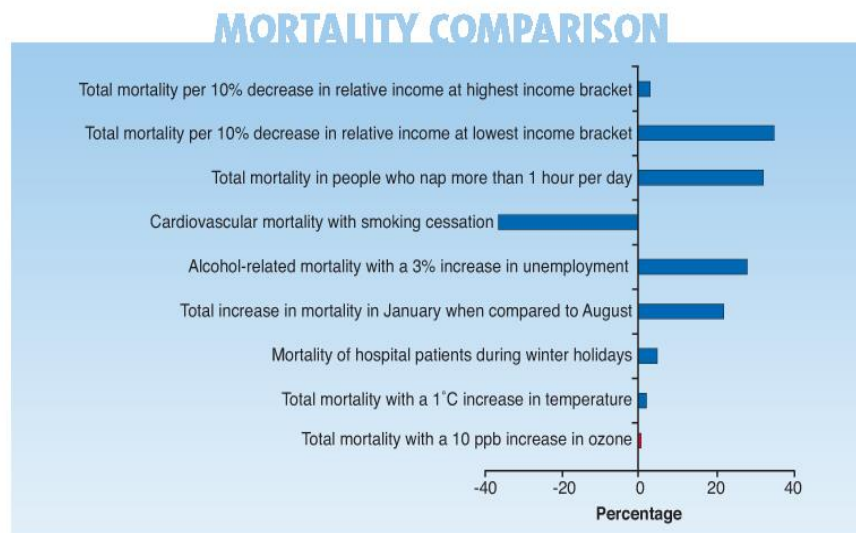
¹⁷ *Id* at p. 15.

time.¹⁸ These trends for asthma and ozone do not support EPA's position that a reduced ozone standard will result in fewer asthma attacks.

Dr. Michael Honeycutt and his team at the Texas Commission on Environmental Quality evaluated EPA's ozone analysis, concluding that there is little to no public health benefit from lowering the existing standard.¹⁹ Regarding asthma, Dr. Honeycutt reported that data from Texas hospitals shows that asthma hospital admissions are actually highest in the winter, when ozone levels are the lowest.²⁰ This is another example of data that does not support EPA's position on the health benefits of ozone reduction.

Further, Dr. Honeycutt points to EPA's own modeling in its Health Risk and Exposure Assessment which actually shows an increase in premature deaths, including the cities of Houston and Los Angeles, from lowering the ozone standards.²¹

Dr. Honeycutt illustrates the far greater impact that smoking and alcohol have on mortality than the effect of an increase in ozone in the chart below.²²



¹⁸ Ken Ditzel, FTI Consulting, "Proposed Ground-Level Ozone Standards: Are EPA's Costs and Benefits Reasonable?", presentation at 2015 American Coal Council Spring Coal Forum, March 4, 2015 at http://c.yimcdn.com/sites/americancoalcouncil.site-ym.com/resource/resmgr/SCF15/final_FTI_Ditzel.pdf, p. 19.

¹⁹ Michael Honeycutt, Ph.D., Texas Commission on Environmental Quality, "Will EPA's Proposed New Ozone Standards Provide Measurable Health Benefits?", at <http://www.tceq.state.tx.us/publications/pd/020/2014/will-epas-proposed-new-ozone-standards-provide-measurable-health-benefits>

²⁰ *Ibid.*

²¹ *Ibid.*

²² *Ibid.*

EPA also fails to include effects of other human health aspects of its rules. A group of health care professionals in Congress wrote EPA Administrator Gina McCarthy last year to address findings of Senator John Barrasso on the negative impacts to public health of costly EPA regulations.²³ These include more illnesses, hospital visits, and premature deaths. They urged EPA to include the net impact of their rules on health benefits, including adverse effects plausibly associated with unemployment and the increased cost of energy. ACC agrees with that. The likely result would be even higher total costs.

Considering the huge costs and the compelling data and trends that contradict EPA's position on health benefits, it would be irresponsible for EPA to proceed with lowering the ozone standard. In the words of Dr. Honeycutt, "How can the EPA in good conscience make a policy decision this expensive when the data are so contradictory that their own modeling predicts more deaths in some areas from lowering the standard?"²⁴

Background Levels of Ozone and Emissions from Other Countries

EPA's proposed range of 65-70 ppb for ozone is at or near the level of naturally occurring ozone in some areas, particularly in the western United States. This would cause nonattainment issues, which could severely limit economic growth and infrastructure development. Permit uncertainty, delays, and restrictions increase the cost of doing business and make it more difficult for companies to compete. This could result in facilities moving offshore, and more than likely locating in areas with far fewer and less stringent environmental standards.

The impact of ozone from facilities in other countries entering the United States is under increasing scrutiny. Mary Martin of the U.S. Chamber of Commerce (U.S. Chamber), in testimony before the EPA at its January 29, 2015 public hearing, addressed the growing amounts of ozone coming into the United States from other countries, especially into the west. She stated that the U.S. Chamber had urged EPA since 2006 to protect states and regulated entities under section 179B of the Clean Air Act by easing nonattainment penalties on states that can show they would be in attainment except for the impact of these foreign sources.²⁵ EPA has taken no action, and has not encompassed foreign

²³ Partnership for Affordable Clean Energy at <http://energyfairness.org/wp-content/uploads/2014/08/Doctors-Caucus-Letter.pdf>

²⁴ Michael Honeycutt, Ph.D., Texas Commission on Environmental Quality, "Will EPA's Proposed New Ozone Standards Provide Measurable Health Benefits?", at <http://www.tceq.state.tx.us/publications/pd/020/2014/will-epas-proposed-new-ozone-standards-provide-measurable-health-benefits>

²⁵ Statement of Mary K. Martin, U.S. Chamber of Commerce, to EPA's public hearing on January 29, 2015, at https://www.uschamber.com/sites/default/files/1.29.15-_chambers_testimony_for_epa_public_hearing_on_ozone_naaqs_proposal.pdf

sources in its newly-proposed lower ozone standard. A lower standard would exacerbate the problems and costs associated with nonattainment, and without international action to address ozone, EPA's lower standard would only produce pain and penalties.

Lack of Transparency and Clarity, and Problematic Assumptions

FTI Consulting's (FTI) review of the rule brought out some additional issues which Mr. Ditzel referred to during his recent ACC presentation:

- 1) EPA's benefits range is misleading. It is based on the central tendency of four primary studies instead of the statistical range. At lower confidence levels, the rule has only costs, and no benefits.²⁶
- 2) Input assumptions on health benefits are dubious. FTI points out that EPA's ozone alerts may be a self-fulfilling tactic because they recommend workers and school children stay home to avoid exposure. And, indoor air quality varies and may be worse in homes than in schools. Also, it is not clear that EPA considers telecommuting as an option instead of a missed work day.²⁷
- 3) EPA's cost analysis lacks rigor and its inputs are uncertain or unavailable, per FTI.
 - a. "The major source of the marginal abatement cost curve source is inaccessible to the public".²⁸
 - b. The costs of the unknown technologies required for meeting the lower standard are "tenuous".²⁹

Conclusion

The success of emissions reduction in the U.S. is a great environmental achievement. Power sector emissions of NOx, particulate matter, and sulfur dioxide taken together have been reduced by 89% through 2013.³⁰ Emissions will continue to be reduced without this unnecessary new EPA regulation. The ozone standard should remain at its current level of 75 ppb to avoid severe, widespread economic harm across America.

²⁶ Ken Ditzel, FTI Consulting, "Proposed Ground-Level Ozone Standards: Are EPA's Costs and Benefits Reasonable?", presentation at 2015 American Coal Council Spring Coal Forum, March 4, 2015 at http://c.ymcdn.com/sites/americancoalcouncil.site-ym.com/resource/resmgr/SCF15/final_FTI_Ditzel.pdf, p.8.

²⁷ *Ibid.*

²⁸ *Ibid.*

²⁹ *Ibid.*

³⁰ U.S. Department of Agriculture 2013 and Energy Information Administration 2013