International Brotherhood of
BOILERMAKERS • IRON SHIP BUILDERS **BLACKSMITHS • FORGERS & HELPERS**

1750 New York Ave., NW, Suite 335
Washington, DC 20006

202-756-2868
Fax: 202-756-2869

CECILE M. CONROY
DIRECTOR OF GOVERNMENT AFFAIRS
cconroy@boilermakers.org

INTERNATIONAL BROTHERHOOD OF BOILERMAKERS

Comments on EPA Proposed Rule on

National Ambient Air Quality Standards for Ozone

79 Fed. Reg. 75,234 (Dec. 17, 2014)

Docket ID: EPA-HQ-OAR-2008-0699

I. Introduction.

The International Brotherhood of Boilermakers (the Boilermakers) appreciates the opportunity to comment on the Environmental Protection Agency's (EPA) proposed rule on National Ambient Air Quality Standards for Ozone (Proposed Rule).[1] The International Brotherhood of Boilermakers is a diverse union representing workers throughout the United States and Canada in industrial construction, repair, and maintenance; manufacturing; shipbuilding and marine repair; railroads; mining and quarrying; cement kilns; and related industries. With its headquarters in Kansas City, Kansas, the Boilermakers unites over 250 lodges throughout North America, providing numerous services for local lodges and individual members and uniting all our members in our common endeavor to improve the lives and lifestyles of our members.

Members of the Boilermakers build and maintain large electric generation facilities and other projects that will be significantly impacted by the Proposed Rule. Our members are employed in building, repairing, and refurbishing fossil-fueled electric generating units, industrial boilers, and other sources that could be affected by changes to the National Ambient Air Quality Standards (NAAQS) for ozone. Accordingly, the Boilermakers and its members have a clear and significant interest in the present EPA rulemaking.

The Boilermakers support reasonable, achievable regulations to ensure clean air and protect health. However, we have substantial concerns with EPA's proposal to lower the ozone NAAQS below the current level, particularly in light of the fact that the

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[1] 79 Fed. Reg. 75,234 (Dec. 17, 2014).

current standard has not yet been achieved in many parts of the country, and achieving an even lower standard could have significant negative impacts on jobs and local economies. The comments below address four key issues with the Proposed Rule.

- First, lowering the NAAQS standard for ozone at this time would be unwise in light of the fact that states have not yet fully implemented the current primary ozone standard of 0.075 parts per million (ppm);

- Second, lowering the standard would stall economic growth in much of the U.S., leading to significant costs and job losses—particularly in the electric power sector;

- Third, EPA can and should consider achievability and background ozone levels when establishing the NAAQS; and

- Fourth, there does not appear to be sufficient new scientific evidence to justify lowering the NAAQS below the level EPA last established in 2008.

For these reasons, we urge EPA to maintain the ozone NAAQS at the current level of 0.075 ppm.

II. Boilermakers Support Maintenance and Full Implementation of the Existing Ozone Standard Before Lowering the Standard Further.

Our principal concern with EPA's proposal to lower the ozone NAAQS before the current standard is implemented is that doing so would be disruptive and contrary to the goal of achieving reasonable, protective levels of ozone in many communities. According to EPA, 133 million Americans – 2 out of every 5 – are *currently* living in areas that exceeded the *existing* (0.075 ppm) standard on at least 4 occasions in 2012.[2] Moreover, due to litigation and a delay in EPA's issuance of a rule establishing state implementation plan (SIP) submittals and attainment deadlines, many states have not even begun to implement, let alone attain, the 2008 standards. For example, EPA only finalized its SIP Requirements rule for the 2008 ozone NAAQS *this month*, while many of the SIP components for areas with moderate or greater levels of nonattainment are not even due to EPA until July 2015 or later.[3] Many of the areas that are currently in nonattainment would not even be required to achieve attainment of the *2008* NAAQS until 2018 or later.

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[2] Proposed Rule, 79 Fed. Reg. at 75242.

[3] *See* Implementation of the 2008 National Ambient Air Quality Standards for Ozone: State Implementation Plan Requirements; Final Rule, 80 Fed. Reg. 12,264 (Mar. 6, 2015).

States and industry need a reasonable period of time to fully implement the existing standard before attempting to achieve an even more ambitious standard like the one EPA proposes to adopt. It makes little sense—and will cause significant regulatory uncertainty and economic hardship—for EPA to move the goal-posts just as states and communities are beginning to take the actions necessary to achieve the 2008 NAAQS. Lowering the standard to 0.065 or even 0.070 ppm would make it even more difficult for areas that are currently in nonattainment to achieve the current ozone NAAQS, while requiring many other areas of the country with good air quality to introduce stringent new emission controls. As we explain in the next section, designation of these areas as nonattainment areas would lead to stringent new permitting requirements for sources of ozone precursors, as well as other policies that would stifle economic growth.

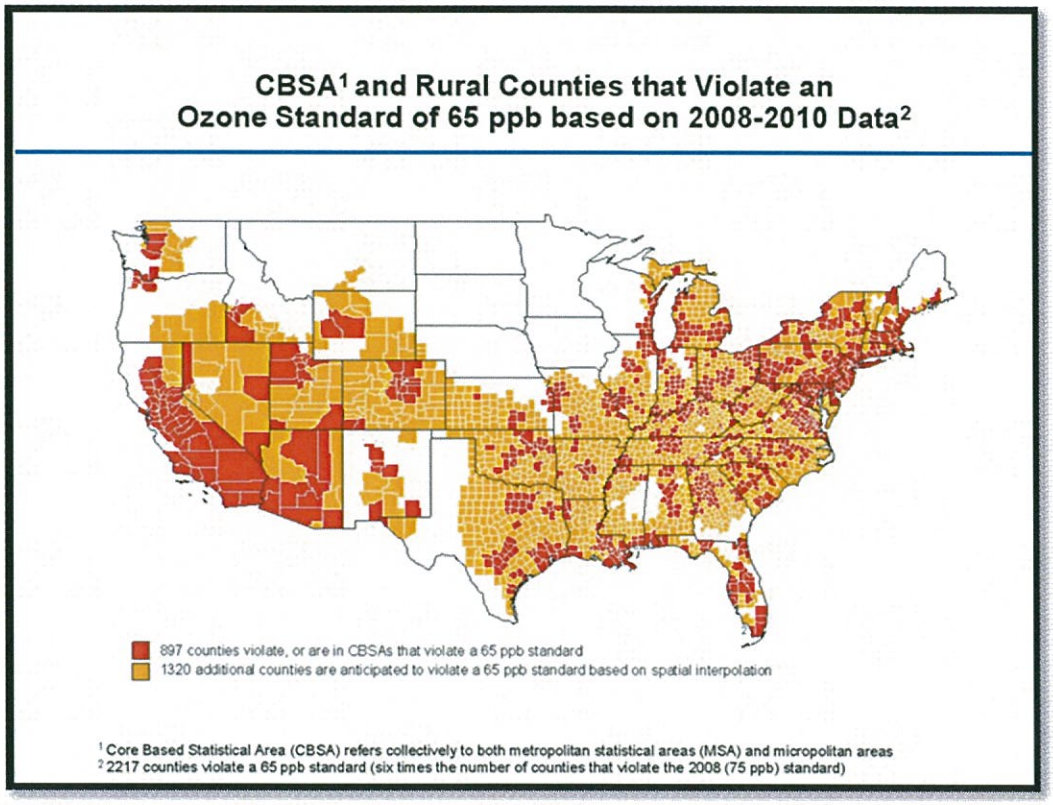
For these reasons, and because (as we explain below) the science does not appear to require an adjustment of the ozone standard at this time, EPA should retain the current 0.075 ppm standard. In the alternative, EPA should lower the standard to no lower than 0.070 ppm, so as to minimize the economic disruptions the new NAAQS would create.

III. Lowering the NAAQS Further Would Stall Economic Growth and Lead to Significant Job Losses and Costs, Particularly in Electric Power Sector.

We are also concerned with the potentially significant impacts that a more stringent ozone NAAQS would most likely have on jobs, the economy, and the energy sector in particular. Designation of an area as a nonattainment zone means that many existing industrial sources will be required to implement new "reasonably available control technologies" for nitrogen oxides (NO_x) and volatile organic compounds (VOCs). In addition, new and modified sources in nonattainment areas—factories, power plants, and major industrial facilities—will be required to undergo onerous new source review permitting requirements, which would require, among other things, these facilities to install the most stringent possible controls (*i.e.*, "lowest achievable emission rate" controls). In addition, new sources will be prohibited from locating in nonattainment areas, and any major refurbishment would not be allowed unless they offset their increased emissions (in some cases, at ratios as high as 1.5 to 1). Moreover, new transportation infrastructure projects in nonattainment areas could be delayed or derailed as a result of EPA's transportation conformity rules. In some areas, tightening the ozone NAAQS could require the installation of expensive gasoline vapor recovery systems at gas stations, changes to automobile inspection rules, and expensive transportation control measures. Finally, sources of ozone precursors (*i.e.*, NO_x and VOCs) in some nonattainment zones could be required to pay steep penalties for

emitting these compounds—even if background levels of ozone and precursors are responsible for much of the problem.

Lowering the ozone standard to 0.065 ppm would lead to imposition of these growth-restricting regulations in much of the country. As the figure below indicates, 2,217 counties would likely be designated in nonattainment of a 0.065 ppm standard. These counties represent some of the most densely populated, economically productive areas of the U.S. For example, analysis by the Baton Rouge Area Chamber of Commerce indicates that 18 of the top 20 best performing metro areas in the U.S. would become nonattainment areas if EPA were to lower the standard to 0.070 ppm or less.[4]



Source: National Association of Manufacturers, Non-Attainment-Maps-for-Proposed-Ozone-Standard, http://www.nam.org/Issues/Energy-and-Environment/Ozone-Regulations/Non-Attainment-Maps-for-Proposed-Ozone-Standard-%28Based-on-2008-2010-data%29/.

Numerous analyses of the impacts of lowering the ozone NAAQS to 0.065 ppm indicate that this regulation could have particularly severe impacts on the economy, jobs, worker income, and the power sector. For example, analysis by NERA Economic Consulting indicates that achieving a 0.065 ppm standard could cost almost $1.1 trillion (net present value) over the period 2017-2040.[5] This constitutes an average annual cost

[4] http://www.brac.org/brac/news_detail.asp?article=1947.
[5] NERA Analysis at S-9.

over the period of more than $43 billion per year. Furthermore, this cost estimate does not include the additional costs that could be incurred if coal-fired power plants are forced to significantly reduce generation to achieve the NO_x reductions that would be needed to meet this stringent standard.

We also note that the single-year cost estimates EPA uses in the Regulatory Impact Analysis (RIA)[6] appear to be unrealistically low. As members of the Senate Environment and Public Works Committee astutely pointed out in a March 10 letter to EPA, EPA's cost estimates are based on numerous questionable assumptions.[7] In particular, EPA's cost estimates assume that the proposed Clean Power Plan will be fully implemented, despite the fact that this rule has not yet been finalized and is predicated on numerous novel and legally questionable interpretations and assumptions.[8] Furthermore, EPA appears to have made several unrealistic assumptions about the cost of controls—particularly "unknown" controls that could comprise 75% of the total costs of implementing a 0.065 ppm standard.[9]

The impacts of a 0.065 ppm standard would be particularly significant for the coal and electric generating industries. For example, EPA assumes that up to 51 GW of existing coal-fired generation could be required to install Selective Catalytic Reduction systems to reduce NO_x emissions.[10] Because many of the units EPA has identified for such stringent NO_x controls are older, smaller units, NERA estimates that many of these will shut down, leading to retirement of an additional 34 GW of coal-fired generation.[11] In addition, implementing a 0.065 ppm standard would lead to a 28% decline in output from the coal industry, and a 1.5% decline in the electric industry relative to baseline.[12]

When combined with the large number of retirements that are already expected to occur due to the Mercury and Air Toxics Rule, Clean Power Plan proposed rule, and

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[6] For example, EPA's estimated cost in 2025 of implementing a 0.065 ppm standard for the U.S. plus California is only $16.6 billion. RIA at 8-4.

[7] *See* Letter from Sen. James N. Inhofe, Chairman of Sen. Env't and Public Works Cmte., *et al.* to Hon. Gina McCarthy, Admin. of the EPA (Mar. 10, 2015), *available at* http://www.epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=8f92ccfa-20ed-498e-869e-911a3df1aaa2 [hereinafter "EPW Letter"].

[8] The Boilermakers provided details comments explaining why EPA's proposed approach to regulating CO_2 from electric generating units is legally vulnerable and should be revised to reduce the stringency of the agency's proposed emission guidelines. *See* International Brotherhood of Boilermakers, Comments on the Environmental Protection Agency's Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, Docket ID No. EPA-HQ-OAR-2013-0602 (Dec. 1, 2014).

[9] *See* EPW Letter at 1-2.

[10] RIA at 10-10.

[11] NERA Analysis at S-10.

[12] *Id.* at S-14.

other recent environmental regulations, the impact on the existing coal-fired generating fleet, our members (who play a critical role in maintaining those units), and American workers could be catastrophic. NERA projects that labor income—which is already being battered by globalization, outsourcing, and other environmental regulations—would decline by 0.9% relative to business as usual expectations.[13] This decline is equivalent to a loss of 1.4 million job-equivalents.[14]

IV. EPA Should Consider Achievability and Background Ozone Levels When Establishing the NAAQS.

Although Section 109 of the Clean Air Act does not mention costs or labor impacts in the context of EPA's obligation to set the NAAQS, the EPA Administrator is required to exercise judgment and discretion when establishing primary and secondary standards. Moreover, other provisions in the Act's criteria pollutant provisions make clear that the NAAQS must be set at a level that is achievable. For example, Section 107 of the Act specifies that state implementation plans (SIPs) must demonstrate that the NAAQS "*will be achieved* and maintained,"[15] while Section 110 requires SIPs to include enforcement programs "to assure that [the NAAQS] are *achieved*."[16] Although not ruling on this exact issue, courts have generally recognized that the Clean Air Act does not authorize EPA to set unachievable ambient air quality standards.[17]

Furthermore, it would be unreasonable to read the Clean Air Act to permit EPA to set standards that are not achievable due to background levels of ozone in many parts of the country. Yet a level of 0.065 ppm may be impossible to achieve in some parts of the U.S.—particularly the intermountain West where background levels of ozone precursors, intrusions of stratospheric ozone, and transport of ozone precursors from other areas often lead to background levels of 0.060 ppm or greater. The large number of unknown controls on which EPA expects industry to rely raises significant questions about whether a NAAQS of 0.065 ppm could ever be achieved even in these

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[13] NERA Analysis at S-12.

[14] *Id.*

[15] 42 U.S.C. § 7407(a) (emphasis added).

[16] 42 U.S.C. § 7410(a)(2)(C) (emphasis added). The legislative history of the Clean Air Act also confirms that Congress did not intend that NAAQS be set at unachievable background levels. For example, the House Report to the 1977 Clean Air Act Amendments states: "Some have suggested that since the standards are to protect against all known or anticipated effects and since no safe thresholds can be established, the ambient standards should [b]e set at zero or background levels. Obviously, this no-risk philosophy ignores all economic and social consequences and is impractical." H.R. Rep. No. 294, 95th Cong., 1st Sess. 127 (1977).

[17] *American Trucking Ass'ns v. EPA*, 175 F.3d 1027, 1036 (D.C. Cir. 1999) (stating that it "may well be a sound reading of [the Clean Air Act]" that "it is inappropriate to set a standard below a level that can be achieved throughout the county without action affirmatively extracting chemicals from nature").

and other parts of the country. Setting the NAAQS at an unachievable level would not be protective of public health, and may lead to major economic hardship without significantly improving health outcomes. Consequently, EPA should consider the achievability of a 0.065 ppm standard in light of these concerns, and set the NAAQS at a level that will not be impossible to achieve without shutting down all industrial activity in many parts of the country.

V. There Does Not Appear To Be Any New Scientific Justification for Further Lowering NAAQS.

In addition to our concerns about the difficulties of implementing the standard and the costs that it would impose on workers, we note that many scientists have doubts about the scientific evidence on which EPA relies. EPA largely relies on studies that were available to it in 2008, when the Administrator made a reasonable decision not to lower the standard below 0.075 ppm. Furthermore, although EPA cites four new controlled exposure studies indicating modest lung capacity impairment at levels below 0.070 ppm, the below-0.070 ppm results of two of these studies were not statistically significant.[18] Likewise, EPA cites only a single study in which an inflammatory reaction was observed at levels below 0.080 ppm.[19] None of the studies cited by EPA show statistically significant increased respiratory symptoms from exposure below 0.072 ppm, and only one study shows such symptoms at 0.072 ppm.[20]

In addition, EPA recognizes that considerable uncertainty exists with regard to setting a safe level for ozone exposure.[21] EPA admits that "a population-level threshold has not been identified below which it can be concluded with confidence that [ozone]-attributable effects do not occur."[22] In previous rulemakings, including the agency's last review of the ozone NAAQS, the Administrator exercised discretion to set the NAAQS at levels where the relevant uncertainties provided sufficient confidence that some health effects would occur at levels above the selected NAAQS. As EPA explained in its 2008 rulemaking, the Administrator's judgment with regard to the final level of the NAAQS "must include consideration of the strengths and limitations of the evidence and the appropriate inferences to be drawn from the evidence and the exposure and

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[18] *See* 79 Fed. Reg. at 75,249.
[19] 79 Fed. Reg. at 75,252.
[20] 79 Fed. Reg. at FR 75,255.
[21] *See, e.g.*, 79 Fed. Reg. at 75,244.
[22] *Id.*

risk assessments."[23] Moreover, EPA is free to reach policy conclusions based on the evidence that differ from those reached by CASAC.[24]

In setting the 2008 NAAQS at 0.075 ppm and, in so doing, rejecting the adoption of a more stringent ozone standard set at 0.070 or 0.065 ppm, EPA [took] into account the uncertainties that remain in interpreting the evidence from available controlled human exposure and epidemiological studies at very low levels, [and noted] that the likelihood of obtaining benefits to public health with a standard set below 0.075 ppm O_3 decreases, while the likelihood of requiring reductions in ambient concentrations that go beyond those that are needed to protect public health increases.[25]

The same can be said about the state of the evidence of health effects from exposure to levels below 0.075 ppm today. As in 2008, the evidence for health impacts below 0.075 ppm is highly uncertain, and the likelihood of obtaining additional public health benefits at lower levels—if indeed those levels can be achieved—is questionable. Therefore, it is appropriate for the Administrator, in weighing the uncertainties and the policy implications of those uncertainties, to maintain the ozone NAAQS at the current level.

VI. Conclusions.

The Boilermakers appreciate the opportunity to comment on EPA's proposal to update the ozone NAAQS. We urge EPA to consider whether a NAAQS below the current level is achievable, the significant costs that could be involved in achieving such a NAAQS, and the uncertainty of the scientific evidence for health impacts below the current level in deciding whether to lower the NAAQS at this time. In our view, EPA should focus on implementing the 2008 NAAQS and gathering additional evidence of health impacts before developing a new ozone NAAQS that would entail significant economic costs to many Americans.

Sincerely,

Cecile M. Conroy

Cecile M. Conroy
Director, Government Affairs
E-mail: cconroy@boilermakers.org
Telephone: (202) 756-2868

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[23] 2008 Ozone NAAQS Final Rule, 73 Fed. Reg. at 16483 (Mar. 27, 2008)

[24] *Id.*

[25] *Id.*