



Industrial Energy Consumers of America

The Voice of the Industrial Energy Consumers

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February 13, 2017

Acting Administrator Catherine R. McCabe
U.S. Environmental Protection Agency
William Jefferson Clinton Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: Docket ID No. EPA-HQ-OAR-2016-0202; Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area Classifications and State Implementation Plan Requirements

The Industrial Energy Consumers of America (IECA) are pleased to submit comments on EPA's "Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area Classifications and State Implementation Plan Requirements." IECA finds that the proposed rule is inconsistent with President Trump's agenda for manufacturing job creation and economic growth. The fact that states have not been able to comply with the existing 2008 ozone National Ambient Air Quality Standard (NAAQS) speaks loudly to the troubling science and economic justification for a new lower limit. The Administration should not move forward with the new standard until it revisits the underlying scientific and cost-benefit justification for the rule, including the resolution of the background ozone issue.

IECA is a nonpartisan association of leading manufacturing companies with \$1.0 trillion in annual sales, over 2,300 facilities nationwide, and with more than 1.6 million employees worldwide. IECA membership represents a diverse set of industries including: chemicals, plastics, steel, iron ore, aluminum, paper, food processing, fertilizer, insulation, glass, industrial gases, pharmaceutical, building products, automotive, brewing, independent oil refining, and cement.

IECA member companies are major stakeholders that are impacted by EPA's decision to lower the existing ozone NAAQS to 70 parts per billion (ppb). Mounting EPA regulatory costs and permitting restrictions have made it very difficult for manufacturing companies to either expand existing facilities or permit new facilities, thereby impacting U.S. jobs, investment, and economic growth. As a result, foreign competitors have supplanted those investments. For example, while China's manufacturing jobs have increased by 31.5 percent since 2000, U.S. manufacturing jobs have declined by 28.8 percent. Furthermore, the 2016 U.S. manufacturing trade deficit stands at \$648 billion and 57 percent of the deficit is with one country, China.¹

EPA has estimated costs of a 70 ppb standard to be \$1.4 billion annually. However, industry cost estimates are much greater. Economic research indicates that the real-world consequences of

¹ Global Patterns of U.S. Merchandise Trade, U.S. Department of Commerce, <http://tse.export.gov/TSE/TSEOptions.aspx?ReportID=1&Referrer=TSEReports.aspx&DataSource=NTD>.

nonattainment status can be severe and far reaching. For example, some past consequences include:

- Plants in non-attainment areas experienced a 4.8% decline in total factory productivity, equivalent to approximately \$21 billion per year.²
- U.S.-based multinational firms increased their foreign production by 9% and their foreign assets by 5% in response to tougher regulation under the Clean Air Act Amendments.³
- Following a non-attainment designation, the average worker in a regulated sector experienced a total earnings loss equal to 20% of their pre-regulatory earnings.⁴

I. Nonattainment Expansion

The new 70 ppb standard will cause significant portions of the country to fall into nonattainment. Under the previous 75 ppb standard, twenty-eight areas classified as nonattainment. However, according to EPA, under the new standard two-hundred and forty-one counties will be in nonattainment, an 860.7 percent jump. Industry estimates of nonattainment under the new standards are much higher. Also, EPA proceeded to lower the standard even though weighty emissions reductions have taken place. Emissions of ozone precursors have been reduced by about 57 percent since 1970. In fact, EPA's own data states that "Nationally, average ozone levels declined in the 1980's, leveled off in the 1990's, and showed a notable decline after 2002."⁵

The consequences of nonattainment designation are not to be taken lightly. Nonattainment brings with it retrofit requirements for existing sources, lowest achievable emissions rate technology (regardless of cost) for new or modified existing sources, the need to offset increased emissions by more than one-to-one, additional permitting burdens, and transportation consistency requirements. Numerous studies have catalogued the consequences of a nonattainment designation, including lower productivity, loss of economic output, and lower wages in the affected industries.⁶

² Greenstone et al. (2012).

³ Hanna (2010).

⁴ Walker (2013).

⁵ U.S. Environmental Protection Agency (EPA), Ozone Trends, <https://www.epa.gov/air-trends/ozone-trends>.

⁶ Studies have found that "more stringent environmental regulation deters new plant openings and may even cause firms to relocate plants to areas with more lax environmental regulations." Shadbegian, R. and Wolverton, A., "Location Decisions of U.S. Polluting Plants: Theory, Empirical Evidence, and Consequences," EPA National Center for Environmental Economics, 2010, p. 38, available at: [http://yosemite.epa.gov/ee/epa/eed.nsf/ec2c5e0aaed27ec385256b330056025c/81d7332051b52ed8852572700744a02/\\$FILE/2010-05.pdf](http://yosemite.epa.gov/ee/epa/eed.nsf/ec2c5e0aaed27ec385256b330056025c/81d7332051b52ed8852572700744a02/$FILE/2010-05.pdf). A 2012 study estimated a 4.8 percent decline in total factor productivity levels for emitting plants located in non-attainment areas, which corresponds to annual lost output in the manufacturing sector of nearly \$21 billion (2010 dollars). See Greenstone, M., et al., "The Effects of Environmental Regulation on the Competitiveness of U.S. Manufacturing," MIT Center for Energy and Environmental Policy Research 2012 (Greenstone et al. 2012), pp. 2, 31-32. Available at:

II. Implementation Issues

States are currently struggling to meet the existing 2008 ozone NAAQS. And, although the 70 ppb standard was finalized on October 1, 2015, the EPA has not issued accompanying implementation rules and guidance. Some of the information missing includes: lack of rulemaking to establish nonattainment classification thresholds and lack of guidance on naturally occurring background ozone and analysis of interstate drift or transport of ozone. Thus, the new standard imposes duplicative costs and burdens of implementing multiple standards simultaneously.

One way that EPA can reduce costs is to include energy efficiency improvements, such as industrial cogeneration of heat and power (CHP) and waste heat recovery (WHR), as a compliance option. CHP is up to 80 percent energy efficient versus conventional power generation at about 35 percent. The avoided emissions can easily be modeled.

III. Background Ozone

IECA remains very concerned that some locations in the U.S. may violate the ozone standards due to background ozone concentrations. Under the Clean Air Act (CAA), states are not responsible for reducing emissions from background sources. EPA has stated that they intend to work directly with states to ensure that all “CAA provisions that would provide regulatory relief associated with background ozone are recognized.”

Communities in the intermountain West are highly susceptible to stratosphere-to-troposphere transport (STT) events or background ozone. According to 2014 study commissioned by Clark County, NV and conducted by scientists from the National Oceanic & Atmospheric Administration (NOAA)⁷:

- “Since the higher background concentrations and episodic increases associated with STT and Asian pollution are unaffected by local control strategies, these processes pose a serious challenge for air quality managers tasked with meeting the NAAQS in the western United States.”
- “In other words, exceedances of the NAAQS generated by high background concentrations and stratospheric intrusions would have occurred on 60% of the

<http://web.mit.edu/ceepr/www/publications/workingpapers/2012-013.pdf>. US-based multinational firms are estimated to have increased their foreign production by 9% and their foreign assets by 5% in response to tougher regulation under the Clean Air Act Amendments of 1990. See Hanna, R., 2010. “US Environmental Regulation and FDI: Evidence from a Panel of US-Based Multinational Firms” (Hanna 2010). *American Economic Journal: Applied Economics*, 2(3): 158-89, p. 187. Available at: http://scholar.harvard.edu/files/remahanna/files/fdi_aej_july_2010.pdf. A 2013 analysis concluded that following a non-attainment designation, “[t]he average worker in a regulated sector experienced a total earnings loss equivalent to 20% of their preregulatory earnings.” Walker, W.R., “The Transitional Costs of Sectoral Reallocation: Evidence from the Clean Air Act and the Workforce,” *The Quarterly Journal of Economics* (2013) (Walker 2013), pp. 1787-1835, at pp. 1791, 1830. Available at: http://faculty.haas.berkeley.edu/rwalker/research/walker_transitional_costs_CAA.pdf.

⁷ Source: Langford et al. (2014). “An overview of the 2013 Las Vegas Ozone Study: Impact of stratospheric intrusions and long-range transport on surface air quality.” *Atmospheric Environment*, (2014) 1-18.

days during Las Vegas Ozone Study, making these events the rule rather than the exception.”

- “Exceedance events will become increasingly frequent if the NAAQS is decreased to 70 ppb or less, and the ‘exceptional events’ approach may no longer be viable.”

The EPA’s Exceptional Events rule establishes criteria and procedures for evaluation of air quality data recorded during natural events such as high winds, wildfires, and seismic activities. However, the current policy is not designed for situations where background ozone contribution comes from a variety of sources (i.e. STT, international transport, wildfires, etc.). Furthermore, the exceptional events policy has only once been used to formally acknowledge an STT event.

IECA supports cost-effective action to reduce ozone concentrations in a manner that will not impair manufacturing competitiveness. We urge you to not act upon the proposed rule and work with states to find economic solutions to complying with the existing 2008 ozone standard. We also encourage you to revisit the underlying scientific and cost-benefit justification for the rule, including the resolution of the background ozone issue, and ensure that any future ozone standard is consistent with President Trump’s agenda for manufacturing job creation and economic growth.

Thank you for considering these comments.

Sincerely,

Paul N. Cicio
President