

**COMMENTS** on **PROPOSED REVISION TO  
NATIONAL AMBIENT AIR QUALITY STANDARDS  
FOR OZONE**, *72 Federal Register 37818 (July 11, 2007)*

**(EPA Docket Number OAR-2005-0172)**

By the National Association of Manufacturers

Submitted to the Environmental Protection Agency on  
October 9, 2007

**COMMENTS OF THE  
NATIONAL ASSOCIATION OF MANUFACTURERS  
to the  
ENVIRONMENTAL PROTECTION AGENCY  
regarding  
DOCKET NUMBER OAR-2005-0172**

**PROPOSED REVISION TO THE NATIONAL AMBIENT AIR QUALITY STANDARDS  
(NAAQS) FOR OZONE**

The National Association of Manufacturers (NAM) submits these comments in response to the Environmental Protection Agency's (EPA) Proposed Revision to the National Ambient Air Quality Standards (NAAQS) for the 8-hour ozone regulation, as published in the July 11, 2007, issue of the Federal Register, *72 Federal Register 37818*. The NAM is the nation's largest industrial trade association representing small and large manufacturers in every industrial sector and in all 50 states. Changes to the NAAQS for ozone under the Clean Air Act (CAA) will directly impact the operation of our members' manufacturing facilities and power plants. At FR page 37908, EPA said "NAAQS do not have significant impacts upon small entities because NAAQS themselves impose no regulations upon small entities." The NAM disagrees with this position and will outline why below. The EPA also at FR page 37908 stated an interest "in the potential impacts of the proposed rule on small entities" and welcomed comments on issues related to such impacts. The NAM will provide these below.

The NAM's mission is to enhance the competitiveness of manufacturers and improve American living standards by shaping a legislative and regulatory environment conducive to U.S. economic growth. As a general matter, the NAM is supportive of EPA regulations that are designed to provide real net benefits to environmental quality and the public health, including the health of manufacturing workers and their families. Conversely, the NAM opposes emissions regulations that would impose more compliance costs on the manufacturing sector, especially those that do not demonstrate tangible environmental or health benefits through thorough scientific study.

The NAM strongly supports preservation of the existing 8-hour ozone standard. Given the uncertainty of the science and questionable methodology employed by EPA scientists to justify a revision, the NAM is very concerned that Administrator Johnson has requested comments on ranges that could result in significant compliance costs while providing uncertain benefits. We strongly urge Administrator Johnson to revisit the science and methodology issues and hope that the EPA will ultimately adopt the option to keep ozone concentrations at 84 parts per billion (ppb).

## **I. Overview**

Ozone is a gas found in the atmosphere both naturally and as a result of man-made air pollution. The most prevalent ozone concentrations are found in the stratosphere where ozone provides a protective layer that shields the earth from harmful ultraviolet (UV) radiation. At

ground-level, however, especially in heavily populated areas, ozone pollution, commonly referred to as smog, arises from photochemical reactions between volatile organic compounds (VOCs) and nitrogen oxides (NO<sub>x</sub>) exposed to sunlight. Exposure to sunlight is key. Occasionally, elevated ozone concentrations result in what many members of the public will recognize as designated “ozone days,” especially during the summer months. In 1997, the EPA set the current 0.08 ppm 8-hour National Ambient Air Quality Standards (NAAQS) for ozone in the midst of a review mandated by the Clean Air Act (CAA). Based on a review of the science, the EPA must establish national primary air quality standards requisite to protect the public health with an adequate margin of safety.

Based on periodic reviews of the science, the CAA requires the EPA to establish national primary air quality standards requisite to protect the public health with an adequate margin of safety. The ozone standard directly impacts U.S. manufacturers on many levels and for many years. In 1997, the EPA set the current 0.08 ppm 8-hour standard for ozone following the CAA mandated review. The EPA is still in the process of implementing this standard. As described below, significant additional reductions in nationwide VOC and NO<sub>x</sub> emissions will result in further improvements in ozone levels over the next several years as a result of other regulations currently being implemented.

When the EPA designates counties as being in non-attainment of any NAAQS, whether it be for PM<sub>2.5</sub>, coarse PM, or ozone, the new non-attainment area must undergo non-attainment permitting of new sources. This can restrict the location of new business in the area and restrict the growth of existing business. This step is attached to the NAAQS standard level, operated by the EPA and provides little or no state/local control and ability to mitigate damaging economic consequences of being designated as non-attainment.

Three years following the non-attainment designation, state and local regulators must develop a State Implementation Plan (SIP) in order to bring the area into attainment, or compliance, with the CAA. Regulators often target large stationary sources, including manufacturing facilities, chemical and petroleum refineries, and electric or power generation facilities when exploring the various “control measures,” or regulations, that will be implemented to bring the area into compliance by the designated target date. They also target mobile sources, including automobiles, and could mandate new engine designs, all of which raise the price of doing business and undermines U.S. competitiveness.

State regulators then submit this complete SIP to the EPA for approval. The EPA has 18 months to either accept or reject the plan. A SIP submission that cannot demonstrate attainment or is otherwise unacceptable by EPA can cause the local area to incur penalties including the loss of federal highway funding for road projects.

Finally, 15-20 years following the SIP process, the inability to attain a NAAQS set at a level unachievable for an area (an approved SIP fails to achieve the NAAQS standard) will invoke Section 185 penalties in severe and extreme areas, incurring millions of dollars in emissions fees on the Point Source industry in these areas. For the 1-hour ozone SIP process initiated with the 1990 Clean Air Act Amendments, these penalty deadlines began in 2005 and continue in 2007 and 2010.

## II. Sound Science Does Not Justify Revision of the Current Ozone Standard

The Annapolis Center for Science-Based Public Policy issued a comprehensive critique of the EPA science used to revisit the ozone standard. The Center points out that the EPA bases its recommendations regarding primary and secondary standards in its final Ozone Staff Paper (SP) and the Clean Air Scientific Advisory Committee's (CASAC) October 24, 2006 letter to the Administrator on health risk estimates from exposures to ambient ozone. However, the EPA scientists based their projections on incomplete estimates that did not adequately account for levels of so-called "background level ozone," or ozone present at ground level that does not originate from man-made sources. Furthermore, federal regulators assumed that there will be no man-made emissions originating from Mexico and Canada and also discounted agricultural emissions. Such skewed methodology overstates the health risks of U.S. industrial sources and the abilities of many states to draft practical pollution "reduction plans to achieve a proposed new standard." Such a practice is inconsistent with the applications of sound science by detaching "analysis from actual monitoring data" and establishing the precedent of placing "critical policy decisions on a foundation of model calculations rather than observations."

Even though both the EPA staff and CASAC "recommend extreme value statistical forms for the standards," the EPA evaluation did not consider "the extreme values of ozone background levels that cannot be controlled through reduction of U. S. man-made emissions." The result is that both groups recommended ranges that "overlap with the extremes of background." In previous reviews of the standard, federal regulators examined statistical means and extremes of background. During the current review, however, the EPA relied on background estimates produced by a global simulation model. Paradoxically, in its Criteria Document that preceded the release of the current proposal, federal regulators state "that the global model EPA relied on to estimate background is unable to simulate local maxima." Furthermore, "the large grids in the global model mix air parcels of different composition and origin in an unrealistic way." This methodology severely limits the "ability to accurately simulate local photochemical activity, intercontinental transport, and the impact of stratospheric air inserted into the troposphere."

The EPA also misinterpreted a key health study and relied on flawed epidemiology when issuing its recommended options for comment on a more stringent ozone standard. The EPA relies heavily on a study by William C. Adams, Professor Emeritus of the University of California - Davis, to justify moving to a more stringent standard. Although EPA's internal re-analysis of the Adams study found "significant" health effects with reduced exposure to ozone, Dr. Adams' original work found no significant effects below the current standard. Furthermore, Adams disagreed with the EPA's reanalysis during a CASAC meeting. An individual CASAC member even stated that the EPA's approach to the re-analysis "is a dangerous precedent . . . a pitiful number on which to attempt to base policy."

Also, the EPA is relying on highly uncertain epidemiological studies as a basis for lowering the ozone standard. Given the great uncertainty, the evidence the agency is using should not be used to lower the current standard. For example, there is a weak correlation between monitored ozone levels and the actual personal exposure subjects receive during their daily activities. A June 5, 2006 CASAC letter states that "it is known that personal exposure to

ozone is not reflected adequately and sometimes not at all, by ozone concentrations measured at central outdoor monitoring sites.”

The NAM shares the concern of scientists at the Annapolis Center, who point out the degree to which CASAC overestimates the importance of epidemiological data related to emergency room visits, hospital visits and mortality allegedly tied to exposure to ozone. Although there are studies tying ozone exposure to impacts on public health, the broad range of effects reflected in recent studies and disputes over model selection lead to biased conclusions toward causal links. In its analyses, the EPA clearly overstates the probability of causal links between health effects and exposure to ozone, especially at the lower concentrations examined.

### **III. The Current Ozone Standard Is Fulfilling the EPA’s Mandate To Protect the Environment and Public Health.**

The current standard establishes limits of 0.08 parts per million (ppm), is driving significant reductions in emissions, and has not been fully implemented. In Texas, for example, the greater Houston area will have its deadline extended until 2019 to implement the current standard. Many California jurisdictions, including Riverside and Sacramento have extended deadlines until June 2019. The San Joaquin Valley and the Los Angeles area have extended deadlines to attain until 2024, filing plans that attest that all known measures are not projected to attain the current standard and that "unknown measures" will be required, just to improve their local air quality to meet the current standard.

According to the EPA’s own studies, average ozone concentrations nationwide have decreased by 21 percent between 1980 and 2006. Furthermore, total emissions from the six key air pollutants regulated by the Clean Air Act, some of which are precursors to ozone formation, have declined by 54 percent between 1970 and 2006. These emissions will continue to fall without revising the current standard. According to EPA’s the Clean Air Trends Report, current regulations - including the Clean Air Interstate Rule (CAIR) and the highway and non-road diesel rules - will significantly reduce ground level ozone-causing emissions to drop over the next two decades. Power plant emissions will drop by 50 percent by 2015, and mobile source emissions will drop by more than 70 percent by 2030, all within the context of the current standard. Also, these air pollution emission reductions have taken place within the context of a growing economy, with energy consumption in the U.S. having increased by more than 176 percent since passage of the Clean Air Act in 1970.

### **IV. A More Stringent Ozone NAAQS Will Diminish U.S. Energy Supplies, Competitiveness**

The manufacturing sector uses about one-third of the nation’s energy, including one-third of its natural gas and almost 30 percent of its electricity. Compliance with regulations promulgated pursuant to the CAA such as the ozone NAAQS, among others, comprise a large percentage of energy and electricity costs for American manufacturers and consumers. According to a recent NAM study, external overhead costs, including regulation and rising energy prices, add approximately 31.7 percent to U.S. manufacturers’ unit labor costs relative to their major foreign competitors. More specifically, as a percentage of output, American

manufacturers spend considerably more on pollution abatement than do their competitors in Germany, Japan, France, the U.K., Canada, Mexico, China, South Korea and Taiwan. Accordingly, the NAM has a vested interest in the EPA's development of rules that address air pollutants in a cost-effective manner without interfering with affordable and reliable energy for American consumers and manufacturers.

The U.S. is projected to spend approximately \$9.6 billion per year on compliance costs with the current standard by 2010. To date, the U.S. has spent more than \$180 billion on all CAA programs. A more stringent ozone standard could cost industry approximately \$22 billion in additional annual compliance costs, further undermining competitiveness and diverting resources from investments in technological innovation.

By further restricting NOx emissions, a more stringent ozone NAAQS will also increase demand for already scarce natural gas supplies, and promote fuel switching from coal. The U.S. has the most plentiful coal reserves in the world, and modern technologies including coal gasification make it more environmentally sound than ever. Increasing demand for natural gas will continue to harm the manufacturing sector without yielding commensurate environmental benefits.

The NAM supports continued progress, enhancing air quality while growing the economy, under the CAA. The NAM urges the EPA to streamline existing programs where possible to give business planners the certainty necessary to make capital expenditures. Such streamlining will actually assist the EPA in achieving its statutory mandate to improve environmental quality by allowing industry to develop more efficient technologies. The EPA's current proposal to impose a stricter ozone standard will only obstruct innovation, and therefore ultimately have an adverse impact on achieving environmental quality goals.

## **V. NAAQS Impacts on Small Manufacturers and Communities**

Without emission offsets, an economy can't grow. At FR page 37908, the EPA asserts "NAAQS do not have significant impacts upon small entities because NAAQS themselves impose no regulations upon small entities." We disagree with this assertion; the setting of the standard leads to potentially new areas of the country being classified non-attainment. This designation is attached to the NAAQS standard level and precedes the step at which State and Local Governments regain a level of control (the State Implementation Plan (SIP) process. New non-attainment areas are subject to new non-attainment rules which can have the effect of a) severely limiting the growth of existing manufacturing business with expansion plans or b) preventing new business (such as oil and gas recovery projects) from locating in non-attainment areas).

At FR page 37908, the EPA also states that "we continue to be interested in the potential impacts of the proposed rule on small entities and welcome comments on issues related to such impacts." An example follows of the deleterious consequences of a new non-attainment designation specific to the Oil and Gas Industry (some of whom are "small entities") and the often "small communities" to which they bring jobs, tax payments, and local U.S. based energy supplies.

States have historically relied on regulating a wide variety of commercial and industrial sources that emit pollutants as their only alternative to bring the area into attainment with the NAAQS. However as non-attainment counties become more rural (as projected by the EPA in the RIA), the choices of sources that can be controlled to generate emission offsets become very limited, and in many cases do not exist. Two examples illustrate this point:

**Example 1- Existing Point Sources in a new non-attainment area (well controlled)**

The required emission reduction from existing equipment (Reasonably Available Control Technology, RACT – may consider economics) may not be sufficient to the 15 percent emission reduction initial or the 3 percent reasonable progress required in the State Implementation Plan (SIP) process as a minimum. In these cases, RACT approaches the Lowest Achievable Emission Reduction (LAER – does not consider economics) required for new equipment installations. Any emissions reduction required as RACT are not available as offsets (i.e. 1.2 tons of emission reductions for every 1 ton of emission increase) and are required for new projects.

**Example 2 - New non-attainment areas with no/limited offsets due to low/no Point Source population from which to purchase**

In most areas where oil and gas (O&G) is produced, agriculture and O&G dominate the economy. Most of the agricultural sources, as well as vehicle emissions, are considered mobile sources whose emission controls are preemptively set by the EPA. The O&G sources will probably be expected to make the majority of the RACT emission reductions required by the SIP process. Many older O&G sites, predominately operated by small independent producers, may not be able to afford the emission controls required by RACT. Production volume in O&G wells decline with age. To maintain the production in the field, new wells must be drilled and/or new compressors installed. The offsets required to install these new projects may be difficult or impossible to find.

O&G projects on federal lands must satisfy the NEPA (National Environmental Policy Act), typically by completing one or more Environmental Impact Statements (EIS) with an acceptable impact finding. Recently approved EISs have included very strict emission limitations on the proposed projects, some that are proving to be difficult or impossible to comply with. No O&G EIS has been attempted within a non-attainment area at this time. The proposed NAAQS will probably bring some of the O&G operations on federal lands into non-attainment. It is uncertain whether an O&G project in a non-attainment area can pass the EIS hurdle.

**VI. EPA’s Current Proposal Triggers Executive Order 13211**

Given the adverse potential impacts on natural gas supplies that could result from implementation of the current proposal, the EPA must comply with Executive Order (E.O.)13211. Because a more stringent ozone standard would result in more pressure to reduce NOx emissions, a precursor to ozone formation, many utilities and fuel burning industries would

be forced to switch from coal to natural gas in order to produce electricity and other forms of energy. With natural gas already scarce, increased demand would result in higher prices for all consumers, including industry. Midwestern states including Illinois, Indiana, Wisconsin and Ohio would be especially hard hit given the large number of projected non-attainment areas resulting from a more stringent standard, combined with the fact that those states rely on coal to produce a higher percentage of their electricity than other parts of the country. In response to the recognition that many environmental laws drive demand for specific types of energy, the Bush Administration issued E.O. 13211 in May 2001 to craft balanced federal policies that weigh economic costs and environmental quality. This executive order requires federal regulators to analyze the impacts of the proposed NAAQS on energy supplies. The full text of E.O. 13211 can be found in the attached appendix.

## **VII. Conclusion**

The National Association of Manufacturers supports preservation of the existing ozone standard. Industry and federal, state and local regulators are working diligently to implement the current ozone standard and other rules pursuant to the CAA, all of which have reduced average ozone concentrations nationwide by more than 20 percent since the 1980s. The EPA's current standard is therefore fulfilling the EPA's mission to protect environmental quality and public health. The manufacturing sector and its 14 million workers urge the EPA to keep the existing standard and reject options that will lead to a more stringent regulation. The NAM urges the EPA to only issue proposals that are supported by sound science and will capitalize on the manufacturing sector's demonstrated record of technological innovation that continues to improve the quality of life for all Americans. For more information related to these comments, please contact Bryan Brendle at (202) 637-3176 or [bbrendle@nam.org](mailto:bbrendle@nam.org). Thank you for the opportunity to comment.

## Appendix

### 1. **Executive Order 13211**

#### **Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use**

By the authority vested in me as President by the Constitution and the laws of the United States of America, and in order to appropriately weigh and consider the effects of the Federal Government's regulations on the supply, distribution, and use of energy, it is hereby ordered as follows:

Section 1. Policy. The Federal Government can significantly affect the supply, distribution, and use of energy. Yet there is often too little information regarding the effects that governmental regulatory action can have on energy. In order to provide more useful energy-related information and hence improve the quality of agency decision making, I am requiring that agencies shall prepare a Statement of Energy Effects when undertaking certain agency actions. As described more fully below, such Statements of Energy Effects shall describe the effects of certain regulatory actions on energy supply, distribution, or use.

Section 2. Preparation of a Statement of Energy Effects.

- a. To the extent permitted by law, agencies shall prepare and submit a Statement of Energy Effects to the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, for those matters identified as significant energy actions.
- b. A Statement of Energy Effects shall consist of a detailed statement by the agency responsible for the significant energy action relating to:
  - i. any adverse effects on energy supply, distribution, or use (including a shortfall in supply, price increases, and increased use of foreign supplies) should the proposal be implemented, and
  - ii. reasonable alternatives to the action with adverse energy effects and the expected effects of such alternatives on energy supply, distribution, and use.
- c. The Administrator of the Office of Information and Regulatory Affairs shall provide guidance to the agencies on the implementation of this order and shall consult with other agencies as appropriate in the implementation of this order.

Section 3. Submission and Publication of Statements.

- a. Agencies shall submit their Statements of Energy Effects to the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, whenever they present the related submission under Executive Order 12866 of September 30, 1993, or any successor order.

- b. Agencies shall publish their Statements of Energy Effects, or a summary thereof, in each related Notice of Proposed Rulemaking and in any resulting Final Rule.

Section 4. Definitions. For purposes of this order:

- a. "Regulation" and "rule" have the same meaning as they do in Executive Order 12866 or any successor order.
- b. "Significant energy action" means any action by an agency (normally published in the Federal Register) that promulgates or is expected to lead to the promulgation of a final rule or regulation, including notices of inquiry, advance notices of proposed rulemaking, and notices of proposed rulemaking:
  - (1)(i) that is a significant regulatory action under Executive Order 12866 or any successor order, and
  - (ii) is likely to have a significant adverse effect on the supply, distribution, or use of energy; or
  - (2) that is designated by the Administrator of the Office of Information and Regulatory Affairs as a significant energy action.
- c. "Agency" means any authority of the United States that is an "agency" under 44 U.S.C. 3502(1), other than those considered to be independent regulatory agencies, as defined in 44 U.S.C. 3502(5).

Section 5. Judicial Review. Nothing in this order shall affect any otherwise available judicial review of agency action. This order is intended only to improve the internal management of the Federal Government and does not create any right or benefit, substantive or procedural, enforceable at law or equity by a party against the United States, its agencies or instrumentalities, its officers or employees, or any other person.