

EPA'S PROPOSED OZONE STANDARDS

EPA is currently in the process of reviewing the 2008 National Ambient Air Quality Standards (NAAQS) for ozone, in accordance with the Clean Air Act mandate for reviewing the rule every five years. A new rule is expected to be proposed in the latter half of 2013, followed by the adoption of a final rule in late 2014. It is expected that the level of the 8-hour ozone standard will be decreased from its current level of 0.075 parts per million (ppm) to a level between 0.060 and 0.070 ppm in the new rule. EPA is concurrently working to intensify enforcement of the existing 0.075 ppm standard.¹

Industries and Transportation Affected by the Ozone Rule

Volatile organic compounds (VOCs) and nitrogen oxides (NO_x) combine with sunlight in the atmosphere to create ozone. Thus, companies that shape, paint or coat metals; that print, coat or dye anything from fabrics to packaging and advertising materials; or that make or use paints, solvents, inks, degreasers or plastics (and hence emit VOCs) are affected by ozone regulations. Public transportation (cars and buses) and companies that have on-site boilers or furnaces (and hence emit NO_x) are also likely to be affected.

Based on 2006-2008 air quality data utilized by EPA, there are 515 counties with monitors that would violate a tightened standard of 0.070 ppm and 650 counties with monitors that violate a more stringent standard of 0.060 ppm. Estimated costs for the expected new 2014 rule range from \$19 billion annually (corresponding to a 0.070 ppm standard) to \$90 billion annually (corresponding to a 0.060 ppm standard).

Consequences of Nonattainment Status

Businesses and local governments located in a county or region that does not meet ozone standards and is designated as a "nonattainment area" face several consequences. First, as soon as nonattainment status is determined, it will become very difficult in those areas for printing and packaging companies, manufacturers and others to obtain a permit to either modify an existing facility or to build a new facility in a way that increases the emissions of any pollutant because the area itself is not attaining the new standard. Second, affected manufacturers and others in nonattainment areas will over time have to implement stringent VOC and NO_x containment and destruction technologies or make significant process changes to reduce emissions. Finally, some

¹ EPA estimates that the costs for industry to implement the 0.075 ppm standard from the 2008 NAAQS rule would range from a low of \$7.6 billion to a high of \$8.8 billion annually in 2020.

counties and regions will be forced to impose transportation restrictions because NO_x is a by-product of combustion and is emitted from cars and buses.

EPA anticipates that certain available control technologies may be employed to satisfy new emission requirements. For example, manufacturing facilities may try to control VOC emissions by installing incinerators to destroy organics. Printing facilities may operate “permanent total enclosures” intended to capture 100% of VOC emissions coupled with incinerators to destroy the captured emissions. EPA admits that permanent total enclosures would raise OSHA issues regarding worker safety. In order to adequately reduce VOC emissions, companies that paint or coat surfaces would potentially have to switch to ultra low solvent or powder based paints. With respect to NO_x, the technologies EPA expects industry to use include catalytic converters (which can be expensive to install and operate) and low NO_x burners coupled with flue gas recirculation or selective catalytic reduction. For NO_x non-attainment counties, transportation restrictions would also have to be implemented.

Implementation of the 2008 Ozone Standards

On April 30, 2012, EPA issued final area designations for the 2008 ozone standards.² As compared to the 113 “nonattainment” designations for the 1997 ozone standards (0.084 ppm), EPA only designated 45 nonattainment areas for the more stringent 2008 standards (0.075 ppm), indicating that progress has been made in reducing ozone levels in affected areas. The nonattainment areas for the 2008 ozone standards include 184 whole nonattainment counties and 37 partial nonattainment counties. Only one of these areas (in Wyoming) is receiving a “nonattainment” designation for the first time.

EPA also published a rule establishing its method for classifying ozone nonattainment areas for the 2008 standards. EPA lists five possible classifications for nonattainment areas: Marginal (closest to meeting the standards), Moderate, Serious, Severe, and Extreme (farthest from meeting the standards). Of the 45 nonattainment areas for the 2008 standards³, 35 have been listed in the “Marginal” category and are expected to be able to achieve attainment within three years, in part due to emission reducing rules that are already in place or being finalized (such as the Cross-State Air Pollution Rule and the MACT Standards for Boilers). States with areas designated as “Moderate” or higher must submit to EPA by 2015 State Implementation Plans (SIPs) detailing how they will meet the standards. Emissions from industrial facilities and transportation-related sources will be closely regulated in these areas. Eight of the ten areas listed for now as “Moderate” or higher are in California, and the remaining two “Moderate” areas are Baltimore, MD, and Dallas – Fort Worth, TX. Areas with more serious classifications will have more time to achieve compliance with the standard due to the severity of their ozone

² See Appendix A for map of nonattainment areas.

³ EPA will release the final designation for the Chicago-Naperville, IL-IN-WI area by May 31, 2012, bringing the total number of nonattainment areas to 46.

concentrations.⁴ EPA expects to propose a second rule soon that will address implementation issues such as anti-backsliding, State Implementation Plan deadlines, Reasonably Available Control Technology/Measures, and contingency measures.

On April 4, 2012, EPA announced a new program called Ozone Advance⁵, which encourages attainment areas that meet current ozone standards to develop local emission reduction strategies and programs for maintaining future compliance with these standards. Areas that have been designated as “nonattainment” areas for the 2008 ozone NAAQS standard are not eligible to participate. EPA encourages participating local governments, states, and tribes to achieve multi-pollutant reductions when possible (particularly with NO_x and PM emissions).⁶ Although areas participating in Ozone Advance are not precluded from being designated as “nonattainment” areas as a result of future ozone standards, EPA notes that the reductions these areas achieve through participation in the program will likely place them in a better position for achieving attainment. Hence, if EPA tightens ozone standards in the new rule scheduled to be proposed in late 2013 and promulgated in 2014, then areas that have implemented Ozone Advance programs will have at least partially progressed towards achieving the likely more stringent 2014 standards.

Regulatory Actions

The current 0.075 ppm limit was established in the 2008 final NAAQS rule promulgated under the Bush administration, which faced opposition from environmental groups including EPA’s Clean Air Scientific Advisory Committee (CASAC) for being too lenient with the standard. CASAC instead recommended a primary ozone standard in the range of 0.060 to 0.070 ppm as well as a separate, seasonally-adjusted secondary standard. In response to these concerns, EPA announced in September 2009 that it would reconsider the 2008 rule to ensure that it was scientifically validated and that it adequately protected public health and the environment.

As part of this reconsideration, EPA issued a proposed rule in January 2010 seeking to establish an 8-hour primary ozone standard between 0.060 and 0.070 ppm as well as a seasonal secondary standard to protect sensitive vegetation and ecosystems. A primary standard of 0.060 ppm would have put approximately 650 counties into nonattainment status and cost up to \$90 billion annually. After receiving comment on this proposal, EPA submitted a follow-up draft rule to the Office of Management and Budget in July 2011 that would have established a primary standard of 0.070 ppm, putting up to 515 counties into nonattainment status and costing between \$19 and \$25 billion annually. However, on September 2, 2011, President Obama prevented the

⁴ See Table 1 for compliance deadlines in each category.

⁵ Ozone Advance is similar to EPA’s 2001 and 2006 Ozone Flex programs, but it differs in that it extends participation to more areas and includes simplified requirements for program participation.

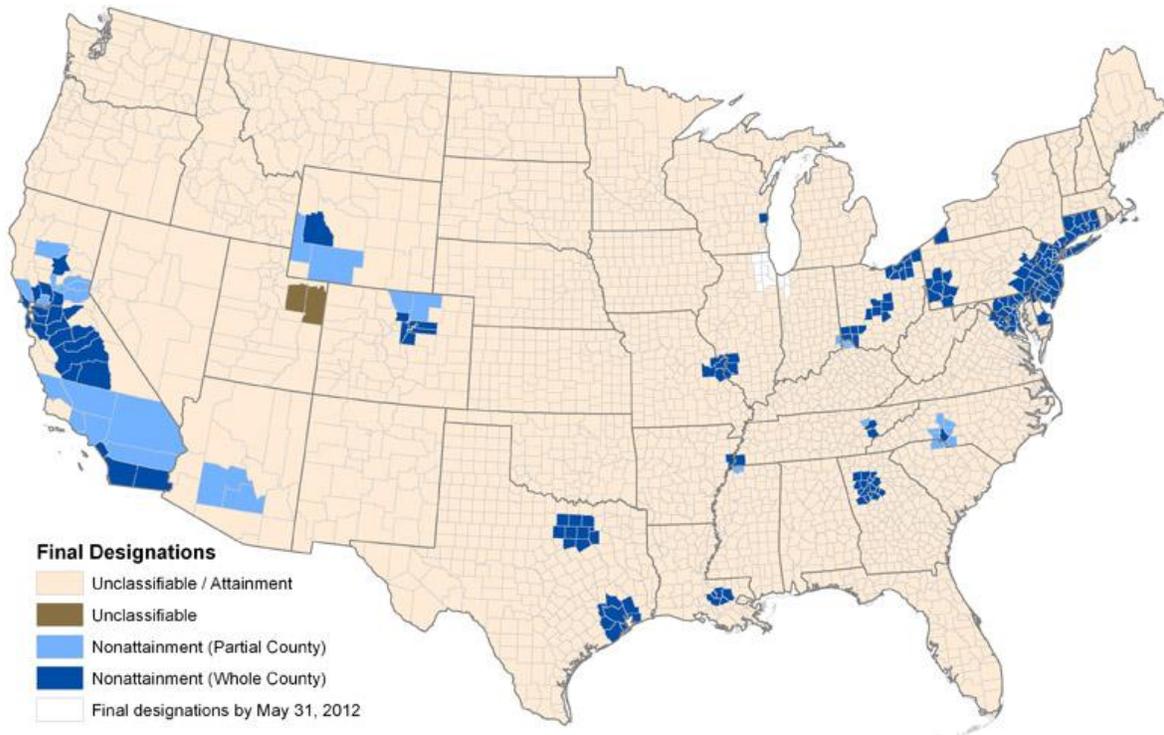
⁶ EPA envisions that a program similar to Ozone Advance but focusing on PM emissions in near-nonattainment areas may follow soon.

release of this draft rule in order to avoid regulatory burdens and uncertainty given the upcoming NAAQS review period in 2013, after which a new rule would likely be promulgated anyway.

On September 22, 2011, EPA Administrator Lisa Jackson announced to Congress that EPA would comply with the President's decision but that it would be implementing the 2008 NAAQS while the scheduled review process continued, thereby replacing the previous 1997 standard of 0.084 ppm with the 2008 standard of 0.075 ppm. This action was once again met with criticism and lawsuits from environmental groups that argued that this standard was not stringent enough. However, at this time, it is unlikely that any alternative standards could be adopted before the expected release of a new final rule after the conclusion of the current NAAQS review. The new more stringent standard of 0.060 ppm to 0.070 ppm is as noted above expected to be proposed in 2013 and adopted in 2014.

Appendix A

Final Nonattainment Areas for the 2008 Ozone Standards



Notes:

EPA does not intend to designate as nonattainment any areas outside the Continental US.

Table 1

Attainment Dates for the 2008 Primary Ozone NAAQS

Classification	Attainment Date	Attainment Dates for Areas Designation in 2012
Marginal	December 31 of the calendar year 3 years from the date of designation	December 31, 2015
Moderate	December 31 of the calendar year 6 years from the date of designation	December 31, 2018
Serious	December 31 of the calendar year 9 years from the date of designation	December 31, 2021
Severe	December 31 of the calendar year 15 years from the date of designation	December 31, 2027
Extreme	December 31 of the calendar year 20 years from the date of designation	December 31, 2032