

The 2008 8-Hour Ozone Standard: 0.075 ppm

By Mike Hockley¹ & Katie Jo Wheeler²

Summary

On May 27, 2008, the 8-hour ozone standard changed from 0.084 ppm to 0.075 ppm. This change triggered an attainment designation process by which Missouri submitted recommendations to EPA outlining proposed area boundaries and classifications. Missouri recommended counties in the Kansas City and St. Louis metropolitan areas, as well as Ste. Genevieve and Perry counties south of St. Louis, be designated nonattainment areas under the new 0.075 ppm standard.

As EPA has not yet finalized attainment area designations, the Missouri Department of Natural Resources (“MDNR”) has not yet proposed any state implementation plans (“SIPs”) under the new standard. Such plans will be due to EPA in March 2013. The Kansas City and St. Louis areas already are operating under SIPs issued under the 1997 standard. In addition to required plans, some areas have implemented voluntary measures such as clean air action plans (“CAAPs”) and community initiatives.

The Old 8-Hour Standard: 0.084 ppm

Under the 1997 standard of 0.08 parts per million (rounded from .084 ppm),³ all areas in Missouri are designated as attainment or attainment/unclassifiable except the St. Louis metropolitan area. The designations under the 1997 standard went into effect in the summer of 2004. The St. Louis area counties of Franklin, Jefferson, St. Charles, St. Louis, and the City of St. Louis are designated as moderate nonattainment under the 0.084 ppm standard.

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³ Generally, instruments measure ozone to three decimal places. Since the 1997 standard was .08, any reading between .080 and .084 would be rounded to .08. Any reading at or above .085 would constitute an exceedance. Consequently, the 1997 standard is commonly referred to as 0.084 ppm.

1997 8-HOUR OZONE STANDARD: 0.084 PPM
MISSOURI DESIGNATIONS⁴
(as of Sept. 2, 2008)

| Designated Area | Counties Included | Designation |
|-----------------|--|--|
| Kansas City | Cass, Clay, Jackson, Platte | Effective June 2, 2005, redesignated from unclassifiable to attainment |
| St. Louis | Franklin, Jefferson, St. Charles, St. Louis, City of St. Louis | Moderate nonattainment (Maximum attainment date = June 2010) |
| Other | All other counties | Attainment/unclassifiable |

EPA, Region 7: State Designations for the 1997 8-Hour Ozone Standard, <http://www.epa.gov/ozonedesignations/1997standards/regions/region7desig.htm> (last updated Sept. 2, 2008).

The New 8-Hour Standard: 0.075 ppm

Effective May 27, 2008, EPA revised the primary 8-hour ozone standard from 0.08 ppm⁵ to 0.075 ppm.⁶ 40 C.F.R. § 50.15 (Westlaw through July 2, 2009) (2008 standard); 40 C.F.R. § 50.10 (1997 standard); *see also* National Ambient Air Quality Standards, 73 Fed. Reg. 16,436 (March 27, 2008) (codified at 40 C.F.R. pts. 50 and 58) (promulgating the 2008 standard).⁷ EPA also revised the secondary standard, which is now equivalent to the new 0.075 ppm primary standard. 40 C.F.R. § 50.15; *see also* 73 Fed. Reg. at 16,472-73. An area is in attainment when “the 3-year average of the annual fourth-highest daily maximum 8-hour average O₃ concentration is less than or equal to 0.075 ppm.” § 50.15.

⁴ In Kansas, the Kansas City-area counties of Johnson, Linn, Miami, and Wyandotte were redesignated from unclassifiable to attainment effective June 2, 2005. EPA, Region 7: State Designations for the 1997 8-Hour Ozone Standard. In Illinois, the St. Louis-area counties of Jersey, Madison, Monroe, and St. Clair were designated as moderate nonattainment with a maximum attainment date of June 2010. *Id.*

⁵ *See* fn. 3, *supra*.

⁶ Some documents refer to the standard as 75 parts per billion. *See, e.g.*, MDNR, Ozone Nonattainment Area Recommendations (Mar. 11, 2009), *available at* http://www.epa.gov/ozonedesignations/2008standards/rec/letters/07_MO_rec.pdf.

⁷ The 1-hour ozone standard no longer applies to Missouri. 40 C.F.R. § 81.326, fn. 2 to Missouri–Ozone (1-Hour Standard) (“The 1-hour ozone standard [of 0.12 ppm] is revoked effective June 15, 2005 for all areas in Missouri.”) By operation of 40 C.F.R. § 50.9(b), the 1-hour ozone standard “no longer appl[ies] to an area one year after the effective date of the designation of that area for the 8-hour ozone NAAQS.” June 15, 2005 marked one year after EPA’s 8-hour ozone designations became effective, so the 1-hour standard was revoked on that date for almost all areas, including those in Missouri, Kansas, and Illinois. EPA, Green Book: 1-Hour Ozone Information, <http://www.epa.gov/air/oaqps/greenbk/oindex.html> (last updated June 11, 2009). Only the areas participating in the Early Action Compact program continued under the 1-hour standard as the program deferred the 8-hour ozone designations for those areas. *Id.* EPA issued 8-hour designations for the EAC areas effective April 15, 2008, which resulted in the revocation of the 1-hour standard for those areas on April 15, 2009. *Id.*

**Current Status of the Procedural Process:
Designation & Implementation**

Missouri has already issued its area designation recommendations to EPA. The States' area designation recommendations were due to EPA on March 12, 2009 (one year after the promulgation of the new standard). 73 Fed. Reg. at 16,503. MDNR submitted its recommendations on March 11, 2009. MDNR, Ozone Nonattainment Area Recommendations (Mar. 11, 2009). MDNR recommended several counties in the Kansas City, St. Louis, Ste. Genevieve, and Southeast Missouri areas be designated as nonattainment areas. *Id.* at pp. 1-2. MDNR proposed two alternate designation scenarios for the Springfield and El Dorado Springs areas depending on which data EPA uses.⁸ *Id.* at p. 2. (The most recent data suggest that the Springfield and El Dorado Springs areas should be designated as in attainment.) *Id.* MDNR also recommended St. Francois and Cape Girardeau counties be designated as unclassifiable, and the rest of Missouri counties be designated as attainment/unclassifiable. *Id.* at pp. 1-2.

| 2008 8-HOUR OZONE STANDARD: 0.075 PPM MISSOURI PROPOSED DESIGNATIONS⁹ | | |
|---|---|------------------------------|
| Designated Area | Counties Included | Designation |
| Kansas City | Cass, Clay, Clinton, Jackson, Platte | Nonattainment |
| St. Louis | Franklin, Jefferson, Lincoln, St. Charles, St. Louis, City of St. Louis | |
| Ste. Genevieve | Ste. Genevieve | |
| Southeast Missouri | Perry | |
| Springfield | Christian, Greene, Stone, Tracey | Nonattainment (2005-07 data) |
| El Dorado Springs | Cedar (rural transport) | Attainment (2006-08 data) |
| Other | St. Francois | Unclassifiable |
| | Cape Girardeau | |
| | All other counties | Attainment/unclassifiable |

⁸ If EPA bases its designation on the 2005-2007 emissions data, MDNR recommends the areas be designated as nonattainment for violating the 0.075 ppm standard. Ozone Nonattainment Area Recommendations at p. 2. If EPA bases its designation on the 2006-2008 data, MDNR recommends that these areas be designated as in attainment because the standard was met during the later time frame. *Id.*

⁹ Kansas has recommended Johnson and Wyandotte counties in the Kansas City metropolitan area be designated as nonattainment. Kan. Dep't of Health & Env't, Ozone Nonattainment Area Recommendations (Feb. 6, 2009), *available at* http://www.epa.gov/ozonedesignations/2008standards/rec/letters/07_KS_rec.pdf. Similarly, Illinois has recommended Madison, Monroe, and St. Clair counties in the St. Louis metropolitan area be designated as nonattainment. Ill. EPA, Recommendations for Attainment and Nonattainment Designations (Mar. 9, 2009), *available at* http://www.epa.gov/ozonedesignations/2008standards/rec/letters/05_IL_rec.pdf.

See *id.*

MDNR is waiting for EPA to issue designations and release the implementation rule before drafting and submitting any SIPs. EPA must issue designations by March 12, 2010, or by March 12, 2011 if EPA needs further information to determine the designations. 73 Fed. Reg. at 16,503. Missouri must issue an “infrastructure” SIP¹⁰ by March 12, 2011 (three years after the issuance of the new standard). 42 U.S.C.A. § 7410(a)(1) (Westlaw through P.L. 111-35, approved June 30, 2009); *see also* 73 Fed. Reg. at 16,503. Missouri must take additional steps for nonattainment areas, including “timelines for when designated nonattainment areas must attain the standards, deadlines for developing SIPs that demonstrate how the State will ensure attainment of the standards, and specific emissions control requirements.” 73 Fed. Reg. at 16,503. The deadlines for these requirements will be within three years after the final area designations, which will be no later than March 2013.¹¹ 42 U.S.C.A. § 7502(b); *see also* 73 Fed. Reg. at 16,503. EPA had planned to address these requirements and deadlines in a proposed rulemaking in the fall of 2008, 73 Fed. Reg. at 16,503, but a rule has yet to be proposed.

| TIMELINE | |
|--|------------|
| EPA makes final designations of attainment and nonattainment areas (effective 60 days after publication in the Federal Register) | March 2010 |
| SIPs due to EPA | March 2013 |
| States must meet the standard (deadline varies depending on severity of problem) | 2013-2030 |

Impact of Nonattainment Designation

If an area is designated as nonattainment, air emissions sources within that area are subject to more stringent requirements. For example, new or modified major sources of air emissions would be required to control emissions to meet lowest achievable emissions rates (“LAER”) and may be required to purchase offsets, whereas new or modified major sources within attainment areas are subject to the prevention of significant deterioration (“PSD”) permitting requirements which include the less stringent best available control technology (“BACT”) and generally do not require offsets. Moreover, the SIP may impose additional limitations on air sources within a nonattainment area. The practical impact of being designated as nonattainment is that projects that would include major air emissions sources will be extremely difficult, if not impossible, to permit.

In addition, areas designated as nonattainment are required to take steps to achieve attainment with the air quality standards. Each area so impacted takes a different approach to achieve attainment, but the practical effect is new sources will be severely limited, existing sources may be required to reduce

¹⁰ Infrastructure SIPs “provide assurances of State resources and authorities, and establish the basic State programs, to implement, maintain, and enforce the new or revised standards.” 73 Fed. Reg. at 16,503.

¹¹ If EPA exercises its extension option for designations, the deadlines will be no later than March 2014. *See* 73 Fed. Reg. at 16,503.

emissions, and the community may require other measures such as reformulated gasoline, vehicle emissions inspections, increased bus service, high occupancy vehicle lanes, parking surcharges, etc. For communities that have not previously experienced the trauma of being designated as nonattainment, such a designation places a strain on local businesses in determining and implementing steps to come into compliance.

Resources

Missouri SIPs. For information regarding current attainment and maintenance strategies, consult Missouri's state implementation plans. MDNR posts Missouri air pollution SIPs on its website. See MDNR, Air Pollution Control Program State Implementation Plans, <http://www.dnr.mo.gov/env/apcp/sips.htm> (last visited July 21, 2009).

*The Kansas City and Springfield CAAPs.*¹² The Kansas City and Springfield metropolitan areas have implemented voluntary clean air action plans. See Mid-America Regional Council, Clean Air Action Plan for the Kansas City Region (May 2005), available at http://www.marc.org/Environment/airQ/pdf/clean_air_action_plan.pdf ("KC CAAP"); see also Ozarks Clean Air Alliance, Clean Air Action Plan for Southwest Missouri (June 2009), <http://www.showmecleanair.com/downloads/CAAPJune2009.pdf> ("Springfield CAAP").

Kansas City's CAAP implements four major groups of strategies: (1) "new emissions controls on existing power plants;" (2) "strategies to reduce idling, replacing old equipment with newer, lower emitting equipment, and retrofit older engines with emissions control equipment;" (3) public education to include an "annual air quality awareness campaign;" and (4) sustainable growth and development to include "land use policies that promote a decreased reliance on the automobile, natural resource conservation techniques that reduce the urban heat island effect, and green building practices that increase resource efficiency." KC CAAP at pp. 7-9.

The Springfield CAAP contains two sets of strategies to be implemented by 2010 and 2013, respectively. The measures focus on:

- Public education and notification, including evaluation tools and recognition of excellent environmental performance;
- Reductions in idling, nitrogen oxides ("NO_x") from power plants, diesel emissions, and gasoline vapors;
- Energy conservation;
- Alternatives to traditional transportation and lawn and garden equipment;
- Technical assistance; and

¹² St. Louis does not have a CAAP, but the area does have a regional clean air initiative. The St. Louis Regional Clean Air Partnership ("SLRCAP"), a public-private partnership, seeks "to increase awareness of regional air quality issues and to encourage activities to reduce air pollution emissions." SLRCAP, About Us, <http://www.cleanair-stlouis.com/about-us.html> (last visited July 15, 2009). For more information, consult <http://www.cleanair-stlouis.com>.

- “Smart growth” sustainable planning.

Springfield CAAP at pp. 14-20.

The Springfield CAAP does not identify specific contingency measures should the Springfield area violate the new standard. Springfield CAAP at p. 20. On the other hand, the Kansas City CAAP recommends certain regulatory measures be considered if the area violates the standard. KC CAAP at pp. 9-10. The CAAP discusses “regulatory measures to better control emissions from cars and trucks, from large industrial sources, and from smaller, currently unregulated sources.” *Id.* at p. 9. These controls include a gas cap replacement program, a remote-sensing based vehicle emissions testing program, and reformulated gas. *Id.* at 10. The Plan also suggests modifying existing reasonably available control technology (“RACT”) rules for volatile organic compounds (“VOCs”) and implementing new RACT rules for VOCs and NO_x. *Id.*