6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 52 and 81

[EPA-R05-OAR-2011-0698; FRL-9948-00-Region 5]

Approval and Promulgation of Air Quality Implementation Plans; Indiana; Redesignation of the Indiana portion of the Louisville Area to Attainment of the 1997 Annual Standard for Fine Particulate Matter

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule; supplemental.

SUMMARY: The Environmental Protection Agency (EPA) is issuing a supplement to its July 11, 2013, proposed approval of Indiana's request to redesignate the Indiana portion of the Louisville, Indiana-Kentucky, area to attainment for the 1997 annual national ambient air quality standard (NAAQS or standard) for fine particulate matter ($PM_{2.5}$). After EPA's proposed redesignation in 2013, an audit of the Kentucky monitoring program identified problems which invalidated monitoring data for 2012 and the beginning of 2013. Because of this invalid data, the area could not meet the requirement that the entire area must demonstrate attainment of the standard using the most current three years of data. This supplemental proposal provides new quality-assured, quality-controlled data for the

most recent three years of data showing that the entire area attains the 1997 $PM_{2.5}$ standard. In the supplemental proposal EPA is proposing that the entire Louisville area is attaining the 1997 $PM_{2.5}$ NAAQS based on the most recent three years of data. EPA also discusses the maintenance plan out-year emission projections, and the Cross-State Air Pollution Rule (CSAPR) remanded budgets impact on the Louisville area – because the status of these issues has changed from the initial proposal to now. EPA is seeking comment only on the issues raised in this supplemental proposal, and is not re-opening for comment other issues raised in the July 11, 2013, proposed approval.

DATES: Comments must be received on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].**

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R05-OAR-2011-0698 at http://www.regulations.gov or via email to blakley.pamela@epa.gov. For comments submitted at Regulations.gov, follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. For either manner of submission, EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia

submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the "For Further Information Contact" section. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit http://www2.epa.gov/dockets/commenting-epa-dockets.

FOR FURTHER INFORMATION CONTACT: Carolyn Persoon, Environmental Engineer, Control Strategies Section, Air Programs Branch (AR-18J), Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, (312) 353-8290, persoon.carolyn@epa.gov.

SUPPLEMENTARY INFORMATION: Throughout this document whenever "we," "us," or "our" is used, we mean EPA. This supplementary information section is arranged as follows:

I. What Is the Background for the Supplemental Proposal?

On June 16, 2011, the Indiana Department of Environmental Management (IDEM) submitted a request for EPA to approve the redesignation of the Indiana portion of the Louisville (KY-IN) (Madison Township, Indiana, Jefferson County, Kentucky and Clark and Floyd Counties, Indiana) nonattainment area to attainment of the 1997 $PM_{2.5}$ annual standard. Indiana's June 16, 2011, redesignation submittal contained complete, quality-assured and certified air monitoring data for the years 2008-2010.

On July 11, 2013, EPA proposed to determine that the Indiana portion of the Louisville area had met the requirements for redesignation under section 107(d)(3)(E) of the Clean Air Act (CAA) (78 FR 41735). This proposal was based upon our review of ambient air monitoring data from 2009-2011, and preliminary data from 2012. It contained several related actions.

First, EPA proposed to approve the request from IDEM to change the legal designation of the Indiana portion of the Louisville area from nonattainment to attainment for the 1997 annual $PM_{2.5}$ NAAQS. EPA also proposed to approve Indiana's $PM_{2.5}$

maintenance plan for the Indiana portion of the Louisville area as a revision to the Indiana state implementation plan (SIP) because the plan met the requirements of section 175A of the CAA. In addition, EPA proposed to approve emissions inventories for primary $PM_{2.5}$, and all its precursors as satisfying the requirement in section 172(c)(3) of the CAA for a comprehensive, current emission inventory. Finally, EPA proposed a motor vehicle emissions budget for the Indiana portion of the Louisville area. EPA did not receive adverse comments on the proposed rulemaking.

In August 2013, EPA issued results of a technical systems audit on the $PM_{2.5}$ laboratory in Kentucky, which invalidated the Jefferson County monitoring data for all of 2012, and a small portion of the monitoring data from 2013 (a portion of the first quarter). See the docket for the technical systems audit information. Since the area could no longer demonstrate attainment of the standard for the entire area, EPA did not finalize its proposal. Kentucky began collecting valid data in early 2013 (the end of the first quarter) after the monitoring audit issues had been addressed, resulting in a valid design value for the area using 2013-2015 data. Both Indiana and Kentucky certified valid data for 2015 in the beginning of 2016. EPA has approved the use of this quality-assured, quality-

controlled certified complete data for use in regulatory actions.

Today, EPA is publishing a supplement to its July 11, 2013, proposed rulemaking. The supplement is based on valid design values for the 2013-2015 period, demonstrating attainment of the standard for the entire Louisville area using the most recent three years of data. Preliminary data for 2016 shows that the entire Louisville area continues to attain the standard. This proposal also discusses the maintenance plan emission projections of 2025 and the impact of the budgets remanded under CSAPR on the Louisville area because the status of these issues has changed from the initial proposal.

II. On What Specific Issues Is EPA Taking Comments?

In this portion of EPA's supplemental proposal, EPA is soliciting comment on the limited issue of the 2013-2015 design values demonstrating attainment of the standard for the entire Louisville area, the maintenance plan emission projections for 2025, and the impact on the Louisville area of the 2015 D.C. Circuit decision remanding certain CSAPR budgets.

A. Louisville Area Design Values for 2013-2015; Entire Area Monitoring Attainment

EPA is proposing to determine that the Louisville area is attaining the 1997 annual $PM_{2.5}$ NAAQS based upon the most recent

three years of complete, certified and quality-assured data. Under EPA's regulations at 40 CFR 50.7, the annual primary and secondary $PM_{2.5}$ standards are met when the annual arithmetic mean concentration, as determined in accordance with 40 CFR part 50, appendix N, is less than or equal to 15.0 micrograms per cubic meter($\mu g/m^3$)at all monitoring sites in the area. Data are considered to be sufficient for comparison to the NAAQS if three consecutive complete years of data exist. A complete year of air quality data is comprised of four calendar quarters, with each quarter containing data from at least 75% capture of the scheduled sampling days. In this case, the 2009-2011 values were calculated prior to the audit invalidating data collected in the Kentucky portion of Louisville for 2012 and beginning of 2013 (portion of the first quarter). The 2013-2015 values are based on quality-assured, quality-controlled, certified complete data, and only included valid data collected after the audit issues were corrected. Preliminary data for 2016 shows the area continues to attain the standard. The Louisville design value for the most current three years of data is 11.7 $\mu g/m^3$.

Table 1. The 1997 Annual $PM_{2.5}$ Design Values for the Louisville Monitor with Complete Data for the 2009-2011[1], and 2013-2015 Design Value in $\mu g/m^3$.

County	Site	Design Value	Design Value 2013-

		2009-2011 ($\mu g/m^3$)	2015 ($\mu g/m^3$)
Clark County, IN	180190006	13.5	11.4
Clark County, IN	180190008	11.4	9.3
Floyd County, IN	180431004	12.3	10.0
Jefferson County, KY	211110043	12.6	11.3
Jefferson County, KY	211110051	12.7	11.7
Jefferson County, KY	211110067	12.1	10.5

[1] 2009-2011 design values are the design values for the area prior to data issues, and design values for 2013-2015 are the most recent three years of monitoring data showing that the area is attaining the standard.

Data recorded at monitors in 2013, 2014, and 2015 are considered valid and were collected after corrective actions resulting from the technical systems audit. These are the data on which EPA is basing its decision that the Louisville area has attained the 1997 annual $PM_{2.5}$ NAAQS.

B. Demonstration of Maintenance

Along with the redesignation request, Indiana submitted a revision to its $PM_{2.5}$ SIP to include a maintenance plan for the Indiana portion of the Louisville area, as required by section 175A of the CAA. Indiana's plan demonstrates maintenance of the 1997 annual $PM_{2.5}$ standard through 2025 by showing that current and future emissions of oxides of nitrogen (NO_X), directly emitted $PM_{2.5}$, and sulfur dioxide (SO_2) in the area remain at or below attainment year emission levels. Section 175A requires a state seeking redesignation to attainment to submit a SIP revision which provides for the maintenance of the

NAAQS in the area "for at least 10 years after the redesignation." See September 4, 1992, memorandum from John Calcagni, entitled "Procedures for Processing Requests to Redesignate Areas to Attainment," p. 9. Where the emissions inventory method of showing maintenance is used, its purpose is to show that emissions during the maintenance period will not increase over the attainment year inventory. Calcagni Memorandum, pp. 9-10.

As discussed in detail in the section below, the state's maintenance plan submission expressly documents that the area's emissions inventories will remain below the attainment year inventories through 2025. In addition, for the reasons set forth below, EPA believes that the state's submission, in conjunction with additional supporting information, further demonstrates that the area will continue to maintain the $PM_{2.5}$ standard at least through 2026. Thus, if EPA finalizes its proposed approval of the redesignation request and maintenance plan in 2016, it will be based on a showing, in accordance with section 175A, that the state's maintenance plan provides for maintenance for at least ten years after redesignation.

Indiana's plan demonstrates maintenance of the 1997 annual $PM_{2.5}$ NAAQS through 2025 by showing that current and future emissions of NO_X, directly emitted $PM_{2.5}$ and SO_2 for the area

remain at or below attainment year emission levels.

The rate of decline in emissions of $PM_{2.5}$, NO_x, and SO_2 from the attainment year 2008 through 2025 (calculated from Table 2) indicates that emissions inventory levels not only significantly decline between 2008 and 2025, but that the reductions will continue in 2026 and beyond. The average annual rate of decline is 4,472 tons per year (tpy) for SO_2, 1,052 tpy of NO_X, and 8.73 tpy of direct PM for the Indiana portion of the Louisville area, and average annual rate of decline is 4,436 tpy for SO_2, 2,239 tpy of NO_X, and 98.1 tpy of direct PM for the entire Louisville area. These rates of decline are consistent with monitored and projected air quality trends, emissions reductions achieved through emissions controls and regulations that will remain in place beyond 2026 and through fleet turnover that will continue beyond 2026, among other factors. We are proposing to find the mobile source contribution to these emissions is expected to remain insignificant in 2026 and beyond because of fleet turnover in upcoming years that will result in cleaner vehicles and cleaner fuels.

A maintenance demonstration need not be based on modeling. *See Wall v. EPA*, 265 F.3d 426 (6th Cir. 2001), *Sierra Club v. EPA*, 375 F. 3d 537 (7th Cir. 2004). *See also* 66 FR 53094, 53099-53100 (October 19, 2001), 68 FR 25413, 25430-25432

(May 12, 2003), 78 FR 53272 (August 29, 2013). Indiana uses emissions inventory projections for the years 2015 and 2025 to demonstrate maintenance for the entire Louisville area. The projected emissions were estimated by Indiana, with assistance from the Lake Michigan Air Directors Consortium (LADCO) and the Kentucky Regional Planning and Development Agency (KIPDA), who used the MOVES2010a model for mobile source projections. Projection modeling of inventory emissions was done for the 2015 interim year emissions using estimates based on the 2008 and 2015 LADCO modeling inventory, using LADCO's growth factors, for all sectors. The 2025 maintenance year emission estimates were based on emissions estimates from the 2015 LADCO modeling. Table 2 shows the 2008 attainment base year emission estimates and the 2015 and 2025 emission projections for the Louisville area, taken from Indiana's June 16, 2011, submission.

Table 2. Comparison of 2008, 2015 and 2025 NO_X, direct $PM_{2.5}$ and SO_2 emission totals (tpy) for the Louisville area

	SO_2	NO_X	$PM_{2.5}$
2008(baseline)	151,503.01	97,533.93	6,724.02
2015	76,958.54	69,936.67	5,540.29
2025	76,082.07	59,455.17	5,055.61
Change 2008-2025	-75,420.94	-38,078.76	-1,668.41
	50% decrease	39% decrease	25% decrease

Table 2 shows that, for the period between 2008 and the maintenance projection for 2025, the Louisville area will reduce NO_X emissions by 38,078 tpy; direct $PM_{2.5}$ emissions by 1,668 tpy;

and SO_2 emissions by 75,420 tpy. The 2025 projected emissions levels are significantly below attainment year inventory levels, and, based on the rate of decline, it is highly improbable that any increases in these levels will occur in 2026 and beyond. Thus, the emissions inventories set forth in Table 2 show that the area will continue to maintain the annual $PM_{2.5}$ standards during the maintenance period and at least through 2026.

As Table 1 and 2 demonstrate, monitored $PM_{2.5}$ design value concentrations in the Louisville area are well below the NAAQS in the years beyond 2008, an attainment year for the area. Further, those values are trending downward as time progresses. Based on the future projections of emissions in 2025 showing significant emissions reductions in direct $PM_{2.5}$, NO_x, and SO_2, it is very unlikely that monitored $PM_{2.5}$ values in 2026 and beyond will show violations of the NAAQS. Additionally, the 2013-2015 design value of 11.7 $\mu g/m^3$ provides a sufficient margin for the 1997 standard in the unlikely event emissions rise slightly in the future.

C. CAIR and CSAPR

In its redesignation request and maintenance plan, the state identified the Clean Air Interstate Rule (CAIR) as a permanent and enforceable measure that contributed to attainment in the Louisville Area. CAIR created regional cap-and-trade

programs to reduce SO_2 and NO_X emissions in 27 eastern states, including Indiana, that contributed to downwind nonattainment or interfered with maintenance of the 1997 8-hour ozone NAAQS and the 1997 $PM_{2.5}$ NAAQS. *See* 70 FR 25162 (May 12, 2005). Indiana adopted CAIR budgets into its SIP on November 1, 2006, with emission reductions beginning in 2010 and extending into 2015. By 2007, the beginning of the attainment time period identified by Indiana, CAIR had begun achieving emission reductions in the state.

In 2008, the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) vacated CAIR, *North Carolina v. EPA,* 531 F.3d 896 (D.C. Cir. 2008); but ultimately remanded the rule to EPA without vacatur to preserve the environmental benefits provided by CAIR, *North Carolina v. EPA,* 550 F.3d 1176, 1178 (D.C. Cir. 2008). On August 8, 2011 (76 FR 48208), acting on the D.C. Circuit's remand, EPA promulgated CSAPR to replace CAIR and, thus, to address the interstate transport of emissions contributing to nonattainment and interfering with maintenance of the two air quality standards covered by CAIR as well as the 2006 $PM_{2.5}$ NAAQS. CSAPR requires substantial reductions of SO_2 and NO_X emissions from emission generating units (EGUs) in 28 states in the eastern United States. As a general matter, because CSAPR is CAIR's

replacement, emissions reductions associated with CAIR will for most areas be made permanent and enforceable through implementation of CSAPR.

Numerous parties filed petitions for review of CSAPR in the D.C. Circuit, and on August 21, 2012, the court issued its ruling, vacating and remanding CSAPR to EPA and ordering continued implementation of CAIR. *EME Homer City Generation, L.P. v. EPA*, 696 F.3d 7, 38 (D.C. Cir. 2012). The D.C. Circuit's vacatur of CSAPR was reversed by the United States Supreme Court on April 29, 2014, and the case was remanded to the D.C. Circuit to resolve remaining issues in accordance with the high court's ruling. *EPA* v. *EME Homer City Generation, L.P.*, 134 S. Ct. 1584 (2014). On remand, the D.C. Circuit affirmed CSAPR in most respects, but invalidated without vacating some of the CSAPR budgets as to a number of states. *EME Homer City Generation, L.P.* v. *EPA*, 795 F.3d 118 (D.C. Cir. 2015) (*EME Homer City II*). The Phase 2 annual and ozone season NO_X and SO_2 budgets for Indiana are not affected by the Court's decision. The litigation over CSAPR ultimately delayed implementation of that rule for three years, from January 1, 2012, when CSAPR's cap-and-trade programs were originally scheduled to replace the CAIR cap-and-trade programs, to January 1, 2015. CSAPR's Phase 2 budgets were originally promulgated to

begin on January 1, 2014, and are now scheduled to begin on January 1, 2017. CSAPR will continue to operate under the existing emissions budgets until EPA addresses the D.C. Circuit's remand. The Court's decision did not affect Indiana's CSAPR emissions budgets; therefore, CSAPR ensures that the NO_X and SO_2 emissions reductions associated with CAIR and CSPAR throughout Indiana are permanent and enforceable.[1]

In its redesignation request, Indiana noted that a number of states contributed to $PM_{2.5}$ concentrations in the Louisville area based on EPA air quality modeling. Additionally, an air quality modeling analysis conducted by IDEM demonstrates that the Louisville area would be able to attain the $PM_{2.5}$ standard even in the absence of either CAIR or CSAPR. See appendices H and I of Indiana's redesignation request found in the docket. This modeling is available in the docket for this proposed redesignation action.

To the extent that Louisville relies on CSAPR for maintenance of the standard, EPA has identified the Louisville area as having been significantly impacted by pollution transported from other states in both CAIR and CSAPR, and these rules greatly reduced the tons of SO_2 and NO_X emissions generated

1 CAIR and CSAPR established annual NOx and SO_2 budgets to address nonattainment and interference with maintenance of the $PM_{2.5}$ standard because, as discussed above in Section II, NOx and SO_2 are two primary $PM_{2.5}$ precursors.

in the states upwind of the area. The air quality modeling performed for the CSAPR rulemaking identified the following states as having contributed to $PM_{2.5}$ concentrations in the Louisville area: Illinois, Indiana, Kentucky, Michigan, Missouri, Ohio, Pennsylvania, Tennessee, West Virginia and Wisconsin. *See* 76 FR 48208(August 8, 2011). Even though the first phase of CAIR implementation for SO_2 did not begin until 2010, many sources began reducing their emissions well in advance of the first compliance deadline because of the incentives offered by CAIR for early compliance with the rule. The emission reductions in the states upwind of the Louisville area achieved by CAIR, and made permanent by CSAPR, are unaffected by the D.C. Circuit's remand of CSAPR.[2]

III. Summary of Proposed Actions

EPA is issuing a supplement to its action, published July 11, 2013, which proposed to redesignate the Indiana portion of the Louisville area to attainment for the 1997 annual $PM_{2.5}$ NAAQS, to approve the associated maintenance plan, and to approve the state's emission inventory. EPA is concluding that the most current three year design values show that the area is

2 The D.C. Circuit in *EME Homer City II* remanded the SO2 trading program budgets for four states, none of which were identified as contributing to the Louisville area. Moreover, updated air quality modeling performed for the CSAPR identified that the Louisville area can attain and maintain the 1997 $PM_{2.5}$ NAAQS and no modeled issues for the 2012 NAAQS 76 FR 48207, 48241 (August 8, 2011) and Page memo, March 17, 2016.

attaining the standard and preliminary values show the area continues to attain the 1997 annual $PM_{2.5}$ NAAQS. EPA also determined that the projections used in the states submittal meet the requirements of the maintenance plan out-year emission projections. EPA concluded that the CSAPR remanded budgets did not affect the area's ability to attain through permanent and enforceable measures and will not affect the area's ability to maintain the standard. EPA is seeking comment only on the issues raised in this supplemental proposal, and is not re-opening comment on other issues addressed in its prior proposal.

IV. Statutory and Executive Order Reviews

Under the CAA, redesignation of an area to attainment and the accompanying approval of a maintenance plan under section 107(d)(3)(E) are actions that affect the status of a geographical area and do not impose any additional regulatory requirements on sources beyond those imposed by state law. A redesignation to attainment does not in and of itself create any new requirements, but rather results in the applicability of requirements contained in the CAA for areas that have been redesignated to attainment. Moreover, the Administrator is required to approve a SIP submission that complies with the provisions of the CAA and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP

submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, these proposed actions do not impose additional requirements beyond those imposed by state law and the CAA. For that reason, these proposed actions:

- Are not "significant regulatory actions" subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Do not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Are certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Do not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Do not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);

- Are not economically significant regulatory actions based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Are not significant regulatory actions subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Are not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- Do not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, this proposed rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because a determination of attainment is an action that affects the status of a geographical area and does not impose any new regulatory requirements on tribes, impact any existing sources of air pollution on tribal lands, nor impair the maintenance of ozone national ambient air quality standards in tribal lands.

List of Subjects

40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Particulate matter.

40 CFR Part 81

Environmental protection, Air pollution control, National parks, Wilderness areas.

Dated: June 1, 2016.

Robert A. Kaplan,
Acting Regional Administrator, Region 5.

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