



ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R07-OAR-2014-0448; FRL-9914-27-Region 7]

Approval and Promulgation of Implementation Plans; State of Missouri; 2013 Missouri State Implementation Plan for the 2008 Lead Standard

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) proposes to grant full approval of Missouri's attainment demonstration State Implementation Plan (SIP) for the lead National Ambient Air Quality Standard (NAAQS) nonattainment area of Herculaneum, Missouri submitted on April 18, 2013. The applicable standard addressed in this action is the lead NAAQS promulgated by EPA in 2008. EPA believes that the SIP submitted by the state satisfies the applicable requirements of the Clean Air Act (CAA) identified in EPA's 2008 Final Rule and will bring the area into attainment of the 0.15 microgram per cubic meter ($\mu\text{g}/\text{m}^3$) lead NAAQS in the Herculaneum, Missouri area.

In this action, EPA also proposes approval of a revision to the Missouri SIP related to the 2007 Consent Judgment which was previously approved into the Missouri SIP as part of an

attainment demonstration for the 1978 lead NAAQS. This revision was submitted to EPA on November 21, 2011.

DATES: Comments must be received on or before [insert date 30 days after publication in the **Federal Register**].

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R07-OAR-2014-0448, by one of the following methods:

1. www.regulations.gov: Follow the on-line instructions for submitting comments.
2. Email: hertzwu.sara@epa.gov.
3. Mail, Hand Delivery or Courier: Sara Hertz Wu, Environmental Protection Agency, Air Planning and Development Branch, 11201 Renner Boulevard, Lenexa, Kansas 66219.

Instructions: Direct your comments to Docket ID No. EPA-R07-OAR-2014-0448. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at www.regulations.gov, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through www.regulations.gov or email. The www.regulations.gov website is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment.

If you send an email comment directly to EPA without going through www.regulations.gov, your email address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket. All documents in the electronic docket are listed in the www.regulations.gov index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in www.regulations.gov or in hard copy at the Environmental Protection Agency, Air Planning and Development Branch, 11201 Renner Boulevard, Lenexa, Kansas. EPA requests that you contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section to schedule your inspection. The interested persons wanting to examine these documents should

make an appointment with the office at least 24 hours in advance.

FOR FURTHER INFORMATION CONTACT: Sara Hertz Wu at (913) 551-7316, or email her at hertzwu.sara@epa.gov.

SUPPLEMENTARY INFORMATION: Throughout this document "we," "us," or "our" refer to EPA.

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I. What is Being Addressed in this Document?

In this document, EPA is addressing Missouri's attainment demonstration SIP for the lead NAAQS nonattainment area of Herculaneum, Missouri. The applicable standard addressed in this

action is the lead NAAQS promulgated by EPA in 2008. EPA believes that the SIP submitted by the state satisfies the applicable requirements of the CAA identified in EPA's Final Rule (73 FR 66964, October 15, 2008), and demonstrates attainment of the 0.15 microgram per cubic meter ($\mu\text{g}/\text{m}^3$) lead NAAQS in the Herculaneum, Missouri area.

In this document, EPA is also addressing a revision to the Missouri SIP related to the 2007 Consent Judgment which was previously approved in the Missouri SIP as part of an attainment demonstration for the 1978 lead NAAQS (77 FR 9529, February 17, 2012).

II. Have the Requirements for the Approval of a SIP Revision Been Met?

The state submission has met the public notice requirements for SIP submissions in accordance with 40 CFR 51.102. The submission also satisfied the completeness criteria of 40 CFR part 51, appendix V. In addition, the revision meets the substantive SIP requirements of the CAA, including section 110 and implementing regulations.

III. What Action is EPA Taking?

EPA is proposing to grant full approval of Missouri's attainment demonstration SIP for the 2008 lead NAAQS. We are also proposing to approve a revision to the Missouri SIP related to the 1978 lead NAAQS. We are processing this as a proposed

action because we are soliciting comments on this proposed action. Final rulemaking will occur after consideration of any comments.

IV. Background

EPA established the NAAQS for lead on October 5, 1978 (43 FR 46246). The 1978 NAAQS for lead is set at a level of 1.5 ug/m³ of air, averaged over a calendar quarter. The Herculaneum, Missouri area is designated nonattainment for the 1978 lead NAAQS. EPA's most recent approved revision to Missouri's State Implementation Plan to address the 1978 lead NAAQS was on February 7, 2012 (77 FR 9529).¹

On October 15, 2008, EPA established a new lead NAAQS of 0.15 ug/m³ of air, measured as a rolling three-month average. (73 FR 66964). On November 22, 2010, EPA designated the City of Herculaneum as nonattainment for the 2008 lead NAAQS. (75 FR 71033).² Under Section 191(a) of the CAA, Missouri is required to submit to EPA an attainment demonstration SIP revision for lead and to demonstrate the nonattainment area will reach attainment of the 2008 lead NAAQS no later than five years from the date of the nonattainment area designation.

¹ A complete history of EPA's approval of numerous Missouri SIPs addressing the 1978 lead NAAQS can be found at 75 FR 52701.

² EPA also designated portions of Iron, Dent, and Reynolds Counties as nonattainment for the 2008 lead NAAQS. 75 FR 71033. Those nonattainment areas will be addressed in a separate action.

This rulemaking proposes approval of Missouri's SIP to bring the Herculaneum area into attainment for the 2008 lead NAAQS. This rulemaking also proposes approval of an amendment to the 2007 Consent Judgment previously approved in Missouri's SIP related to the 1978 lead NAAQS.

V. Technical Review of the Attainment Demonstration SIP for the 2008 Lead NAAQS

A. Facility Description

The Doe Run-Herculaneum facility opened in 1892 and, at the time of the nonattainment designation, was the only primary lead smelter operating in the United States. The primary lead smelting process begins with lead concentrate. Doe Run-owned mining and milling operations located in southeastern Missouri are the primary source of Doe Run-Herculaneum's lead ore and lead concentrate. Lead concentrate, typically 45 percent to 50 percent lead by weight, is mined from underground ore deposits. The ore which contains about six percent lead by weight, is crushed and then processed into lead concentrate at the mills. Lead concentrate contains approximately 75 percent lead by weight. Lead concentrate was previously transported from the mines/mills to the Herculaneum smelter by rail, but since 2002 has been transported exclusively by truck to Herculaneum. Once delivered to the Herculaneum primary lead smelter, the process

of smelting the lead concentrate into high purity lead can be divided into three main steps: sintering, reducing (smelting), and refining.

The Doe Run smelter was limited to the production of 130,000 tons of refined lead per year based on a 12-month rolling average period pursuant to the terms of a Consent Decree applicable to the Herculaneum Facility entered into by Doe Run, Missouri, and EPA in the United States District Court in the Eastern District of Missouri, Case No. 4:10-cv-01895-JCH on December 21, 2011 (2011 Consent Decree).

On December 31, 2013, pursuant to the terms of the 2011 Consent Decree, Doe Run permanently ceased operations of the sintering plant. On April 30, 2014, the 2011 Consent Decree also required Doe Run to permanently cease smelting operations and retire the blast furnaces; however, Doe Run ceased operation of the blast furnaces on December 31, 2013, concurrently with the cessation of operation of the sintering plant. The only active lead-processing units that may remain after shutdown are related to refining operations in the Refinery and Strip Mill building.

The Refinery building is attached to the blast furnace building and is currently used for refining, drossing, and casting operations. The Strip Mill is a hot rolling mill used to turn cast refined lead into long, continuous strips of flat rolled lead as required by certain customers. These units are

addressed in the state's SIP control strategy and are discussed in more detail in section V.D. of this document.

In order to maintain operational flexibility at the Refinery and Strip Mill units, at Doe Run's request, Missouri has included two possible operating scenarios for Doe Run in its SIP. These scenarios are referred to as "Scenario A" and "Scenario B" and are described in more detail in this document.

On February 24, 2011, Doe Run requested a permit from Missouri to construct a pyrometallurgical technology that would have substantially reduced lead emissions than the previous smelter, sintering, and blast furnace operations. The 2007 Consent Judgment, approved as part of Missouri's SIP for the 1978 lead NAAQS, prohibited construction of new lead emitting processes within the Doe Run property fenceline. Doe Run requested a revision to the 2007 Consent Judgment to allow for the construction of this new low-lead emitting process next to the existing smelter within the property fenceline. On November 14, 2011, Missouri issued the construction permit, revised the 2007 Consent Judgment for the new pyrometallurgical technology, and submitted a SIP revision to EPA on November 21, 2011. This requested revision is addressed in Section VI of this document. To date, Doe Run has not constructed this new technology.

B. Model Selection, Meteorological and Emissions Inventory Input Data

Missouri conducted air dispersion modeling to evaluate the effectiveness of the proposed control strategy. The model, AERMOD, was utilized and is EPA's preferred model for demonstrating attainment of the lead NAAQS. AERMOD estimates the combined ambient impact of sources by simulating Gaussian dispersion of emissions plumes. Emission rates, wind speed and direction, atmospheric mixing heights, terrain, plume rise from stack emissions, initial dispersion characteristics of fugitive sources, particle size and density are all factors considered by the model when estimating ambient impacts. Missouri performed two dispersion modeling analyses for the 2008 lead NAAQS for the Herculaneum area. One was an analysis of current conditions to ensure the model is performing adequately (base case). The second analysis examined the effectiveness of proposed emission controls (future case). The results of these analyses will be discussed in more detail in section V.C. of this document.

Missouri used the meteorological data from the meteorological monitoring network maintained by Doe Run pursuant to the 2007 Consent Judgment that is part of the Missouri SIP for the 1978 lead NAAQS. Doe Run collected site-specific wind speed and direction data for at least five years. Missouri selected one year of representative meteorological data for use

in the model. The upper air station at Lincoln, Illinois was used to gather upper level air data including information on the vertical temperature, moisture and wind characteristics of the atmosphere. This data set provided confidence that the controls selected for the attainment demonstration will be effective over a large variety of meteorological conditions. The meteorological data were run through AERMOD's pre-processors to make the data usable by the model.

As required by Section 172(c)(3) of the CAA, a revised emission inventory was developed for this nonattainment area. The geographic boundary of the nonattainment area is the city of Herculaneum, located in Jefferson County, Missouri. The emission inventory data are specifically for lead emissions. While lead particulate may be estimated as a portion of PM₁₀ emissions, only lead emissions are presented in the inventory. A single point source (Doe Run) drives the lead inventory for the nonattainment area, but other sources, such as non-point and mobile sources were described in the emissions inventory for completeness. Doe Run, as a Title V (Part 70) source is required to submit its emissions inventory annually. Therefore, the emissions inventory includes the 2011 inventory which was the most recent inventory available for the facility at the time of the development of the state's plan. Nonpoint and mobile source emissions are from the

2008 National Emissions Inventory (NEI), a dataset prepared triennially through state, tribal and EPA cooperation.

The 2011 lead emission totals for Doe Run Herculaneum are 21.11 tons per year. There are no other point sources in the Herculaneum nonattainment area that have reported lead emissions to Missouri. The 2008 NEI for nonpoint and mobile source emissions show that these sources combined comprise approximately 0.15 percent of point source emissions total and therefore were not included in the modeling exercise as discreet sources. Emissions from nonpoint and mobile sources are included in the background concentration.

In accordance with 40 CFR Part 51, appendix W, background concentrations must be considered when determining NAAQS compliance. Background concentrations are intended to include impacts attributable to natural sources, nearby sources (excluding the dominant source(s)), and unidentified sources. The calculated background concentration includes all sources of lead not already included in the model run script. The background concentration includes distant sources of lead, which may have originally derived from the plant, or reentrainment of naturally occurring lead in the atmosphere.

In general, the background value is calculated by averaging the monitored concentrations at monitor sites outside the area of immediate dominant source impact and on days when the

predominant wind direction was not blowing from the dominant source to the monitors. Missouri began with all monitored days and identified days with no measured one-hour average wind direction from the smelter. Each monitor was examined in conjunction with an acceptable wind fan and the concentrations are averaged on days with no predominant winds from the facility. The resulting concentration from all the monitors in the evaluation is the background concentration for the area.

The days selected for the calculation match the model study period. Therefore, EPA agrees that the calculated value represents the best estimate of background after all improvements from the 2007 SIP revision for the 1978 lead NAAQS (2007 SIP Revision) were implemented. Additional information can be found in the Missouri SIP, Section 4.3.

C. Modeling Analysis

1. Base Case Analysis

As discussed above, Missouri used the AERMOD dispersion model to run two analyses, the base case and the future case. The base case evaluated a reasonable estimate of maximum potential emissions to account for contributing sources based on normal facility operations. The base case model analysis used the modeling completed for the attainment demonstration for the 1978 lead NAAQS. See 73 FR 58913. Missouri, EPA, and Doe Run agreed that the modeling done in 2007 could be used if the

monitoring data verified the SIP attainment demonstration for the 1978 lead NAAQS. Missouri compared the 2007 script used for the model and the current conditions at the Herculaneum facility. Actual emissions data from the Missouri Emissions Inventory System (MOEIS), monitoring data, and information from the smelter were all reviewed and Missouri verified there were no changes to any processes or controls at the facility that would invalidate the 2007 script.

The only changes that occurred between the SIP revision for the 1978 lead NAAQS and the current year were changes to the monitoring network and the fenceline. These changes affected only the receptor grid and did not have any effect on the current facility emission points, rates or controls. Additional information regarding the model used can be found in the docket for this action.

Results from the SIP revision's attainment demonstration for the 1978 lead NAAQS predicted that, after all control measures were installed, the maximum 3-month rolling average would be 1.492 ug/m³. Missouri found that the maximum 3-month rolling average measured at the Main Street monitor was 1.160 ug/m³ in April 2009. Because the attainment demonstration modeling was done with worst case scenario emission rates, it is expected that the actual monitoring values would be somewhat less than the predicted value. The monitoring data confirm the

accuracy and reliability of the model's inputs and results. EPA agrees with Missouri's determination that a separate base case performance run was not necessary for the SIP revision for the 2008 lead NAAQS because the results would be virtually identical to those obtained in the attainment demonstration for the 1978 lead NAAQS.

2. Future Case Analysis

The future case analysis evaluated the control strategies of the SIP revision for the 1978 lead NAAQS pursuant to the existing Federally enforceable requirements that are applicable to the facility as well as the enforceable 2013 Consent Judgment between Missouri and Doe Run. See appendix O, Missouri SIP. The future case dispersion modeling is the attainment demonstration used to verify that the proposed control strategies will bring the Herculaneum Lead Nonattainment Area into compliance with the 2008 lead NAAQS.

Missouri selected January 2009 to December 2009 as the base year because all emission reduction projects required by the SIP revision for the 1978 lead NAAQS had been completed. That base year inventory utilizes the emission rates that relate to specific emission activities at the Doe Run facility. Emission points in the model reflect the release points for these emissions (for example, a stack), not the location of the process unit that emitted the pollutant. An emission rate for

each point source was obtained from the best available information.

For the stack, emissions were validated by stack test data, which measure actual lead emissions released from the stack. For other emission rates, such as fugitive emissions, sampling information was used, if available. If sampling information was not available, emission rates were calculated based on known factors such as soil lead content, best available estimates such as traffic counts, or AP-42 guidelines.³ For truck haul road emissions, truck traffic counts were used.

Based on the good engineering practice (GEP) requirements for stack heights (40 CFR 51.1(ii)), the main stack at Doe Run was modeled at 100.75 meters in the base case model run. For the attainment year demonstration, no emissions will be vented to the main stack, therefore, none of the stacks contained within the attainment year model input files exceed 65 meters. All of the proposed stacks meet the GEP stack height requirements. Additional information regarding the future case year model inputs can be found in Section 4.2 of the Missouri SIP and Appendices H-M. EPA agrees with the modeling conducted by Missouri for its future case analysis.

³ AP-42, Compilation of Air Pollutant Emission Factors, Fifth Edition, <http://www.epa.gov/ttnchie1/ap42>

D. Control Strategy

In order to bring Herculaneum back into attainment of the 2008 Lead NAAQS, Missouri developed a control strategy for Doe Run-Herculaneum. One element of the control strategy is the shutdown of the blast furnaces and sinter plant, which has already occurred and part of the Federally enforceable 2011 Consent Decree, and requires no additional action by Missouri to implement into the attainment demonstration. The significant reductions from the shutdowns are expected to be the greatest source of emission reductions for the nonattainment area. Missouri's control strategy addresses the remaining lead emissions from the Strip Mill and Refinery and fugitive lead emissions generated from sources such as trucks transporting the material into the facility using haul roads.

Despite not being able to produce refined lead from ore concentrates after the shutdown at Herculaneum, Doe Run told Missouri that it may continue to operate some processes at the Strip Mill and Refinery. Missouri worked with Doe Run to develop two potential operating scenarios, "Scenario A" and "Scenario B." To address operation under Scenarios A and B, Missouri and Doe Run-Herculaneum developed a Consent Judgment (hereinafter referred to as the 2013 Consent Judgment; found at Missouri SIP, Appendix O) as a means to establish enforceable emission and production limits, controls, operating parameters, and

contingency measures to reduce lead emissions from point, area, and fugitive lead dust sources in support of achieving attainment of the 2008 lead NAAQS as soon as practicable following the shutdown of the blast furnaces and sinter plant. The 2013 Consent Judgment was submitted as part of Missouri's attainment demonstration SIP for the 2008 lead NAAQS.

Following the shutdown of the sinter plant and blast furnace under the 2011 Consent Decree, the Strip Mill is subject to a production limit of a three-month rolling average of 3,750 tons of lead produced.

The Refinery is subject to a production limit of a three month rolling average of 21,250 tons of lead produced after the shutdown of the sinter plant and blast furnace under the 2011 Consent Decree. The process at the Refinery building, if retained, will be more appropriately re-characterized as a re-melter. The building would consist of re-melting, casting and alloy-mixing to meet end-user demand from refined lead brought to the facility from elsewhere.

Scenario A requires that unless superseded in the 2013 Consent Judgment, all applicable provisions from previous SIP revisions shall remain in effect. Therefore, operations at the current Refinery building shall continue to comply with the building ventilation/particle containment, capture and control campaign outlined in the 2007 SIP Revision and 2009 SIP

Supplement for the 1978 lead NAAQS See 73 FR 58913; 75 FR 52701; and 77 FR 9529.

Additionally, if operations at the Refinery building are retained after the 2011 Consent Decree shutdown date, the 2013 Consent Judgment provides that Baghouses #8 and #9 shall be subject to an emission limit of 3.5 lb of lead/24 hours. The shutdown under the 2011 Consent Decree eliminates Baghouse #7. The new emission limit represents a significant reduction from previous emissions.

The 2013 Consent Judgment prescribes a stack testing regimen to demonstrate compliance with the emission limits under conditions of representative production. Further, if Doe Run chooses to operate under Scenario A, the Refinery production limit of a three-month rolling average of 21,250 tons of lead produced remains in effect.

Doe Run will operate under Scenario B if it becomes cost effective to increase production at the current Refinery building. In Scenario B, all operating parameters used in Scenario A will remain in effect, except that the production limit at the Refinery will be increased to a three-month rolling average of 62,500 tons of lead produced. All the kettle heat stack emissions must be routed to Baghouse #9 with an accompanying increase in baghouse capacity. As described below, an increase in capacity at Baghouse #9 is also listed as a

contingency measure. If Doe Run chooses to operate under Scenario B, the modification to the baghouse must occur before implementation as a contingency measure and the remaining contingency measures will be triggered in a different order, as discussed in Section V.H., below and as outlined in the Missouri SIP, Section 8 and Appendix O. Baghouse #9 will be subject to an emission limit of 3.5 pounds of lead per day under Scenario B.

The 2013 Consent Judgment specifies that under either operating scenario Doe Run could shrink the current fenceline to a minimum distance outlined by the modeled attainment concentration isopleths⁴/ambient air quality boundary or "zone of public access preclusion," surrounding the remaining process building as outlined in the Missouri SIP. See section V. H. of this document. Pursuant to the 2013 Consent Judgment, Doe Run must notify Missouri of any proposed changes to the fenceline, but if the changes to the fenceline are not less than the "zone of public access preclusion," the changes do not require a formal SIP revision.

Missouri determined that allowing Doe Run the flexibility to modify or establish a new fenceline within a modeled attainment boundary will benefit the community by expediting any future redevelopment/land reuse plans.

⁴ Isopleths are lines connecting receptor points of the same value, in this case: the same maximum lead air concentration equal to the standard.

Although the main smelting operations are shutdown under the 2011 Consent Decree, Missouri expects some emissions to be generated by the trucks transporting refined lead products to and from the facility via haul roads. Doe Run continues to be subject to any terms of the previously approved SIP for the 1978 lead NAAQS standard that are not specifically superseded by the 2013 Consent Judgment, including provisions related to the control of fugitive emissions. Two of the contingency measures discussed in section V. H., below, also address fugitive emissions.

Further, under the 2013 Consent Judgment, Missouri will continue to utilize its lead monitoring site network in accordance with the 2013 Missouri Ambient Air Quality Monitoring Plan, which was approved by EPA on November 22, 2013. Doe Run will continue to collect data from all of these monitors until EPA has formally designated the Herculaneum nonattainment area as attainment for lead, until Doe Run no longer owns or operates the property, when Doe Run ceases operations of air emission units pursuant to the 2011 Consent Decree, or upon approval by Missouri that continued monitoring is not necessary.

Doe Run will also continue operation of two continuous particulate samplers located at the Broad Street monitoring site and the "City Hall" monitoring site. The 2013 Consent Judgment requires Doe Run to report quarterly to Missouri (1) any day

that exceeds a reported concentration of 0.5 ug/m³ of lead; or (2) any day that exceeds a reported concentration of 0.15 ug/m³ of lead and that falls on every sixth day national monitoring schedule. The analysis shall include a review of the continuous particulate monitoring, the daily ambient concentrations, wind speed and direction data, precipitation data, a summary of process throughputs, an identification of malfunctions, process upsets or other conditions that may be expected to contribute to ambient impact, and a summary of the analyses as described above.

Doe Run will continue to collect data from all of these monitors until EPA has formally designated the Herculaneum nonattainment area as attainment for lead, until Doe Run no longer owns or operates the property, when Doe Run ceases operations of air emission units pursuant to the 2011 Consent Decree, or upon approve by Missouri that continued monitoring is not necessary.

Doe Run has been collecting meteorological monitoring under its previously approved SIP. Following the shutdown of the sinter plant and blast furnace pursuant to the 2011 Consent Decree, Doe Run will no longer be required to collect data at the forty (40) meter station, provided a year of additional data has been collected and no future emissions units will vent to

the main stack. Doe Run will only be required to operate one ten (10) meter meteorological station, the location of which must be approved by Missouri. Meteorological monitoring will be conducted pursuant to a quality assurance project plan, which must be approved by Missouri. Doe Run will continue to conduct meteorological monitoring until EPA has formally designated the Herculaneum nonattainment area as attainment for lead, until Doe Run no longer owns or operates the property, when Doe Run ceases operations of air emission units pursuant to the 2011 Consent Decree, or upon approval by Missouri that continued monitoring is not necessary.

EPA believes that Missouri's control strategy implemented through the 2013 Consent Judgment will bring the area into attainment of the 2008 Lead NAAQS.

E. Reasonably Available Control Measures (RACM) Including Reasonably Available Control Technology (RACT) and Reasonable Further Progress (RFP)

Section 172(c)(1) of the CAA requires nonattainment areas to implement all RACM, including emissions reductions through the adoption of RACT, as expeditiously as practicable. EPA interprets this as requiring all nonattainment areas to consider all available controls and to implement all measures that are determined to be reasonably available, except that measures which will not assist the area to more expeditiously attain the

standard are not required to be implemented.⁵ In March 2012, EPA issued guidance titled, "Implementation of Reasonably Available Control Measures (RACM) for Controlling Lead Emissions" (RACM Guidance).⁶

Section 172(c)(2) of the CAA requires areas designated as nonattainment for criteria pollutants to include a demonstration of Reasonable Further Progress (RFP) in attainment demonstrations. Section 171(1) of the CAA defines RFP as annual incremental reductions in emissions of the relevant air pollutants as required by Part D, or emission reductions that may reasonably be required by EPA to ensure attainment of the applicable NAAQS by the applicable date. Part D does not include specific RFP requirements for lead.

Missouri performed a RACM analysis in compliance with the RACM Guidance. As stated in the final lead NAAQS rule, RFP is satisfied by the strict adherence to a compliance schedule which is expected to periodically yield significant emission reductions. Missouri has determined that the shutdown of the sinter plant by December 31, 2013, and the blast furnace by April 30, 2014, addresses both RACM and RFP based on the significant decrease in emissions that will result from these shutdowns. In addition, Scenarios A and B, which include

⁵ See 58 FR 67751, Dec. 22 1993, for a discussion of this interpretation as it relates to lead.

⁶ <http://www.epa.gov/oar/lead/pdfs/2012ImplementationGuide.pdf>

production limits, emission limits for the remaining processes, and an optional scenario of re-routing kettle heat stacks to a baghouse will further reduce the potential emissions from the facility. Scenarios A and B have been modeled and meet the lead NAAQS and also comply with RACM and RFP.

The shutdown of the sinter and blast furnace are discrete control measures that have already occurred. All known significant sources of lead emissions have been eliminated, controlled, or ruled out as being ineffective or not viable, consistent with EPA's RACT Guidance.

The control strategy is not staggered or phased, therefore, ambient air quality concentrations are expected to drop at or below attainment levels immediately after implementation of the control strategy. RFP is addressed by the control strategy occurring in a timeframe consistent with the CAA and the 2011 Consent Decree. Further, as a result of the shutdown of the sintering plant and blast furnace, all of the nonattainment area's ambient air quality monitors are reporting Pb concentrations below the 2008 lead NAAQS for the three-month rolling average for January through March 2014. See <http://www.dnr.mo.gov/env/apcp/docs/leadmonitordata.pdf>.

EPA proposes to approve Missouri's SIP as meeting sections 172(c)(1) and (c)(2) of the CAA.

F. Attainment Demonstration

CAA Section 172 requires a state to submit a plan for each of its nonattainment areas that demonstrates attainment of the applicable ambient air quality standard as expeditiously as practicable, but no later than the specified attainment date. This demonstration should consist of four parts: (1) technical analyses that locate, identify, and quantify sources of emissions that are contributing to violations of the lead NAAQS; (2) analyses of future year emissions reductions and air quality improvement resulting from already-adopted national, state, and local programs and from potential new state and local measures to meet the RACT, RACM, and RFP requirements in the area; (3) adopted emissions reduction measures with schedules for implementation and (4) contingency measures required under section 172(c)(9) of the CAA.

The requirements for the first two parts are described in the sections on emissions inventories and RACM/RACT, above and in the sections on air quality modeling and the attainment demonstration that follows immediately below. Requirements for the third and fourth parts are described in the sections on the control strategy and the contingency measures, respectively.

As stated in section V. C. 2, above the future case dispersion modeling is the attainment demonstration used to verify that the proposed control strategies will bring the area

into attainment. In order to determine whether the planned emission reduction strategies will result in attainment of the NAAQS, the modeled maximum lead air concentration (based on a rolling three-month average) is added to the calculated background lead concentration of 0.032 ug/m^3 for each scenario. See section V.B. The sum is the predicted maximum three-month rolling average lead air concentration.

During the attainment model run, with receptors spaced 50-meters apart at the current fenceline, Scenario A (as described in section V. D.) resulted in a modeled maximum three-month rolling average lead concentration of 0.117 ug/m^3 . Scenario B (as described in section V. D.) modeled a maximum three-month rolling average lead concentration of 0.098 ug/m^3 .

The model successfully demonstrates attainment of the 2008 Lead NAAQS (0.15 ug/m^3) for both operating scenarios based on the implementation of the required control measures as described above. The differences between the attainment year and base year emissions rates are based on changes to the plant operations and what operations will remain in the future. All of the process points associated with the sintering and blast furnaces will be removed. Fugitive emissions from these buildings will be greatly reduced by the removal of these processes. Several haul roads were eliminated and re-routed due to the changes.

The haul roads will no longer go through the old city center, but enter from the south over a new bridge on Joachim Creek. In addition, the remaining emission points and rates for the Strip Mill, Refinery and Kettle Heat Stacks will be changed to reflect the emission and production limits at the facility for both scenarios, as well as the elimination of the kettle heat stack stream in modeled Scenario B.

In response to public comment, Missouri refined the same attainment model run by placing receptors inside the current fenceline at 10-meter spacing to determine the modeled attainment concentration isopleths and to establish new non-ambient zones for both scenarios. When conducting this refined modeling, the non-ambient zone for Scenario A includes the entire non-ambient zone for Scenario B and is slightly larger. Therefore, the non-ambient zone for Scenario A established the attainment boundary/zone of public access preclusion at the Strip Mill and Refinery buildings. These minimum distances are enforceable through the 2013 Consent Judgment.

The modeling results demonstrate a margin of safety through conservative background model input assumptions. See Missouri SIP, section 6, appendices H-M, O.

EPA conducted an independent review of Missouri's modeling and proposes to approve Missouri's SIP as meeting section 172 of the CAA.

G. New Source Review (NSR)

Within the CAA, Part D of Title I requires SIP submittals to include a permit program for the construction and operation of new and modified major stationary sources. The current definition of nonattainment areas in Missouri, which for lead includes the city of Herculaneum, Missouri, is provided in Missouri rule 10 CSR 10-6.020. For installations in a nonattainment area, Missouri rule 10 CSR 10-6.060 requires a permit for construction of, or major modification to, an installation with potential to annually emit one hundred (100) tons or more of a nonattainment pollutant, or a permit for a modification at a major source with potential to annually emit one thousand two hundred (1,200) pounds of lead. Both rules have previously been approved by EPA as part of the SIP, as meeting the requirements of section 173 of the CAA, and EPA implementing rules at 40 CFR 51.165. See 78 FR 19602; 78 FR 37457.

H. Contingency Measures

As required by CAA section 172(c)(9), the SIP submittal includes contingency measures to be implemented if EPA determines that the area has failed to make reasonable further progress or if the area fails to attain the NAAQS by December 2015. If the air quality data for any three-month rolling period after the implementation of the production and emission limits

identified in the 2013 Consent Judgment exceeds the 0.15 ug/m³ three-month rolling average lead standard, Doe Run shall implement the contingency measures set forth in the 2013 Consent Judgment. Missouri may also require implementation of contingency measures if Doe Run fails to implement the control strategy projects in accordance with the 2013 Consent Judgment.

The 2013 Consent Judgment contains the following contingency measures: Project 1: Increased in-plant road cleaning; Project 2: Fugitive Emission Reduction Study; Project 3: Route emissions from Refinery kettle heat stacks to Baghouse #9; Project 4: Route Baghouse #9 emissions to the main stack; Project 5: Additional filtered ventilation to the Strip Mill building.

The contingency measures will be completed on an as-needed basis in the order listed. For example, Project 1 would be implemented after notification from Missouri of a first NAAQS violation that is monitored for three calendar months after the implementation of the control measures identified in the 2013 Consent Judgment. Project 2 would be implemented after notification from Missouri of a violation that is monitored three rolling calendar months after the completion of the first contingency project in the time frame set forth for that project. Project 3 would be implemented after notification from Missouri of a violation that is monitored three rolling calendar

months after the completion of the second contingency project in the time frame set forth for that project. Project 3 is the same as the control measure for Scenario B so if this project is implemented as a control measure, Project 4 would be triggered in its place. Project 3 would be implemented after notification from Missouri of a violation that is monitored three rolling calendar months after the completion of the third contingency project in the time frame set forth for that project. Project 5 would be implemented after notification from Missouri of a violation that is monitored three rolling calendar months after the completion of the fourth contingency project in the time frame set forth for that project. The 2013 Consent Judgment contains a procedure for submitting additional new contingency measures when they are completed.

Additional information, including emissions reductions expected from the proposed contingency measures, can be found in the Missouri SIP, Section 8.

Doe Run must notify Missouri within ten days of completion of any contingency measure. Sixty days after completion, Doe Run will propose an additional qualified contingency measures to be added to the 2013 Consent Judgment, which will become part of the 2013 Consent Judgment and fully enforceable upon approval by Missouri. These additional contingency measures will also be subject to EPA approval as part of the SIP. Doe Run may also

substitute new control(s) for the identified contingency measure(s) if Doe Run identifies and demonstrates to Missouri and EPA's satisfaction that the alternative control measure(s) would achieve attainment with the 2008 Lead NAAQS. The 2013 Consent Judgment also allows Doe Run to change the order of implementation for contingency measures and time frames for completion upon approval by Missouri.

Changes to contingency measures would require a public hearing at the state level and EPA approval as a formal SIP revision. Until such time as EPA approves any substitute measure, the measures included in the approved SIP will be the enforceable measure. EPA does not intend to approve any substitutions that cannot be implemented in the same timeframe as the original measure. These measures will help ensure compliance with the 2008 Lead NAAQS as well as meet the requirements of Section 172(c)(9) of the CAA.

EPA proposes to approve Missouri's SIP as meeting section 172(c)(9) of the CAA.

I. Enforceability

As specified in section 172(c)(6) and section 110(a)(2)(A) of the CAA, and 57 FR 13556, all measures and other elements in the SIP must be enforceable by the state and EPA. The enforceable document included in Missouri's SIP submittal is the 2013 Consent Judgment. The 2013 Consent Judgment contains all

control and contingency measures with enforceable dates for implementation. The only exception relates to the Federally enforceable dates found in the 2011 Consent Decree. The 2013 Consent Judgment also includes monitoring, recordkeeping, and reporting requirements to ensure that the control and contingency measures are met. The state adopted the 2013 Consent Judgment into Missouri's state regulations on June 19, 2013, making it state-enforceable. Upon EPA approval of the SIP submission, the 2013 Consent Judgment will become state and Federally enforceable, and enforceable by citizens under section 304 of the CAA.

We note that the 2013 Consent Judgment also contains provisions for stipulated penalties should Doe Run fail to comply with provisions of the 2013 Consent Judgment. The 2011 Consent Decree also contains stipulated penalty provisions. EPA is not bound by the state's 2013 Consent Judgment penalties, and would enforce against violations of this document under section 113 of the CAA or other Federal authorities, rather than the 2013 Consent Judgment, if EPA approves the 2013 Consent Judgment, as proposed today, into the SIP.

EPA proposes to approve Missouri's SIP as meeting sections 172(c)(6) and 110(a)(2)(A) of the CAA, and 57 FR 13556.

VI. Review of Submittal Related to the 1978 Lead NAAQS

On November 21, 2011, Missouri submitted a SIP revision related to a Consent Judgment that was previously approved by EPA as part of Missouri's SIP for the 1978 lead NAAQS. (77 FR 9529). The Missouri SIP related to the 1978 lead NAAQS, which includes the 2007 Consent Judgment, currently prohibits construction of new lead emission processes within the Doe Run property fenceline. Missouri is requesting that EPA approve a revision to that 2007 Consent Judgment. In order to allow Doe Run to construct a new low-lead emitting technology at the site, the 2007 Consent Judgment must be revised.

Missouri has submitted for approval a revision to Section 2.B.1. of the 2007 Consent Judgment to state that Doe Run shall not relocate any existing pyrometallurgical lead smelting, sintering, or blast furnace operations or construct any new pyrometallurgical lead smelting, sintering, or blast furnace operations in the fenceline. The other provisions of the 2007 Consent Judgment would remain in effect unless superseded by the 2013 Consent Judgment. Missouri has appropriately modeled all potential operating scenarios for compliance with the 1978 and 2008 lead NAAQS. This revision to the 2007 Consent Judgment does not impact the modeling analyses to show attainment of the 1978 or 2008 lead NAAQS.

The 2007 Consent Judgment was previously approved in Missouri's SIP. The revision to the 2007 Consent Judgment, if approved by EPA, will be Federally enforceable under section 172(c)(6) and section 110(a)(2)(A) of the CAA.

The revision meets the requirements of section 110 of the CAA, therefore, EPA proposes to approve this revision of the Missouri SIP.

VII. Proposed Action

EPA is proposing to grant full approval of Missouri's attainment demonstration SIP for the 2008 Lead National Ambient NAAQS nonattainment area of Herculaneum, Missouri. EPA believes that the SIP submitted by the state satisfies the applicable requirements of the CAA identified in EPA's Final Rule (73 FR 66964 October 15, 2008), and will result in attainment of the 0.15 ug/m³ lead NAAQS in the Herculaneum, Missouri area. In this action, EPA also proposes to approve a revision to the Missouri SIP related to the 2007 Consent Judgment which was previously approved into the Missouri SIP as part of an attainment demonstration for the 1978 lead NAAQS (77 FR 9529).

VIII. Statutory and Executive Order Reviews

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is not a "significant regulatory action" and therefore is not subject to review under Executive Orders 12866 and 13563 (76 FR 3821, January 21, 2011). This action is also

not subject to Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355, May 22, 2001). This action merely approves state law as meeting Federal requirements and imposes no additional requirements beyond those imposed by state law. Accordingly, the Administrator certifies that this rule will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). Because this rule approves pre-existing requirements under state law and does not impose any additional enforceable duty beyond that required by state law, it does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4).

This rule also does not have tribal implications because it will not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes, as specified by Executive Order 13175 (65 FR 67249, November 9, 2000). This action also does not have Federalism implications because it does not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and

responsibilities among the various levels of government, as specified in Executive Order 13132 (64 FR 43255, August 10, 1999). Thus Executive Order 13132 does not apply to this action. This action merely approves a state rule implementing a Federal standard, and does not alter the relationship or the distribution of power and responsibilities established in the CAA. This rule also is not subject to Executive Order 13045, "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997) because it approves a state rule implementing a Federal standard.

In reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. In this context, in the absence of a prior existing requirement for the State to use voluntary consensus standards (VCS), EPA has no authority to disapprove a state submission for failure to use VCS. It would thus be inconsistent with applicable law for EPA when it reviews a state submission, to use VCS in place of a state submission that otherwise satisfies the provisions of the CAA. Thus, the requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply. This action does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). Burden is defined at 5 CFR 1320.3(b).

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**.

A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by [insert date 60 days after date of publication in the **Federal Register**]. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. Parties with objections to this direct final rule are encouraged to file a comment in response to the parallel notice of proposed

rulemaking for this action published in the proposed rules section of today's **Federal Register**, rather than file an immediate petition for judicial review of this direct final rule, so that EPA can withdraw this direct final rule and address the comment in the final rulemaking. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2)).

List of Subjects

40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Dated: July 14, 2014.

Karl Brooks,
Regional Administrator,
Region 7.

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