



**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 52**

**[EPA-R05-OAR-2024-0549; FRL-12784-01-R5]**

**Air Plan Approval; Ohio; Carmeuse Lime, Inc. SO<sub>2</sub>**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing to approve the addition of Director's Final Findings and Orders (DFFOs) issued by the Ohio Environmental Protection Agency (Ohio EPA) to Carmeuse Lime, Inc. into the Ohio State Implementation Plan (SIP) for the 2010 sulfur dioxide (SO<sub>2</sub>) National Ambient Air Quality Standards (NAAQS). The DFFOs establish a new emissions limit for SO<sub>2</sub> emissions from the combined lime kiln stack that receives and emits SO<sub>2</sub> emissions from two rotary lime kilns at the Carmeuse Lime Maple Grove Facility in Seneca County, Ohio.

**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-2024-0549 at <https://www.regulations.gov>, or via email to [arra.sarah@epa.gov](mailto:arra.sarah@epa.gov). For comments submitted at [Regulations.gov](https://www.regulations.gov), follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from the docket. EPA may publish any comment received to its public docket. Do not submit to EPA's docket at <https://www.regulations.gov> any information you consider to be

Confidential Business Information (CBI), Proprietary Business Information (PBI), or other information the disclosure of which 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, PBI, or multimedia submissions, and general guidance on making effective comments, please visit <https://www.epa.gov/dockets/commenting-epa-dockets>.

**FOR FURTHER INFORMATION CONTACT:** Cecilia Magos, Air and Radiation Division (AR18J), Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, (312) 886-7336, [magos.cecilia@epa.gov](mailto:magos.cecilia@epa.gov). The EPA Region 5 office is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding Federal holidays.

**SUPPLEMENTARY INFORMATION:** Throughout this document whenever "we," "us," or "our" is used, we mean EPA.

## **I. Background**

On August 21, 2015 (80 FR 51052), EPA finalized the Data Requirements Rule (DRR) which required State air agencies to characterize ambient SO<sub>2</sub> levels in areas with large sources of

SO<sub>2</sub> emissions to help implement the 2010 SO<sub>2</sub> NAAQS. Under the DRR, State air agencies must at a minimum, model or monitor air quality around sources that emit 2,000 tons per year (tpy) or more of SO<sub>2</sub>, and that are not located in an area already designated nonattainment. An air agency could have avoided this requirement for a source emitting more than 2,000 tpy by adopting federally enforceable emission limits by January 13, 2017, that ensured the source would emit less than 2,000 tpy of SO<sub>2</sub>. The DRR required State air agencies to notify EPA of their selected approach for characterizing air quality around SO<sub>2</sub> sources subject to the DRR by July 1, 2016.

On January 13, 2017, Ohio EPA submitted a list of applicable sources with SO<sub>2</sub> emissions of 2,000 tpy or more, subject to the DRR pursuant to 40 CFR 51.1203.<sup>1</sup> The list of sources included Carmeuse Lime Maple Grove, Inc. (referred to as Carmeuse Lime) (Ohio EPA Facility ID #0374000010) in Seneca County, Ohio. On January 9, 2018 (83 FR 1098), EPA designated Seneca County as unclassifiable/attainment under the 2010 SO<sub>2</sub> NAAQS Round 3 designations process and required the identified sources to adopt DRR requirements by July 1.

Under the DRR (40 CFR 51.1205), for any area where modeling of actual SO<sub>2</sub> emissions served as a basis for designating such area as attainment for the 2010 SO<sub>2</sub> NAAQS, the State air agency shall submit to EPA an annual ambient SO<sub>2</sub> emissions report of

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<sup>1</sup> Ohio EPA's "State of Ohio 2010 Revised Sulfur Dioxide National Ambient Air Quality Standard Recommended Area Designations Round 3" can be found at <https://www.epa.gov/system/files/documents/2025-04/recommendation-round-3-ohio.pdf>.

applicable sources by July 1 of each year, including an assessment of the cause of any emission increases from the previous year and a recommendation regarding the need for additional dispersion modeling to determine if an area is still meeting the 2010 SO<sub>2</sub> NAAQS.

After analyzing data from Ohio's 2023 Annual SO<sub>2</sub> Emissions Review, Ohio EPA determined that new emission limits at Carmeuse Lime were needed to ensure that air quality standards are protected. On August 31, 2023, in preparation for Ohio's 2024 Annual SO<sub>2</sub> Emissions Review, as recommended by Ohio EPA, new modeling using data from the 2020-2022 period for the Carmeuse Lime facility, showed a maximum modeled 3-year DV of 211.003 µg/m<sup>3</sup>, representing a modeled violation of the 2010 SO<sub>2</sub> NAAQS value of 196.4 µg/m<sup>3</sup>. The updated modeling included WIN Waste Innovations of Seneca County at maximum permitted emission rates. In response to the modeled violation, Ohio EPA conducted new modeling based on allowables, using a critical emission rate of 1,350.00 pounds per hour (lbs/hr) from the combined lime kiln stack at the Carmeuse Lime facility that would model compliance with the 2010 SO<sub>2</sub> NAAQS. This updated dispersion modeling showed a maximum modeled 3-year DV for SO<sub>2</sub> of 192.2 µg/m<sup>3</sup>. In accordance with EPA's April 2014 "Guidance for 1-Hour SO<sub>2</sub> Nonattainment Area SIP Submissions" (April 2014 SO<sub>2</sub> Guidance)<sup>2</sup> and 40 CFR 63.10021, Equation 9, Ohio EPA determined the

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<sup>2</sup> EPA's "Guidance for 1-Hour Sulfur Dioxide (SO<sub>2</sub>) Nonattainment Area State Implementation Plans (SIP) Submissions" can be found at <https://www.epa.gov/so2-pollution/guidance-1-hour-sulfur-dioxide-so2-nonattainment-area-state-implementation-plans-sip>.

allowable emission rate for SO<sub>2</sub> from the combined lime kiln stack at Carmeuse Lime, resulting in an allowable emission rate of 1,170.0 lbs/hr as a 30-day rolling average.

On November 13, 2024, Ohio EPA submitted a request to incorporate into the Ohio SIP for the 2010 SO<sub>2</sub> NAAQS the DFFOs issued by Ohio EPA to Carmeuse Lime, establishing a new allowable 30-day rolling average SO<sub>2</sub> emissions limit of 1,170.0 lbs/hr for the combined lime kiln stack shared by two rotary lime kilns. EPA proposes to determine that the adoption of the revised enforceable emission limit (alternatively "the revised DFFOs") will ensure continued attainment of the 2010 SO<sub>2</sub> NAAQS.

## **II. Analysis of Ohio EPA's Request**

Ohio EPA's November 13, 2024, SIP submittal requests to incorporate a new limit for Carmeuse Lime into the Ohio SIP through Ohio's DFFOs process and in accordance with the Data Requirements Rule at 40 CFR 51.1205. Ohio EPA is acting under Clean Air Act (CAA) section 110(a)(2)(B) and section 110(a)(2)(K) authorities that provide for the appropriate operation to monitor, compile, and analyze ambient air quality data and modeling for a pollutant with an established NAAQS. Ohio EPA is also acting under CAA section 116, to adopt the DFFOs into the Ohio SIP, if the State elects to do so. Ohio EPA followed EPA's April 2014 SO<sub>2</sub> Guidance to calculate the new limit issued to Carmeuse Lime that would provide for attainment of the 2010 SO<sub>2</sub> NAAQS. EPA's April 2014 SO<sub>2</sub> Guidance is intended to provide guidance and recommendations to States to consider as

they develop information used in future actions, which may involve SIPs, for the 2010 SO<sub>2</sub> NAAQS nonattainment areas. EPA finds the application of this guidance for the purpose of development of Ohio EPA's DFFOs appropriate to address the modeled violations of the 2010 SO<sub>2</sub> NAAQS. Under 40 CFR 51.1205(d), EPA may take appropriate action in an area that modeling indicates is not attaining the 2010 SO<sub>2</sub> NAAQS, including but not limited to requiring the adoption of enforceable emission limits to ensure continued attainment of the 2010 SO<sub>2</sub> NAAQS, designation or redesignation of the area to nonattainment, or issuance of a SIP Call. Therefore, as a result of modeled 2010 SO<sub>2</sub> NAAQS violations, EPA proposes to find Ohio EPA's issuance of DFFOs establishing new SO<sub>2</sub> emission limits for Carmeuse Lime is appropriate, and no further action is needed by EPA for this area.

Due to modeled violations of the 2010 SO<sub>2</sub> NAAQS, Ohio EPA performed updated modeling for the 2021-2023 period resulting in an SO<sub>2</sub> critical emission rate of 1,350 lbs/hr from the combined kiln stack at Carmeuse Lime that receives and emits SO<sub>2</sub> emissions from rotary lime kiln #1 (EU P003) and rotary lime kiln #2 (EU P004). According to EPA's April 2014 SO<sub>2</sub> Guidance, determining a source's critical emission rate can serve "as a baseline for determining a longer-term average limit consistent with this guidance." To derive a longer-term limit, the 2014 SO<sub>2</sub> Guidance establishes a six-step process summarized as follows:

1. Establish a critical emission value via dispersion modeling

- that serves as compliance with the 1-hour SO<sub>2</sub> standard,
2. Compile hourly emissions rate data reflecting the distribution of emissions that is expected once the limit is in place,
  3. Calculate the longer-term emission rate average using hourly emission rate data from Step 2,
  4. Determine the 99th percentile of the 1-hour average emission values compiled in Step 2 and the 99th percentile of the 30-day average emission values computed in Step 3,
  5. Compute the ratio of the two 99th percentile values,
  6. Multiply the ratio by the critical emission value in Step 1 to find the 30-day average emission limit that is comparably stringent to the 1-hour limit.

As part of the DFFOs, Ohio EPA used the process in the 2014 SO<sub>2</sub> Guidance to calculate the allowable 30-day SO<sub>2</sub> emission limit with which the Carmeuse Lime facility must comply. Ohio EPA provided documentation of its calculations in its 2024 Annual SO<sub>2</sub> Emissions Review, which is included in the docket for this action.<sup>3</sup> The ratio of the 99th percentile of 1-hour average SO<sub>2</sub> emission rates and 99th percentile of 30-day average SO<sub>2</sub> emission rates from Carmeuse Lime based on actual emissions data from 2017-2022 was 0.8665. This ratio was multiplied by the critical emission value of 1,350 lbs/hr determined via dispersion modeling, resulting in an allowable 30-day average SO<sub>2</sub> emission

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<sup>3</sup> Ohio EPA's "Ohio's 2024 Annual Sulfur Dioxide (SO<sub>2</sub>) Emissions Review" can be found at [https://dam.assets.ohio.gov/image/upload/epa.ohio.gov/Portals/27/sip/SO2/2024\\_SO2\\_annual\\_emissions\\_Final.pdf](https://dam.assets.ohio.gov/image/upload/epa.ohio.gov/Portals/27/sip/SO2/2024_SO2_annual_emissions_Final.pdf)

rate of 1,170.0 lbs/hr from the combined lime kiln stack at the Carmeuse Lime facility by no later than 12 months from the effective date of the orders, in this case by November 8, 2025. EPA proposes to find Ohio EPA's allowable 30-day average SO<sub>2</sub> emission rate of 1,170.0 lbs/hr from the combined lime kiln stack at Carmeuse Lime issued in the DFFOs as sufficient to ensure continued attainment of the 2010 SO<sub>2</sub> NAAQS.

Per EPA's April 2014 SO<sub>2</sub> Guidance, sources would ordinarily rely on data obtained by continuous emissions monitoring system (CEMS) for sources with CEMS to demonstrate compliance with existing emission limits. Sources without CEMS wishing to apply longer term averaging need to establish an appropriate emission limit and an appropriate compliance method. The facilities without CEMS, such as Carmeuse Lime, would need sufficient data to demonstrate that the established emission limits adequately represent hourly emissions variability and consider a range of factors that influence emissions variability.

In consideration of EPA's April 2014 SO<sub>2</sub> Guidance, Ohio EPA's DFFOs include an order for the Carmeuse Lime facility, or any subsequent owner of the facility, to collect two random samples of coal and coke burned from each rotary lime kiln feed belt each day. These samples shall be combined into a weekly composite sample of each coal and coke respectively, and will be analyzed for sulfur content, in accordance with ASTM method D4239, "Standard Test Method for Sulfur in the Analysis Sample of Coal and Coke Using High-Temperature Furnace Combustion," or

an equivalent method approved by Ohio EPA. The analysis methods will satisfy the Facility's title V operating permit (permit #P0128727) monitoring and recordkeeping requirements for the emission unit group - rotary lime kilns P003 and P004.

To demonstrate compliance with the established emission limit, Ohio EPA relies on compliance methods based on a mass balance approach. This includes instructions to calculate the rolling 30-day average of SO<sub>2</sub> emissions in lbs/hr following a mass balance-based methodology in the orders. Additionally, the DFFOs will allow for the installation and use of a CEMS at the facility to monitor SO<sub>2</sub> emissions from the combined lime kiln stack for CEMS-based compliance methods consistent with 40 CFR part 60, appendix F. This will allow the replacement of existing mass balance-based compliance methods without a SIP revision submittal requirement in the event the facility installs CEMS.

In accordance with the mass balance-based compliance methods in the orders, the DFFOs describe the methodology to calculate the rolling 30-day average SO<sub>2</sub> emissions rate in lbs/hr from the combined lime kiln stack. This relies on a calculated scrubbing factor (F) determined by using the most recent valid stack test data of the facility's combined lime kiln stack.

Per the April 2014 SO<sub>2</sub> Guidance, an absence of CEMS can pose two challenges: (1) establishing an appropriate emission limit, and (2) establishing an appropriate compliance determination method. Because the facility is opting to apply a longer-term

average, exhaustive fuel quality data and exhaustive operating information are required to support an adequate assessment of emissions variability.<sup>4</sup> As such, Ohio EPA's DFFOs include orders to perform daily fuel consumption monitoring and maintain daily fuel consumption records that include type and quantity of fuel burned in the lime kilns each day. The facility is also required to maintain monthly fuel records that include the quantity of each fuel type received and the results of each sulfur content analyses of the required weekly composite sample. In select cases, routine fuel sulfur content measurements averaged as a rolling average over the appropriate period and established as an enforceable indicator of average emissions may suffice to assess compliance with a longer-term average limit.<sup>5</sup> Further, when approved and appropriate, the DFFOs require a record of the type and quantity of fuel burned to be maintained if a fuel other than coal, coke, or natural gas is burned at the facility. Ohio EPA also includes orders to submit deviation reports of days in which fuel other than coal, coke, or natural gas are burned, unless approved by the appropriate agency. These reports shall be submitted within thirty days after the deviation. EPA is proposing to determine these orders adequately address hourly emissions variability from the application of a longer-term average emission limit per EPA's April 2014 SO<sub>2</sub> Guidance.

### **III. What Action is EPA Taking?**

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<sup>4</sup> See April 2014 SO<sub>2</sub> Guidance, page 37.

<sup>5</sup> See April 2014 SO<sub>2</sub> Guidance, page 45.

EPA is proposing to approve Ohio EPA's DFFOs issued to the Carmeuse Lime facility, which Ohio EPA submitted on November 13, 2024, into the Ohio 2010 SO<sub>2</sub> NAAQS SIP. The DFFOs establish a new SO<sub>2</sub> emissions limit of 1,170.0 lbs/hr for the combined lime kiln stack that receives and emits SO<sub>2</sub> emissions from two rotary lime kilns that will ensure continued attainment of the 2010 SO<sub>2</sub> NAAQS.

#### **IV. Incorporation by Reference.**

In this rulemaking, EPA is proposing to include in a final EPA rule regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, EPA is proposing to incorporate by reference Ohio's DFFOs for Carmeuse Lime, Inc. Maple Grove facility issued by Ohio EPA, effective November 8, 2024, discussed in sections I and II of this preamble. EPA has made, and will continue to make, these documents generally available through [www.regulations.gov](http://www.regulations.gov) and at the EPA Region 5 Office (please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this preamble for more information).

#### **V. Statutory and Executive Order Reviews.**

Under the CAA, 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). In reviewing SIP submissions, EPA's role is to approve State choices provided they meet the criteria of the CAA. Accordingly, this action merely approves State law as

meeting Federal requirements and does not impose additional requirements beyond those imposed by State law. For that reason, this action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993);
- Is not subject to Executive Order 14192 (90 FR 9065, February 6, 2025) because SIP actions are exempt from review under Executive Order 12866;
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. § 3501 *et seq.*);
- Is 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.*);
- 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);
- Does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because it approves a State program;
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001); and
- Is 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.

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian Tribe has demonstrated that a Tribe has jurisdiction. In those areas of Indian country, the rulemaking does not have Tribal implications and will not impose substantial direct costs on Tribal governments or preempt Tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

**List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements, Sulfur oxides.

Dated: July 29, 2025.

**Cheryl Newton,**  
*Acting Regional Administrator, Region 5.*

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