This document is scheduled to be published in the Federal Register on 2026-08-14 and available online at https://www.federalregister.gov/d/2026-16570, and on https://govinfo.gov

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R07-OAR-2026-5809; FRL-13519-01-R7]

Air Plan Approval; Iowa; Interstate Transport Requirements for the 2010 Sulfur Dioxide Standard

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve the State Implementation Plan (SIP) submission from Iowa addressing the Clean Air Act (CAA or Act) interstate transport requirements, also known as the "good neighbor" provision, for the 2010 1-hour primary sulfur dioxide (SO_2) National Ambient Air Quality Standard (NAAQS). The good neighbor provision requires each State's plan to contain adequate provisions prohibiting the interstate transport of air pollution in amounts that will contribute significantly to nonattainment, or interfere with maintenance, of a NAAQS in any other State. The EPA's proposed approval of this rule revision is being done in accordance with the requirements of the CAA.

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

ADDRESSES: You may send comments, identified by Docket ID No. EPA-R07-OAR-2026-5809, to https://www.regulations.gov. Follow the online instructions for submitting comments.

Instructions: All submissions received must include the Docket ID No. for this rulemaking. Comments received will be posted without change to https://www.regulations.gov/, including any personal information provided. For detailed instructions on sending comments and additional information on the rulemaking process, see the "Written Comments" heading of the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: Bethany Olson, Environmental Protection Agency, Region 7 Office, Air and Radiation Division, 11201 Renner Boulevard, Lenexa, Kansas 66219, telephone number: (913) 551-7905, email address: olson.bethany@epa.gov.

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

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I. Written Comments

Submit your comments, identified by Docket ID No. EPA-R07-OAR-2026-5809 at https://www.regulations.gov. Once submitted, comments cannot be edited or removed from Regulations.gov. The 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. The 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, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit https://www.epa.gov/dockets/commenting-epa-dockets.

II. What is being addressed in this document?

The EPA is proposing to approve the infrastructure SIP submitted by the Iowa Department of Natural Resources (IDNR) on March 26, 2024. The EPA proposes to find Iowa's SIP contains adequate provisions consistent with CAA section 110(a)(2)(D)(i)(I) to ensure that emissions from sources in Iowa will not significantly contribute to nonattainment, or interfere with maintenance, of the 2010 primary 1-hour SO_2 NAAQS in any other state. The EPA often refers to these requirements as Prong 1 (significant contribution to nonattainment of the NAAQS) and Prong 2 (interference with maintenance of the NAAQS). We are addressing the Prong 1 and Prong 2 requirements for the 2010 SO_2 NAAQS in this action. All other applicable infrastructure SIP requirements for Iowa are addressed in separate rulemakings. The State submittal and the EPA's technical support document (TSD) can be found in the docket for this action.

III. Background

A. Infrastructure SIPs

On June 2, 2010, the EPA established a new primary 1-hour SO_2 NAAQS of 75 parts per billion (ppb), based on a three-year average of the annual 99th percentile of 1-hour daily maximum concentrations.[1] The CAA requires states to submit, within three years after promulgation of a new or revised NAAQS, SIP submissions meeting the applicable "infrastructure" elements of sections 110(a)(1) and (2).[2] One of these applicable infrastructure elements, CAA section 110(a)(2)(D)(i), requires SIPs to contain provisions to prohibit emissions having certain adverse air quality effects in other states due to interstate transport of pollution.

Section 110(a)(2)(D)(i) includes four distinct components, commonly referred to as "prongs," that must be addressed in infrastructure SIP submissions. The first two prongs, which are codified in section 110(a)(2)(D)(i)(I), require SIPs to contain adequate provisions that

[1] See 75 FR 35520 (June 22, 2010).
[2] The EPA revised the secondary SO_2 NAAQS in December 2024. The revised secondary SO_2 standard is an annual average, averaged over three consecutive years, with a level of 10 ppb. The CAA section 110(a)(1) requirements for the 2024 revised secondary SO_2 standard are not addressed in this document.

prohibit any source or other type of emissions activity in one state from contributing significantly to nonattainment of the NAAQS in another state (prong 1) and from interfering with maintenance of the NAAQS in another state (prong 2). The third and fourth prongs, which are codified in section 110(a)(2)(D)(i)(II), require SIPs to contain adequate provisions that prohibit emissions activity in one state from interfering with measures required to prevent significant deterioration of air quality in another state (prong 3) or from interfering with measures to protect visibility in another state (prong 4).

For the 2010 SO_2 NAAQS, the EPA evaluates several factors on a case-by-case basis to determine if emissions from one state interfere with another state's ability to attain and maintain the NAAQS. In these evaluations, the EPA examines available data, including current air quality monitoring or modeling information, emissions data and trends, meteorological conditions, and topographical features, to determine if the state's submission satisfies the good neighbor provision.

B. 2010 1-hour SO_2 NAAQS Designations

In this action, the EPA considers information from the 2010 1-hour primary SO_2 NAAQS designations process, as discussed in more detail in section IV. of this document. For this reason, a brief summary of the EPA's designations process for the 2010 SO_2 NAAQS is included here. While designations may provide useful information for purposes of analyzing transport, the EPA notes that designations themselves are not dispositive of whether or not upwind emissions are impacting areas in downwind states. The EPA has consistently taken the position that CAA section 110(a)(2)(D) requires elimination of significant contribution and interference with maintenance, and this analysis is not limited to designated nonattainment areas. Nor must designations for nonattainment areas have first occurred before states or the EPA can act under section 110(a)(2)(D)(i)(I).[3]

[3] *See, e.g.,* Clean Air Interstate Rule, 70 FR 25162, 25265 (May 12, 2005); Cross State Air Pollution Rule, 76 FR 48208, 48211 (August 8, 2011); Final Response to Petition from New Jersey Regarding SO_2 Emissions From the

After the EPA establishes a new or revised NAAQS, the EPA is required to designate areas as "nonattainment," "attainment," or "unclassifiable," pursuant to section 107(d)(1) of the CAA. The process for designating areas following promulgation of a new or revised NAAQS is contained in section 107(d) of the CAA. The CAA requires the EPA to complete the initial designations process within two years of promulgating a new or revised standard. If the Administrator has insufficient information to make these designations by that deadline, the EPA has the authority to extend the deadline for completing designations by up to one year.

The EPA Administrator signed the first round of designations ("Round 1")[4] for the 2010 1-hour SO_2 NAAQS on July 25, 2013, designating 29 areas in 16 states as nonattainment for the 2010 1-hour SO_2 NAAQS.[5] The EPA Administrator signed *Federal Register* documents for Round 2 designations on June 30, 2016 and on November 29, 2016, Round 3 designations on December 21, 2017, and Round 4 designations on December 21, 2020 and on April 8, 2021.[6]

For Iowa, the EPA designated a portion of Muscatine County, Iowa as nonattainment during Round 1 designations effective October 4, 2013,[7] based on available monitoring data. In Round 2 designations, the EPA designated Woodbury County as unclassifiable; and Wapello County and Des Moines County as attainment/unclassifiable effective August 12, 2016, based on available air quality monitoring data or air quality modeling.[8] In Round 3, the EPA designated Linn County as unclassifiable; Louisa County and Pottawattamie County as attainment/unclassifiable; and the remaining undesignated counties and partial counties in Iowa as attainment/unclassifiable effective April 9, 2018. [9]

Portland Generating Station, 76 FR 69052 (November 7, 2011) (finding facility in violation of the prohibitions of CAA section 110(a)(2)(D)(i)(I) with respect to the 2010 1-hour SO_2 NAAQS prior to issuance of designations for that standard).

[4] The term "round" in this instance refers to which "round of designations."

[5] See 78 FR 47191 (August 5, 2013).

[6] See 81 FR 45039 (July 12, 2016); 81 FR 89870 (December 13, 2016); 83 FR 1098 (January 9, 2018); 86 FR 16055 (March 26, 2021); and 86 FR 19576 (April 14, 2021), respectively.

[7] See 78 FR 47191 (August 5, 2013).

[8] See 81 FR 45039 (July 12, 2016).

[9] See 83 FR 1098 (January 9, 2018).

The EPA redesignated the nonattainment area in Muscatine County, Iowa to attainment effective December 18, 2025.[10] There are no designated nonattainment areas in any other states within 50 km of the Iowa border.

C. Relevant Factors to Evaluate 2010 SO_2 Interstate Transport SIPs

Although SO_2 is emitted from a similar universe of point and nonpoint sources, interstate transport of SO_2 is unlike the transport of fine particulate matter ($PM_{2.5}$) or ozone, in that SO_2 is not a regional pollutant and does not commonly contribute to widespread nonattainment over a large (and often multi-state) area. The transport of SO_2 is more analogous to the transport of lead (Pb) because its physical properties result in localized pollutant impacts very near the emissions source. However, ambient concentrations of SO_2 do not decrease as quickly with distance from the source as do 3-month average concentrations of Pb, because SO_2 gas is not removed by deposition as rapidly as Pb particles. Emitted SO_2 has wider ranging impacts than emitted Pb, but it does not have such wide-ranging (far downwind) impacts that treatment in a manner similar to ozone or $PM_{2.5}$ would be appropriate. Accordingly, the approaches that the EPA has adopted for ozone or $PM_{2.5}$ transport are too regionally focused, and the approach for Pb transport is too tightly circumscribed to the source, to be appropriate for accessing SO_2 transport. SO_2 transport is therefore a unique case and necessitates an analytical approach that examines potential impacts that are further from the source than would be examined for Pb transport but less regional in scope than ozone or PM transport.

In this proposed rulemaking, and consistent with prior SO_2 transport analyses, the EPA focused on a 50 kilometer (km)-wide zone around sources of interest because the physical properties of SO_2 result in relatively localized pollutant impacts near an emissions source that drop off with distance. Given the physical properties of SO_2, the EPA typically focuses its analysis on the "urban scale" – a spatial scale with dimensions from 4 to 50 kilometers (km) from point sources – given the usefulness of that range in assessing trends in both area-wide air

[10] See 90 FR 51554 (November 18, 2025).

quality and the effectiveness of large-scale pollution control strategies at such point sources.[11] The EPA's selection of this transport distance for SO_2 is based upon 40 CFR part 58, appendix D, section 4.4.4(4) "Urban scale," which states that measurements in this scale would be used to estimate SO_2 concentrations over large portions of an urban area with dimensions from four to 50 km. The American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) is the EPA's preferred modeling platform for regulatory purposes for near-field dispersion of emissions for distances up to 50 km. See appendix W of 40 CFR part 51. As such, the EPA utilized an assessment up to 50 km from point sources to assess trends in area-wide air quality that might impact downwind states.

As discussed in section IV. of this proposed action, and in further detail in the TSD for this action, the EPA first reviewed Iowa's SIP submittal to assess how the State evaluated the transport of SO_2 to other states, the types of information used in the analysis, and the conclusions drawn by the state. The EPA elected to further review and analyze other available information regarding SO_2 emissions and air quality to fully assess whether Iowa meets its good neighbor obligations for the 2010 SO_2 NAAQS as required by the CAA.[12]

Consistent with prior evaluation of other states' SO_2 transport obligations, we conducted a weight of evidence (WOE) analysis evaluating several sources of information, including monitored air quality data, emissions data, and/or modeling for sources in Iowa and neighboring states within 50 km of the Iowa border. A WOE approach can be appropriate in instances, such as this case, to determine whether SO_2 emissions from Iowa contribute to nonattainment or maintenance issues in adjoining states. A WOE analysis that is based solely on available data

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[11] For the definition of spatial scales for SO_2, please see 40 CFR part 58, appendix D, section 4.4 ("Sulfur Dioxide (SO_2) Design Criteria"). For further discussion on how the EPA is applying these definitions with respect to interstate transport of SO_2, see the EPA's proposal on Connecticut's SO_2 transport SIP. 82 FR 21351, 21352, 21354 (May 8, 2017).

[12] This proposed action is based on the information contained in the administrative record for this action and does not prejudge any future EPA action that may make other determinations regarding the air quality status in Iowa and downwind states. Any such future action, such as action on a CAA section 126(b) petition or area designations under any NAAQS, will be based on their own administrative records and the EPA's analyses of information that becomes available at that time. Future available information may include, monitoring data and modeling analyses conducted by states, air agencies, and third-party stakeholders.

may not be sufficient in all instances for evaluating interstate SO_2 transport, and additional analysis may be necessary. Further, the term "WOE" does not establish the legal or technical meaning for what constitutes significant contribution to nonattainment or interference with maintenance for the 2010 SO_2 NAAQS. Rather, the term refers to the gathering and consideration of a wide range of information, on a case-by-case basis, to make a determination regarding whether a statutory or regulatory requirement is met.

In other SO_2 transport actions, the EPA has used a WOE analysis to reach a conclusion that there are no SO_2 nonattainment or maintenance issues in the relevant areas of other states, or that no sources in the upwind state are contributing to those issues. If the available evidence indicated, however, that an upwind source, sources, or emissions activities were contributing to an out-of-state SO_2 nonattainment or maintenance problem, then further analysis and a regulatory determination would be necessary concerning what amount of emissions, if any, constituted "significant contribution" under Prong 1 or Prong 2 of the good neighbor provision.

In this action, we propose to find that there is sufficient information to support the EPA's proposed determination that, under baseline conditions and likely future emissions scenarios, no Iowa sources are contributing or will contribute to any out-of-state SO_2 nonattainment or maintenance concerns, and therefore it is not necessary for the purposes of this action to render a determination concerning what amount of emissions would be "significant" and therefore subject to prohibition under the good neighbor provision.[13]

IV. Iowa's SIP Submission and the EPA's Analysis

On March 26, 2024, IDNR submitted a SIP revision to address the requirements of CAA sections 110(a)(1) and (2), including the interstate transport requirements in section 110(a)(2)(D)(i)(I) (Prongs 1 and 2) for the 2010 primary 1-hour SO_2 NAAQS. Iowa made its

[13] *Cf. Genon Rema* v. *EPA,* 722 F.3d 513 (3d Cir. 2013) (upholding EPA grant of CAA section 126(b) petition and establishment of direct federal emissions control requirements on SO_2 source in Pennsylvania found to be significantly contributing to nonattainment and interfering with maintenance of the 2010 SO_2 NAAQS in New Jersey).

submittal available for public comment from February 21, 2024, to March 21, 2024, and held a public hearing on that date. The State received and responded to two comments from private citizens and included the comments and its responses in section 6 of the state submittal, included in the docket for this action.

The Iowa submission provides an analysis for Prongs 1 and 2 based on air monitoring data, emissions, meteorological conditions, and transport distances. The State also reviewed AERMOD air quality modeling results where available. The following sections provide an overview of the State's SO_2 transport analysis for the 2010 SO_2 NAAQS, as well as the EPA's evaluation.

A. State Submission

The State plan includes a review of ambient air monitoring data for Iowa and surrounding states. Section 2.1 of the State submittal provides the monitored 1-hour SO_2 design values for 2017-2019 for monitors located within 50 km of Iowa's border in Iowa, Nebraska, and South Dakota. (There are no monitors located within 50 km of Iowa's border in Missouri, Illinois, Wisconsin, or Minnesota.) There are no violating design values at monitors in Iowa or neighboring states within 50 km of the state border. As shown in table 2-1, the highest 3-year design value (composed of the 3-year average of the annual 99th percentile of 1-hour daily maximum SO_2 concentrations) for sites within 50 km of the border is 25 ppb, or 33% of the 75 ppb standard. As shown in table 2-2, the highest 3-year design value in a neighboring state is 41 ppb in Omaha, Nebraska, which is slightly over half of the NAAQS at 55%. Though ambient air monitoring data does not show any violation of the 1-hour SO_2 NAAQS, the air monitoring network alone is not adequate to characterize SO_2 levels in all areas of analysis.

The State submittal further evaluates potential air quality impacts from SO_2 sources to identify which sources and emissions activities in Iowa could potentially affect attainment or maintenance of the 2010 SO_2 NAAQS in downwind states. The State used information in the

EPA's National Emissions Inventory (NEI)[14] and annual point source emissions data for this analysis. The triennial NEI is a comprehensive and detailed estimate of air emissions for criteria pollutants, criteria pollutant precursors, and hazardous air pollutants. This NEI includes data from all air emission sources and categories using information provided by the states and other information available to the EPA. Though the comprehensive NEI is only completed every three years, states report point source emissions from major sources annually to the Emissions Inventory System (EIS).[15] Iowa chose to rely on the 2017 NEI dataset because the State asserts the 2020 NEI was influenced by the COVID-19 pandemic and resulted in abnormally low SO_2 emissions. To evaluate annual point source emissions, Iowa chose to rely on the 2019 dataset as the most recent pre-pandemic year at the time of the analysis. In the EPA's analysis, we considered data from more recent annual NEI reports to evaluate emissions trends, both Statewide and at the facility level.

Iowa's analysis in table 2-5 of the state submission shows that 97% of statewide SO_2 emissions were from point sources in 2017. Because point sources account for a majority of Iowa's statewide SO_2 emissions, the State plan focused on point source emissions to evaluate potential downwind impacts. Iowa further demonstrated that when the analysis is limited to sources emitting more than 100 tons per year (tpy), 98% of point source emissions within 50 km of the state border are accounted for. The State identified sixteen Iowa facilities located within 50 km of the border with SO_2 emissions greater than or equal to 100 tons per year (tpy) based on point source data for 2019. The facilities identified are Iowa Power & Light Lansing Generating Station (IPL-Lansing), Heidelberg Materials US Cement (Heidelberg Cement), Archer Daniels Midland Clinton (ADM-Clinton), Guardian Industries Corporation, Iowa Army Ammunition Plant, Iowa Power & Light Burlington (IPL-Burlington), University of Iowa, Climax

[14] EPA's NEI is available and accessible to the public at https://www.epa.gov/air-emissions-inventories/national-emissions-inventory.
[15] The EIS is EPA's database used to receive and store emissions data and generate emissions inventories. The EIS Gateway is a web-based tool developed to provide only registered EPA, State, local and Tribal users with access to emission inventory data for sources in their jurisdiction.

Molybdenum Company, Roquette America, Inc., MidAmerican Louisa Generating Station (MidAmerican-Louisa), Muscatine Power & Water, SSAB Iowa, Inc., MidAmerican Walter Scott Jr. Energy Center (MidAmerican-Walter Scott), Continental Cement Company Davenport, MidAmerican George Neal North, and MidAmerican George Neal South.

Iowa provided an analysis for each of the 16 facilities by assessing available modeling information, current permitted emissions rates, and existing control technologies. One facility, IPL-Lansing, permanently shut down in 2022 and, therefore, the EPA did not evaluate it in this action.[16] The remaining fifteen facilities are listed in table 1.

Table 1. Iowa sources within 50 km of the state border with 2019 SO_2 emissions of 100 tons or more

County	Facility Name	Distance to Nearest State (km)	2019 Emissions (tpy)
Cerro Gordo	Heidelberg Materials US Cement	36 (MN)	101
Clinton	ADM-Clinton	1.4 (IL)	713
Clinton	Guardian Industries	19 (IL)	135
Des Moines	Iowa Army Ammunition Plant	13.5 (IL)	204
Des Moines	IPL-Burlington	0.4 (IL)	3,129
Johnson	University of Iowa	49 (IL)	176
Lee	Climax Molybdenum	3.3 (IL)	178
Lee	Roquette America	0.5 (IL)	293
Louisa	MidAmerican- Louisa	1.7 (IL)	5,286
Muscatine	Muscatine Power & Water	0.5 (IL)	1,715
Muscatine	SSAB Iowa-Muscatine	2.8 (IL)	127
Pottawattamie	MidAmerican- Walter Scott	0.4 (NE)	8,895
Scott	Continental Cement-Davenport	0.3 (IL)	1,087
Woodbury	MidAmerican-George Neal North	0.2 (NE)	3,113
Woodbury	MidAmerican- George Neal South	0.8 (NE)	2,617
TOTAL SO_2 EMISSIONS			**27,769**

[16] The Title V operating permit for IPL-Lansing was rescinded on August 9, 2023.

B. The EPA's Analysis

The EPA provides further analysis of available monitoring data for Iowa as well as surrounding states in section IV. of the TSD for this action.[17] For this analysis, the EPA reviewed the most recent 2022-2024 monitoring data recorded in the EPA's Air Quality System (AQS). There are no violating design values at monitors in Iowa or neighboring states within 50 km of the state border. For the 2022-2024 period, the highest 3-year design value is 41 ppb in Omaha, Nebraska, which is slightly over half of the NAAQS at 55% of the 75 ppb standard.

The EPA also provides a facility-specific analysis for each facility identified in table 1 based on permitting information, emissions data, and modeling analyses in section V. of the TSD. The EPA utilized refined modeling results where available. Any changes to existing modeling are noted in the analysis for each facility.

For the large SO_2 sources without available modeling, EPA conducted simplified, high-level dispersion modeling analyses, referred to in this action as screening modeling analysis. The screening modeling analysis performed by EPA is a simplified setup which utilized the total annual emissions reported to the NEI but only included a subset of the individual emission points. The specific subset for each source was chosen based on the individual emission points which together constitute 95% or more of the total annual emissions. The remaining emissions were then proportionally distributed among the subset of emission points. The EPA based modeled emission rates on each source's highest reported annual emissions for years 2022 through 2024 to conservatively capture the current operating status of each source. The modeled hourly emission rates in lb/hr were calculated based on the reported number of operating hours in the year associated with the highest annual emissions. The EPA's simplified modeling analysis did not include buildings or

[17] Monitoring data are evaluated in accordance with 40 CFR 50.17 using data analysis procedures specified in 40 CFR part 50, appendix T.

building wake effects (downwash) or property boundaries (i.e., the entire modeling domain was treated as ambient air by placing receptors throughout the grid).

For both the refined modeling and the screening level modeling, the modeling results are presented as the maximum modeled SO_2 design concentrations in micrograms per cubic meter ($\mu g/m^3$) at receptors located outside of the Iowa border. These maximum design concentrations at each source were determined based on the fourth-highest daily maximum 1-hour modeled values averaged over the number of years of meteorological data used in each modeling simulation. The 2010 1-hour SO_2 NAAQS of 75 ppb is equivalent to 196.4 $\mu g/m^3$. The results for each facility are discussed below and in more detail in the TSD for this action. The modeling input files are available by request from the contact listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.

1. The EPA's Prong 1 Evaluation – Contribute Significantly to Nonattainment

Prong 1 of the "good neighbor" provision requires state plans to prohibit emissions that will contribute significantly to nonattainment of the NAAQS in another state. The EPA's evaluation[18] of whether Iowa has met its Prong 1 transport obligations was accomplished by considering all available information, including the following: SO_2 ambient air quality in Iowa and neighboring states; SO_2 emissions trends for Iowa and neighboring states; potential ambient impacts of SO_2 emissions from certain facilities[19] in Iowa on neighboring states; Iowa's SIP-approved regulations specific to SO_2 emissions and permit requirements; and other SIP-approved or federally enforceable regulations which may reduce SO_2 emissions either directly or indirectly.

Based on the State submission and EPA's analysis, we propose to determine that there are no SO_2 nonattainment concerns in the relevant areas in other states bordering Iowa, and as such

[18] The TSD for this action contains a detailed review of the EPA's evaluation of emissions, air monitoring data, other technical information and rational for proposed approval of this SIP revision as meeting CAA section 110(a)(2)(D)(i)(I) for the 2010 1-hour SO_2 NAAQS.

[19] The physical properties of SO_2 result in relatively localized pollutant impacts very near the emissions source. Therefore, the EPA selected a spatial scale with dimensions up to 50 km from point sources.

the EPA proposes to determine that Iowa's SIP satisfies the requirements of Prong 1 of CAA section 110(a)(2)(D)(i)(I). This proposed determination is based on the following considerations:

- There are no monitors within 50 km of the Iowa border recording violations of the 2010 SO_2 NAAQS; all monitors have a design value (DV) that is below the 75 ppb standard. Current DVs for Iowa's SO_2 monitors within 50 km of another state's border remained below the 2010 1-hour SO_2 NAAQS from 2022-2024; similarly, to the extent available, SO_2 monitors in neighboring states (specifically, Nebraska and South Dakota) within 50 km of Iowa have 2022-2024 DVs below the 2010 1-hour SO_2 NAAQS.
- Downward SO_2 emissions trends in Iowa and surrounding states (Nebraska, Missouri, Illinois, Indiana, Wisconsin, Minnesota, and South Dakota), when considered with other factors discussed as part of the EPA's WOE analysis further support that Iowa's sources will not significantly contribute to any state's nonattainment of the 2010 1-hour SO_2 NAAQS.
- Source-specific analyses of each Iowa source emitting over 100 tpy of SO_2 and located within 50 km of the State border indicate that the sources do not contribute to nonattainment in other states. These analyses draw upon available emissions data, monitoring data, air quality modeling, control requirements, unit retirements, fuel conversions, and other relevant information to assess the likelihood of air quality impacts from these sources to areas in surrounding states. A detailed discussion of each source-specific analysis is contained in the State submittal and/or the TSD for this action.

Below we summarize the principal evidence that SO_2 emissions from the relevant Iowa sources are not likely to pose a transport concern.

- Muscatine Power & Water is located in Muscatine County, and MidAmerican-Louisa is in neighboring Louisa County; both are eastern Iowa counties that border Illinois. There are two monitoring sites located in the Muscatine area, Musser Park and Muscatine HS. The most recent 2022-2024 DV for the Muscatine area was 17 ppb. Both sources were

included in recent modeling for the Muscatine maintenance area, along with two additional sources with SO_2 emissions of less than 100 tpy.[20] The modeling result for the Muscatine maintenance area is shown in Figure 5.4 of the TSD for this action. The maximum modeled SO_2 concentration outside of Iowa is 158.3 $\mu g/m^3$, including a background concentration of 5 $\mu g/m^3$. This concentration is below the level of the NAAQS indicating that these sources will not contribute to nonattainment in Illinois.

- Iowa Army Ammunition Plant and IPL-Burlington are located in Des Moines County, which borders Illinois. There are no SO_2 monitors in this area. Both sources were modeled in Round 2 of the 2010 1-hour SO_2 NAAQS designations.[21] Since that time, IPL-Burlington ceased operation of its coal boilers and no longer emits SO_2.[22] Further evaluation of the facility is not needed. The modeling result for Iowa Army Ammunition Plant is shown in Figure 5.7 of the TSD. The maximum receptor outside of Iowa is 52.0 $\mu g/m^3$ which includes a background SO_2 concentration of 32 $\mu g/m^3$. This concentration is below the level of the NAAQS and indicates this source will not contribute to nonattainment in Illinois. Furthermore, the modeled emission rate is equivalent to 2,727 tons/year and is well above recent actual SO_2 emissions from Iowa Army Ammunition Plant making these results a conservatively high modeled estimate of SO_2 impacts outside of Iowa.
- MidAmerican-Walter Scott is in Pottawattomie County, which borders Nebraska. Nebraska has two monitoring sites located northwest of Walter Scott, the Whitmore and 4102 Woolworth Ave sites. The most recent 2022-2024 DVs are 41 ppb and 18 ppb, respectively. The EPA considered available refined modeling for Walter Scott conducted for Round 3 of the 2010 1-hour SO_2 NAAQS designations.[23] This modeling included the

[20] See 90 FR 51554 (November 18, 2025).
[21] See 81 FR 45039 (July 12, 2016).
[22] Coal combustion is prohibited at this facility in Iowa DNR Air Quality Construction Permit number 93-A-390-S13, issued December 27, 2021.
[23] See 83 FR 1098 (January 9, 2018).

nearby Omaha Public Power District – North Omaha facility, located in Douglas County, Nebraska approximately 19 km to the northwest of Walter Scott. As shown in Figure 5.10 of the TSD, the maximum receptor outside of Iowa is 115.3 $\mu g/m^3$ including a background concentration of 7 $\mu g/m^3$. This concentration is below the level of the NAAQS. Furthermore, the modeled emission rate is equivalent to over 12,000 tpy for Walter Scott, and is well above recent actual SO_2 emissions, which yields a conservatively high modeled estimate of SO_2 impacts outside of Iowa. Beginning December 31, 2023, revised permit conditions required MidAmerican to implement operational improvements to Walter Scott Unit 3's existing dry scrubber system and meet an emission limit that is based on a 72% reduction in SO_2 emissions from the baseline years of 2017 to 2019.[24] Following the 2023 compliance deadline, the 2024 annual SO_2 emissions decreased to 3,006 tons. The available modeling and downward emissions trends indicate this source will not contribute to nonattainment in Nebraska.

- MidAmerican-George Neal North (GNN) and MidAmerican-George Neal South (GNS) are located in Woodbury County which borders Nebraska and South Dakota. At GNN, two coal-fired boilers (Units 1 and 2) were retired in 2016 and the permits for those units were rescinded. GNN Unit 3 is controlled by an electrostatic precipitator and flue gas desulfurization installed in 2014 as required by construction permit #95-A-313-P9. At GNS, its coal-fired unit (Unit 4) is controlled by an electrostatic precipitator and flue gas desulfurization, which was also installed in 2014 as required by construction permit #05-A-655-P5. Since the installation of controls and the shutdown of Unit 1 and Unit 2, annual SO_2 emissions (shown in Figures 5.11 and 5.12 of the TSD) from both facilities generally trended downward. For GNN, SO_2 emissions decreased by 3,674 tons, or 70%, from 2015-2024. For GNS, SO_2 emissions decreased by 6,286 tons, or 79%. Available modeling from Round 2 of the 2010 1-hour SO_2 NAAQS designations demonstrates that

[24] Iowa DNR Air Quality Construction Permit number 75-A-357-P9.

the maximum SO_2 impact outside of Iowa is approximately 6 km northwest of the facility in Nebraska, as shown in Figure 5.14 of the TSD. The maximum receptor outside of Iowa is 191.4 $\mu g/m^3$ including a conservative estimation of a background concentration of 32 $\mu g/m^3$. The modeled SO_2 emission rates are based off of permitted allowable limits and are equivalent to nearly 12,000 tons/year for GNN and 15,000 tons/year for GNS, which are well above recent actual SO_2 emissions and yields a conservatively high modeled estimate of SO_2 impacts outside of Iowa. The available modeling based on permitted allowable rates and downward emissions trends indicate these sources will not contribute to nonattainment in Nebraska or South Dakota.

- ADM-Clinton is located in Clinton County. There is one source-oriented SO_2 monitoring site near ADM-Clinton, Chancy Park. The SO_2 design values for the Chancy Park site have consistently been well below the 1-hour SO_2 NAAQS, with the most recent 2022-2024 design value being 36 ppb. The State submission asserts that comparable concentrations could be expected in neighboring areas in Illinois. The EPA performed a screening modeling analysis, as further described in the TSD for this action. Based on the facility's 2022 annual SO_2 emissions of 595 tons, the screening analysis predicted maximum concentrations well below the NAAQS in Illinois, indicating this source will not contribute to nonattainment in Illinois.
- Continental Cement-Davenport is located in Scott County. The State submission asserts that Continental Cement's SO_2 emissions are emitted at a height and exit temperature that should contribute to good dispersion and emissions will trend downward due to reduced coal use at the facility. The EPA performed a screening modeling analysis, as further described in the TSD for this action. Based on the facility's 2024 annual SO_2 emissions of 2,276 tons, the screening analysis predicted maximum concentrations well below the standard. The modeling domain for Continental Cement overlaps with the modeling domain for SSAB-Muscatine, which was also assessed through screening level modeling.

The maximum modeled impact outside of Iowa for both sources combined is 47.15 µg/m^3 (40.98 µg/m^3 for Continental Cement and 6.17 µg/m^3 for SSAB-Muscatine) and is still well below the NAAQS, indicating these sources will not contribute to nonattainment in Illinois.

- Climax Molybdenum and Roquette America are both located in Lee County which borders Illinois and Missouri. The closest SO_2 monitoring site is located at Lake Sugema, approximately 50 km northwest of Climax Molybdenum. The Lake Sugema site is representative of background concentrations and has a 2022-2024 design value of 3 ppb. There are no SO_2 monitors in Illinois or Missouri within 50 km of Iowa's borders. Iowa's submission asserts that emissions from both facilities are emitted at a height and exit temperature that should contribute to good dispersion, which coupled with relatively low emissions would indicate that impacts on surrounding states are minimal. The EPA performed screening a modeling analysis for each source, as further described in the TSD for this action. For Climax Molybdenum, the screening analysis was based on the facility's 2023 annual SO_2 emissions of 217 tons and the maximum modeled concentration outside of Iowa was 16.62 µg/m^3 in Illinois. For Roquette, the screening analysis was based on the facility's 2023 annual SO_2 emissions of 265 tons and the maximum modeled concentration outside of Iowa was 141.68 µg/m^3 in Illinois. The modeling domains for the two sources do not overlap. The screening level analyses predicted concentrations below the NAAQS, indicating these sources will not contribute to nonattainment in Illinois or Missouri.
- The EPA evaluated three additional sources, Heidelberg Materials US Cement, Guardian Industries, and the University of Iowa. There are no SO_2 monitors near these sources. The EPA assessed each source through a screening modeling analysis based on the maximum annual SO_2 emissions from 2022-2024. For all three facilities the resulting modeling grid was wholly contained within Iowa. The screening model analyses for each source

predicted concentrations well below the NAAQS with decreasing concentrations toward the edges of the modeling domain, indicating these sources will not contribute to nonattainment in nearby states.

Based on this evaluation, as more thoroughly discussed in our TSD for this action, the EPA proposes to find that no sources or emissions activities within Iowa will significantly contribute to nonattainment of the 2010 1-hour SO_2 NAAQS in any other state.

2. EPA's Prong 2 Evaluation – Interference with Maintenance

Prong 2 of the "good neighbor" provision requires state plans to prohibit emissions that will interfere with maintenance of a NAAQS in another state. The EPA's evaluation of whether Iowa has met its Prong 2 transport obligations was accomplished by considering all available information, with a focus on current air quality data, SO_2 emissions trends for Iowa and neighboring states, and how existing and future sources of SO_2 are addressed through existing SIP-approved and federally enforceable regulations. This evaluation builds upon the analysis conducted for significant contribution to nonattainment (Prong 1), which evaluated SO_2 ambient air quality in Iowa and neighboring states and potential ambient impacts of SO_2 emissions from certain facilities in Iowa on neighboring states.

Based on the State submission and EPA's analysis, we propose to find that SO_2 levels near the Iowa border in neighboring states do not indicate an inability to maintain the 2010 SO_2 NAAQS that could be attributed in part to sources in Iowa, and as such, the EPA proposes to determine that Iowa's SIP submittal satisfies the requirements of Prong 2 of CAA section 110(a)(2)(D)(i)(I). This determination is based on the following considerations:

- Current 2022-2024 DVs for monitors in Iowa within 50 km of another state's border and to the extent available in neighboring states (specifically, Nebraska and South Dakota) within 50 km of Iowa's border are below the standard, indicating that these areas are currently in attainment of the 2010 1-hour SO_2 NAAQS;

- State-wide emissions trends in Iowa indicate generally declining SO_2 emissions and consequently declining impacts to the relevant areas;
- Source-specific analyses show that facility-level emissions are decreasing as a result of emissions unit shutdowns and control technology installation, indicating that emissions are not anticipated to increase relative to baseline emissions;
- Iowa's approved SIP at 40 CFR part 52, subpart Q includes enforceable emission limits and other control measures to implement the SO_2 NAAQS. Iowa's SIP-approved measures are contained in 567 Iowa Administrative Code (IAC) Chapters 20-33; and
- Iowa's SIP-approved PSD, major New Source Review (NSR) regulations, and minor source NSR permit programs address future new and modified SO_2 sources above major and minor permitting thresholds with the intent of ensuring that the SO_2 NAAQS will not be exceeded within the State or in surrounding States as a result of new facility construction or existing facility modification. 567 IAC 22.3(1)b. prohibits the issuance of a construction permit where the expected emissions from the proposed source or modification in conjunction with all other emissions prevents the attainment or maintenance of the NAAQS.[25]

Based on this evaluation, as more thoroughly discussed in our TSD for this action, the EPA proposes to find that sources within Iowa will not interfere with maintenance of the 2010 1-hour SO_2 NAAQS in any other State.

V. Proposed Action

[25] The EPA notes that in the context of evaluating transport for other NAAQS pollutants, such as ozone, the effects of existing emissions control measures are taken into account in Step 1 and Step 2 of its 4-step framework through its nationwide analytical methodology that relies on photochemical grid modeling and source attribution techniques. Thus, in that context, once a state is identified as "linked" at Step 2, reliance on existing control measures is considered insufficient, since such measures have already been taken into account in the modeling. Here, without the benefit of such modeling, a state's existing control programs that have been approved into its SIP can have some relevance insofar as they provide confidence that sources subject to such requirements are not authorized to emit in excess of such requirements. However, without further, more detailed information concerning how these requirements function to constrain emissions at the particular existing (or potential new) sources of relevance to an SO2 transport analysis, the EPA considers general information concerning a state's approved programs to be of only minimal relevance or utility.

The EPA is proposing to approve Iowa's March 26, 2024, submittal as meeting the interstate transport requirements of CAA section 110(a)(2)(D)(i)(I) for the 2010 primary 1-hour SO_2 NAAQS. The EPA is proposing this approval based on our review of the information and analysis provided by the State, as well as additional relevant information, which indicates that in-state air emissions will not contribute significantly to nonattainment or interfere with maintenance of the 2010 SO_2 NAAQS in any other state. 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.

VI. 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). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that 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 an Executive Order 14192 (90 FR 9065, February 6, 2025) regulatory action because this action is not significant 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 this action does not involve technical standards.

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 rule 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, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Dated: August 3, 2026.

James Macy,
Regional Administrator,
Region 7.

For the reasons stated in the preamble, the EPA proposes to amend 40 CFR part 52 as set forth below:

PART 52--APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq*.

Subpart Q-Iowa

2. In § 52.820, the table in paragraph (e) is amended by adding the entry "(58)" in numerical order to read as follows:

§ 52.820 Identification of plan.

* * * * *

(e) ***

EPA-APPROVED IOWA NONREGULATORY PROVISIONS

Name of nonregulatory SIP provision	**Applicable geographic or nonattainment area**	**State submittal date**	**EPA Approval date**	**Explanation**
* * * * * * *				
(58) Interstate Transport (Prongs 1 and 2) for the 2010 SO_2 NAAQS	Statewide	03/26/2024	**[Date of publication of final rule in the Federal Register]**, 91 FR **[Federal Register page where the document begins of the final rule]**	[EPA-R07-OAR-2026-5809; FRL-13519-01-R7]. This action addresses CAA elements: 110(a)(2)(D)(i)(I)—prongs 1 and 2.

[FR Doc. 2026-16570 Filed: 8/13/2026 8:45 am; Publication Date: 8/14/2026]