6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R05-OAR-2021-0451; FRL-9166-01-R5]

Air Plan Approval; Michigan and Wisconsin; Finding of Failure to Attain the 2010 Sulfur Dioxide Primary National Ambient Air Quality Standard for the Detroit and Rhinelander Nonattainment Areas

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to determine that the Detroit and Rhinelander sulfur dioxide (SO_2) nonattainment areas failed to attain the 2010 primary 1-hour SO_2 national ambient air quality standard (NAAQS or "standard") by the applicable attainment date of October 4, 2018. This proposed determination is based upon air quality modeling using actual and allowable emissions for the Detroit area and monitored air quality data from January 2015 to December 2017 for the Rhinelander area. If EPA finalizes these determinations as proposed, within one year after EPA publishes a final rule the States of Michigan and Wisconsin will be required to submit revisions to their State Implementation Plans (SIPs) that, among other elements, provide for expeditious attainment of the 2010 SO_2 standard. However, for the Rhinelander area, if EPA approves the recent revised SIP submission submitted by the State of Wisconsin, EPA is proposing

to treat that submission as satisfying the requirement to submit revisions to the SIP to address the failure to timely attain the 2010 SO_2 NAAQS.

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-2021-0451 at https://www.regulations.gov, or via email to blakley.pamela@epa.gov. For comments submitted at Regulations.gov, follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. For either manner of submission, EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit https://www2.epa.gov/dockets/commenting-epa-

dockets.

FOR FURTHER INFORMATION CONTACT: Melissa Sheffer, Meteorologist, Control Strategies Section, Air Programs Branch (AR-18J), Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, (312) 353-1027, sheffer.melissa@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 and facility closures due to COVID-19.

SUPPLEMENTARY INFORMATION:

I. Background.

A. The 2010 SO_2 NAAQS

Under section 109 of the Clean Air Act (CAA), EPA has established NAAQS for certain pervasive air pollutants (referred to as "criteria pollutants") and conducts periodic reviews of the NAAQS to determine whether they should be revised or whether new NAAQS should be established.

Under the CAA, EPA must establish a NAAQS for SO_2. SO_2 is primarily released to the atmosphere through the burning of fossil fuels by power plants and other industrial facilities. SO_2 is also emitted from industrial processes including metal extraction from ore and heavy equipment that burn fuel with a high sulfur content. Short-term exposure to SO_2 can damage the human respiratory system and increase breathing difficulties. Small children and people with respiratory conditions, such as asthma, are more sensitive to the effects of SO_2. Sulfur oxides at high concentrations can also react with compounds to form

small particulates that can penetrate deeply into the lungs and cause health problems.

EPA first established primary, health-based SO_2 standards in 1971 at 0.14 parts per million (ppm) over a 24-hour averaging period and 0.3 ppm over an annual averaging period (36 FR 8186, April 30, 1971). In June 2010, EPA revised the NAAQS for SO_2 to provide increased protection of public health, providing for revocation of the 1971 primary annual and 24-hour SO_2 standards for most areas of the country following area designations under the new NAAQS.[1] The 2010 NAAQS is 75 parts per billion (ppb) (equivalent to 0.075 ppm) over a 1-hour averaging period (75 FR 35520, June 22, 2010). A violation of the 2010 1-hour SO_2 NAAQS occurs when the annual 99th percentile of ambient daily maximum 1-hour average SO_2 concentrations, averaged over a 3-year period, exceeds 75 ppb.[2]

B. Designations, Classifications, and Attainment Dates for the 2010 SO_2 NAAQS

Following promulgation of any new or revised NAAQS, EPA is required by CAA section 107(d) to designate areas throughout the nation as attaining or not attaining the NAAQS. On August 5, 2013, EPA finalized its first round of designations for the 2010 primary SO_2 NAAQS (78 FR 47191). In the 2013 action, EPA designated 29 areas in 16 states as nonattainment for the 2010 SO_2 NAAQS, including the Detroit area in Michigan and the

[1] 40 CFR 50.4(e).
[2] 40 CFR 50.17.

Rhinelander area in Wisconsin.[3] EPA's initial round of designations for the 2010 SO_2 NAAQS, including the Detroit and Rhinelander areas, became effective on October 4, 2013. Pursuant to CAA sections 172(a)(2) and 192(a), the maximum attainment date for the Detroit and Rhinelander areas was October 4, 2018, five years after the effective date of the final action designating each area as nonattainment for the 2010 SO_2 NAAQS.

For a number of nonattainment areas, including the Detroit area, EPA published an action on March 18, 2016, effective April 18, 2016, finding that Michigan and other pertinent states had failed to submit the required SO_2 nonattainment plan by the submittal deadline (81 FR 14736). Under CAA section 110(c), the finding triggered a requirement that EPA promulgate a Federal implementation plan (FIP) within two years of the finding unless, by that time (a) the state had made the necessary complete submittal and (b) EPA had approved the submittal as meeting applicable requirements. Michigan submitted a complete nonattainment plan on May 31, 2016 and submitted associated final enforceable measures on June 30, 2016. However, on March 19, 2021, EPA partially approved and partially disapproved Michigan's SO_2 plan as submitted in 2016 (86 FR 14827). Therefore, the FIP clock was not stopped. EPA disapproved the attainment demonstration, in part because it relied on an invalidated rule (Michigan Administrative Code 336.1430) that

[3] For exact descriptions of the Detroit and Rhinelander areas, refer to 40 CFR 81.303.

was no longer enforceable. EPA also disapproved the plan for failing to meet the requirements for meeting reasonable further progress (RFP) toward attainment of the NAAQS, reasonably available control measures and reasonably available control technology (RACM/RACT), and contingency measures. To date, Michigan has not submitted an approvable plan for the Detroit area, and EPA is currently working on a FIP.

For the Rhinelander area, Wisconsin submitted a nonattainment plan on January 22, 2016, and supplemented it on July 18, 2016, and November 29, 2016. On March 23, 2021, EPA partially approved and partially disapproved Wisconsin's Rhinelander SO_2 plan as submitted and supplemented in 2016 (86 FR 15418). EPA disapproved the attainment demonstration for failing to comply with EPA's stack height regulations. Additionally, EPA disapproved the plan for failing to meet the requirements for meeting RFP toward attainment of the NAAQS, RACM/RACT, emission limitations and control measures as necessary to attain the NAAQS, and contingency measures. Under CAA section 110(c), the partial disapproval triggered a requirement that EPA promulgate a FIP within two years of the finding unless, by that time (a) the state had made the necessary complete submittal and (b) EPA had approved the submittal as meeting applicable requirements. On March 29, 2021, Wisconsin submitted a permit containing a more stringent emission limit for Ahlstrom-Munksjö's Rhinelander facility, the main SO_2 source in the area, along with supplemental information

in order to remedy the plan's deficiencies specified in EPA's March 23, 2021 rulemaking. EPA proposed to approve Wisconsin's revised plan for the Rhinelander SO_2 nonattainment area on July 22, 2021 (86 FR 38643).

On August 6, 2020, the Center for Biological Diversity, the Center for Environmental Health, and the Sierra Club filed a complaint in the United States District Court (amended October 29, 2020), alleging that EPA failed to perform certain non-discretionary duties in accordance with the CAA, including to make timely findings that the Detroit and Rhinelander areas attained the 2010 SO_2 NAAQS by the attainment date. Under court order, EPA must determine whether Detroit and Rhinelander areas have attained the SO_2 NAAQS by January 31, 2022. The court order provides that if a covered nonattainment area is redesignated to attainment before the applicable deadline for EPA's determination, then EPA's duty to make the determination for that area is automatically terminated. Therefore, EPA may not finalize this action if either area is redesignated to attainment of the 2010 SO_2 NAAQS before January 31, 2022.

II. Proposed Determinations and Consequences.

Section 179(c)(1) of the CAA requires EPA to determine whether a nonattainment area attained an applicable standard by the applicable attainment date based on the area's air quality as of the attainment date. In determining the attainment status of SO_2 nonattainment areas, EPA may consider ambient monitoring data, air quality dispersion modeling, and/or a demonstration

that the control strategy in the SIP has been fully implemented.[4]

Under EPA regulations in 40 CFR 50.17 and in accordance with 40 CFR part 50, appendix T, the 2010 1-hour annual SO_2 standard is met at a monitoring site when the design value is less than or equal to 75 ppb. Design values are calculated by computing the three-year average of the annual 99th percentile daily maximum 1-hour average concentrations.[5] When calculating 1-hour primary standard design values, the calculated design values are rounded to the nearest whole number or 1 ppb by convention. A SO_2 1-hour primary standard design value is valid if it encompasses three consecutive calendar years of complete monitoring data or modeling data.

A. Detroit Area Determination

The determination of failure to attain for the Detroit area was based on air quality dispersion modeling, using actual and allowable emissions from the most recent three complete calendar years, prior to the attainment date of October 4, 2018 (i.e., from 2015-2017).

As previously noted, EPA may consider air quality dispersion modeling in addition to monitoring data when determining the attainment status of SO_2 nonattainment areas. EPA's 2014 SO_2 Guidance states that "[i]f the EPA determines that the air quality monitors located in the affected area are

[4] EPA, Guidance for 1-Hour SO_2 Nonattainment Area SIP Submissions (April 2014) ("2014 SO_2 Guidance"), 49.

[5] As defined in 40 CFR part 50, appendix T, section 1(c), daily maximum 1-hour values refer to the maximum 1-hour SO_2 concentration values measured from midnight to midnight that are used in the NAAQS computations.

located in the area of maximum concentration, the EPA may be able to use the data from these monitors to make the determination of attainment without the use of air quality modeling data."[6] Although all the monitors in the Detroit area are showing values below the NAAQS, EPA may not use the monitoring data for this proposed determination of failure to attain because the modeling results show that the monitors are not in the area of maximum ambient SO_2 concentration. The modeling data show that SO_2 concentrations near the monitors are below the NAAQS while showing concentrations that violate the NAAQS at other modeling receptors in the Detroit area.

EPA's modeling requirements to support SIP attainment demonstrations are specified by regulation in appendix W of 40 CFR part 51 (*Guideline on Air Quality Models)*, as referenced by 40 CFR 51.112. Additionally, specific SO_2 modeling guidance can be found in EPA's document titled, "SO_2 NAAQS Designations Modeling Technical Assistance Document" (Modeling TAD), which was most recently updated in August 2016. EPA conducted a modeling demonstration, based on guidelines from appendix W and the Modeling TAD, that contained an assessment of the air quality impacts from the following sources: U.S. Steel Ecorse, U.S. Steel Zug Island, EES Coke, DTE Energy (DTE) River Rouge, DTE Trenton Channel, Carmeuse Lime, DTE Monroe, Severstal Steel, Dearborn Industrial Generation (DIG), and Marathon Refinery.

1. Model Selection and Modeling Components

[6] Id., 50.

EPA's Modeling TAD notes that for area designations under the 2010 SO_2 NAAQS, the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) modeling system should be used, unless use of an alternative model can be justified. In some instances, the recommended model may be a model other than AERMOD, such as the BLP model for buoyant line sources. The AERMOD modeling system contains the following components: AERMOD (the dispersion model), AERMAP (the terrain processor for AERMOD), AERMET (the meteorological data processor for AERMOD), BPIPPRIME (the building input processor), AERMINUTE (a pre-processor to AERMET incorporating 1-minute automated surface observation system (ASOS) wind data), AERSURFACE (the surface characteristics processor for AERMET), and AERSCREEN (a screening version of AERMOD).

EPA conducted its air dispersion modeling demonstration with AERMOD, the preferred model for this application. EPA used version 19191 of AERMOD, which was the most recent version at that time.

2. Modeling Parameter: Rural or Urban Dispersion

EPA's recommended procedure for characterizing an area by prevalent land use is based on evaluating the dispersion environment within 3 kilometers of the facility. According to EPA's modeling guidelines contained in documents such as the Modeling TAD, rural dispersion coefficients are to be used in the dispersion modeling analysis if more than 50% of the area

within a 3 kilometer radius of the facility is classified as rural. Conversely, if more than 50% of the area is urban, urban dispersion coefficients should be used in the modeling analysis.

Although EPA's modeling guidelines recommend that areas such as Detroit should be modeled using urban dispersion coefficients, it was found that using urban dispersion coefficients caused the model to overpredict monitored concentrations by 2-3 times due to emissions from the tall stacks becoming trapped in the nighttime boundary layer. Section 5.1 of the AERMOD Implementation Guide[7] describes how prior to AERMOD version 15181, the application of the urban option on tall stacks in small to moderate size urban areas may have limited the plume height resulting in high concentrations. While this issue was mitigated beginning with bug fixes in version 15181 of AERMOD, a model to monitor comparison conducted by EPA determined that modeled concentrations at the monitor receptor locations correlated with monitoring concentrations when the tall stacks were modeled with the rural dispersion option instead of urban. In addition, peak monitored concentrations occur during the daytime. When modeling the tall stacks with the rural dispersion option the peak modeled concentrations occurred during the daytime hours, while using the urban option resulted in peak modeled concentrations during

[7] U.S. Environmental Protection Agency, 2021. AERMOD Implementation Guide, section 5.1. Publication No. 454-B-21-002. Office of Air Quality Planning and Standards, Research Triangle Park, NC. https://gaftp.epa.gov/Air/aqmg/SCRAM/models/preferred/aermod/aermod_implementation_guide.pdf

the nighttime hours. Therefore, the rural dispersion option was used for the tall stacks at EES Coke, DTE River Rouge, DTE Trenton Channel, and DTE Monroe, and the urban dispersion option was used for the remaining modeled sources with a population of 1,000,000.

3. Modeling Parameter: Area of Analysis (Receptor Grid)

EPA believes that a reasonable first step towards characterization of air quality in the Detroit area is to determine the extent of the area of analysis, i.e., receptor grid. Considerations presented in the Modeling TAD include but are not limited to: the location of the SO_2 emission sources or facilities considered for modeling; the extent of significant concentration gradients of nearby sources; and sufficient receptor coverage and density to adequately capture and resolve the model predicted maximum SO_2 concentrations.

For the Detroit area modeling analysis, a uniform Cartesian receptor grid was used with receptor spacing of 100 meters throughout the modeled domain. The receptor network contained 5,432 receptors and covered 12 kilometers by 12 kilometers area over the city of Detroit. EPA determined that this was the appropriate distance in order to adequately characterize air quality from the sources in the Detroit area which may have a potential impact in the area of analysis where maximum concentrations of SO_2 are expected.

4. Modeling Parameter: Source Characterization

EPA characterized the sources within the area of analysis

in accordance with practices outlined as acceptable in the Modeling TAD. Specifically, EPA used actual stack heights in conjunction with actual or allowable emissions. EPA also adequately characterized the sources' building layouts and locations, as well as the stack parameters, e.g., exit temperature, exit velocity, location, and diameter.

5. Modeling Parameter: Emissions

Guidance on modeling SO_2 actual emissions is provided in section 5.2 of EPA's Modeling TSD. EPA believes that continuous emissions monitoring systems (CEMS) data provide acceptable historical emissions information when it is available and that these data are available for many electric generating units. The Modeling TAD also provides for the flexibility of using allowable emissions.

EPA ran AERMOD using 2015-2017 actual average CEMS emissions data for DTE River Rouge and Trenton Channel, and 2016 actual emissions data for U.S. Steel, the source with the most significant contribution to the maximum NAAQS violations in the area, from Michigan's annual emissions database. Table 1 shows the actual emissions used for this analysis.

Table 1 - Actual SO_2 Emissions used in the Modeling Analysis

Facility Name	SO_2 Emissions(tons per year)
DTE River Rouge	4,383
DTE Trenton Channel	11,303
U.S. Steel	1,480

For EES Coke, Carmeuse Lime, DTE Monroe, Severstal Steel, DIG, and Marathon Refinery in the area of analysis, EPA modeled the facilities using the most recent federally enforceable

allowable limits for SO_2. The facilities in EPA's area of analysis and their associated allowable rates are summarized in Table 2 below.

Table 2 – Allowable SO_2 Emissions used in the Modeling Analysis

Facility Name	SO_2 Allowable Emissions(tons per year)
EES Coke	4,067
Carmeuse Lime	2,059
DTE Monroe	13,403
Severstal Steel	2,119
DIG	2,335
Marathon Refinery	401

6. Modeling Parameter: Meteorology and Surface Characteristics

As noted in the Modeling TAD, the selection of meteorological data should be based on spatial and climatological (temporal) representativeness. The representativeness of the data are based on: 1) the proximity of the meteorological monitoring site to the area under consideration, 2) the complexity of terrain, 3) the exposure of the meteorological site, and 4) the period of time during which data are collected. Sources of meteorological data include National Weather Service stations, site-specific or onsite data, and other sources such as universities, the Federal Aviation Administration, and military stations.

EPA used the Detroit Metropolitan Wayne County Airport's meteorological surface data and the White Lake meteorological upper air data for the years 2013-2017 for modeling the Detroit area. This meteorological data set was processed by Michigan and obtained from its website.

Meteorological data from the above surface and upper air stations were used in generating AERMOD-ready files with the AERMET processor. The output meteorological data created by the AERMET processor is suitable for being applied with AERMOD input files for AERMOD modeling runs. EPA followed the methodology and settings presented in appendix W in the processing of the raw meteorological data into an AERMOD-ready format and used AERSURFACE to best represent surface characteristics.

7. Modeling Parameter: Geography and Terrain

The terrain in the area of analysis is best described as generally flat. To account for these terrain changes, the AERMAP terrain program within AERMOD was used to specify terrain elevations for all the receptors. The source of the elevation data incorporated into the model was the U.S. Geological Survey National Elevation Database.

8. Modeling Parameter: Background Concentrations

The Modeling TAD offers two mechanisms for characterizing background concentrations of SO_2 that are ultimately added to the modeled design values: 1) a "first tier" approach, based on monitored design values, or 2) a temporally varying approach, based on the 99th percentile monitored concentrations by hour of day and season or month. For the Detroit area modeling analysis, hourly SO_2 data from 2015-2017 at the Allen Park monitor, which is approximately 17 kilometers southwest of Detroit, along with Allen Park wind data was used to generate Season/Hour-of-Day concentrations. Monitored concentrations

associated with wind directions between and including 40 to 205 degrees were excluded to avoid concentrations associated with sources explicitly modeled in the demonstration. The Season/Hour-of-Day background concentrations for this area of analysis were determined by EPA to be between 0.9 and 13.2 ppb, and these values were incorporated into the final AERMOD results.

8. Summary of Results and Proposed Determination

EPA's modeling analysis indicated that the highest predicted 3-year average 99th percentile 1-hour average concentration within the chosen modeling domain is 139 ppb or 363.3 micrograms per cubic meter. The AERMOD analysis included an output unit factor of 381,680 to convert the model results from grams per second to ppb. This modeled concentration included the background concentration of SO_2, and is based on actual and allowable emissions from the facilities in the Detroit area.

For an area to attain the 2010 SO_2 NAAQS by the October 4, 2018 attainment date, the design value based upon modeled actual and allowable air quality data from 2015-2017 at the area of maximum ambient SO_2 concentration must be equal to or less than 75 ppb for the 1-hour standard. EPA's modeling results show that the maximum modeled design concentration in the Detroit area exceeds 75 ppb. Therefore, based on modeled actual and allowable emissions for the 2015-2017 period, EPA is proposing to determine that the Detroit area failed to attain the 2010 1-

hour SO_2 standard by the October 4, 2018 attainment date.

B. *Rhinelander Area Determination*

The determination of failure to attain for the Rhinelander area was based upon the most recent three complete calendar years, prior to the attainment date of October 4, 2018, of complete, quality-assured measured data gathered at an established state and local air monitoring station (SLAMS) in the nonattainment area and entered into EPA's Air Quality System (AQS) database.[8] A year is considered complete when all four quarters are complete, and a quarter is complete when at least 75 percent of the sampling days are complete. A sampling day is considered complete if 75 percent of the hourly concentration values are reported; this includes data affected by exceptional events that have been approved for exclusion by the Administrator.[9] Data from ambient air monitors operated by state and local agencies in compliance with EPA monitoring requirements must be submitted to AQS.[10] Monitoring agencies annually certify that these data are accurate to the best of their knowledge.[11] All data are reviewed to determine the area's air quality status in accordance with 40 CFR part 50, appendix T.

With regard to the use of monitoring data for determining the attainment status of SO_2 nonattainment areas, EPA's 2014 SO_2 Guidance specifically notes that "[i]f the EPA determines that

[8] AQS is EPA's repository of ambient air quality data.
[9] *See* 40 CFR part 50, appendix T, sections 1(c), 3(b), 4(c), and 5(a).
[10] 40 CFR 58.16.
[11] 40 CFR 58.15.

the air quality monitors located in the affected area are located in the area of maximum concentration, the EPA may be able to use the data from these monitors to make the determination of attainment without the use of air quality modeling data."[12] This language might be read to suggest that EPA must always assess whether the air quality monitors in the affected area are located in the area of maximum concentration prior to using monitoring data to determine an SO_2 nonattainment area's attainment status. However, this language was intended to refer to a situation where EPA is considering making a determination that the area has attained the NAAQS based on a finding that all of the monitoring sites within the affected area had an attaining design value for the relevant period. As described in section II.B of this action, in this instance, the monitoring site in the Rhinelander area did not have attaining design values for the relevant period. Consequently, even if the monitoring sites are not located in the area of maximum concentration, any monitors that would be located in the area of maximum concentration could not record concentrations lower than those recorded at the existing monitor at the Rhinelander site. Accordingly, since the Rhinelander Tower monitor design value for the 2015-2017 period was above the NAAQS, it is not necessary to consider whether the monitor is located in the area of maximum concentration in order to determine that the Rhinelander area did not attain the 2010 SO_2 NAAQS by the October

[12] Id., 50.

4, 2018 attainment date.

1. Monitoring Network Considerations

Section 110(a)(2)(B)(i) of the CAA requires states to establish and operate air monitoring networks to compile data on ambient air quality for all criteria pollutants. EPA's monitoring requirements are specified by regulation in 40 CFR part 58. These requirements are applicable to state, and where delegated, local air monitoring agencies that operate criteria pollutant monitors.

In section 4.4 of appendix D to 40 CFR part 58, EPA specifies minimum monitoring requirements for SO_2 to operate at SLAMS. SLAMS produce data that are eligible for comparison with the NAAQS, and therefore, the monitor must be an approved Federal reference method (FRM), Federal equivalent method (FEM), or approved regional method (ARM) monitor.

The minimum number of required SO_2 SLAMS is described in sections 4.4.2 and 4.4.3 of appendix D to 40 CFR part 58. According to section 4.4.2, the minimum number of required SO_2 monitoring sites is determined by the population weighted emissions index for each state's core based statistical area. Section 4.4.3 describes additional monitors that may be required by an EPA regional administrator.

Under 40 CFR 58.10, states are required to submit annual monitoring network plans (AMNP) for ambient air monitoring networks for approval by EPA. Within the Rhinelander area, Wisconsin is responsible for ensuring that the area meets air

quality monitoring requirements. Wisconsin submits annual monitoring network plans to EPA that describe the various monitoring sites that it operates.[13] Each AMNP discusses the status of the air monitoring network as required under 40 CFR 58.10 and addresses the operation and maintenance of the air monitoring network in the previous year. EPA regularly reviews these AMNPs for compliance with the applicable reporting requirements in 40 CFR part 58.[14]

EPA also conducts regular "technical systems audits" (TSAs) during which EPA reviews and inspects ambient air monitoring programs to assess compliance with applicable regulations concerning the collection, analysis, validation, and reporting of ambient air quality data.[15] As part of its 2018 TSA of Wisconsin, EPA required Wisconsin to prepare and submit a corrective action plan, and EPA accepted Wisconsin's TSA finding response forms in 2019.[16]

During the 2015-2017 data period, Wisconsin operated one SO_2 SLAMS in the Rhinelander area: Rhinelander Tower monitor (AQS ID 55-085-0996). The Rhinelander Tower monitor site is located at 434 High Street under the Rhinelander municipal water tower.

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[13] *See*, e.g., "Wisconsin Department of Natural Resources 2018 Air Monitoring Network Plan," which is included in the docket for this action.
[14] *See*, e.g., letter dated September 1, 2017 from Edward Nam, Director, Air and Radiation Division, EPA Region V, to Gail Good, Director, Bureau of Air Management, Wisconsin Department of Natural Resources, which is included in the docket for this action.
[15] *See* 40 CFR part 58, appendix A, section 2.5.
[16] *See* letter dated June 24, 2019 from Michael Compher, Chief, Air Monitoring and Analysis Section, Air and Radiation Division, EPA Region V, to Katie Praedel, Chief, Air Monitoring Section, Bureau of Air Management, Wisconsin Department of Natural Resources, which is included in the docket for this action.

The primary monitor at this site is an FEM monitor.

Based on EPA's review of Wisconsin's AMNPs for the years 2016-2018[17] and the 2018 TSA of Wisconsin's monitoring program, EPA proposes to find that the monitoring network in the Rhinelander area is adequate for the purpose of collecting ambient SO_2 concentration data for use in determining whether the nonattainment area attained the 2010 SO_2 NAAQS by the October 4, 2018 attainment date.

2. SO_2 Data Considerations

Under 40 CFR 58.15, monitoring agencies must certify, on an annual basis, data collected at all SLAMS and at all FRM, FEM, and ARM special purpose monitor stations that meet EPA quality assurance requirements. In doing so, monitoring agencies must certify that the previous year of ambient concentration and quality assurance data are completely submitted to AQS and that the ambient concentration data are accurate to the best of their knowledge. Wisconsin annually certifies that the data it submits to AQS are quality assured, including data collected by Wisconsin at the monitoring site in the Rhinelander area.

For the Rhinelander area, for reasons discussed in section I.B of this action, the applicable attainment date was October 4, 2018. In accordance with appendix T to 40 CFR part 50, determinations of SO_2 NAAQS compliance are based on three consecutive calendar years of data. To determine the air quality as of the attainment date in the Rhinelander area, EPA

[17] Wisconsin's ANPs for 2016-2018 address the operation and maintenance of its air monitoring network for 2015-2017.

must review the data collected during the three calendar years immediately preceding the attainment date, or January 1, 2015-December 31, 2017.

The SO_2 data for the Rhinelander area from January 1, 2015-December 31, 2017, have been certified by Wisconsin. EPA has also evaluated the completeness of these data in accordance with the requirements of 40 CFR part 50, appendix T. The data collected by Wisconsin meet the quarterly completeness criterion for all 12 quarters in the three calendar years preceding the attainment date at the Rhinelander Tower SO_2 monitoring site.

3. Rhinelander SO_2 Data and Proposed Determination

The 1-hour SO_2 design values at the Rhinelander Tower monitor for the 2015-2017 period are presented in Table 3. Table 3 demonstrates that the 1-hour SO_2 design values for the 2015-2017 period are greater than 75 ppb at the eligible monitoring site.

Table 3 – 2015-2017 1-Hour Design Values for the Rhinelander Area

Site (AQS ID)	Annual 99th Percentile Daily Maximum 1-hour Average			1-hour Design Value (ppb)	Design Value Valid?
	2015	2016	2017		
Rhinelander Tower (55-085-0996)	156	129	38	108	Yes
Source: EPA, Design Value Report, August 26, 2020.					

The data in Table 3 demonstrates that the monitoring site in the Rhinelander area failed to attain the 2010 1-hour SO_2 NAAQS by the applicable attainment date of October 4, 2018. The 3-year design value for the Rhinelander Tower monitor was deemed valid due to meeting the criteria in 40 CFR part 50, appendix T,

section 3(c)(i), which requires that "at least 75 percent of the days in each quarter of each of three consecutive years have at least one reported hourly value, and the design value calculated according to the procedures specified in section 5 is above the level of the primary 1-hour standard."

For an area to attain the 2010 SO_2 NAAQS by the October 4, 2018 attainment date, the design value based upon monitored air quality data from 2015-2017 at each eligible monitoring site must be equal to or less than 75 ppb for the 1-hour standard. Table 3 shows that the design value at the monitoring site in the Rhinelander area exceeds 75 ppb. Therefore, based on quality-assured and certified data for the 2015-2017 data period, EPA is proposing to determine that the Rhinelander area failed to attain the 2010 1-hour SO_2 standard by the October 4, 2018 attainment date.

C. Consequences for SO_2 Nonattainment Areas Failing to Attain Standards by Attainment Dates

The consequences for SO_2 nonattainment areas for failing to attain the standards by the applicable attainment date are set forth in CAA section 179(d). Under section 179(d), a state must submit a SIP revision for the area meeting the requirements of CAA sections 110 and 172, the latter of which requires, among other elements, a demonstration of attainment and reasonable further progress and contingency measures. In addition, under CAA section 179(d)(2), the SIP revision must include such additional measures as EPA may reasonably prescribe, including

all measures that can be feasibly implemented in the area in light of technological achievability, costs, and any non-air quality and other air quality-related health and environmental impacts. The state is required to submit the SIP revision within one year after EPA publishes a final action in the *Federal Register* determining that the nonattainment area failed to attain the SO_2 NAAQS.

On March 19, 2021 (86 FR 14827), and March 23, 2021 (86 FR 15418), EPA published actions partially disapproving the 2010 SO_2 attainment plans for the Detroit and Rhinelander areas, respectively, as submitted and supplemented in 2016. Although final findings of failure to attain will not eliminate each state's obligation to address the disapproved elements of its prior plan submittal, EPA anticipates that the submission of a new, approvable attainment plan in response to these findings would also satisfy these obligations for Michigan and Wisconsin.

On July 22, 2021 (86 FR 38643), EPA proposed to approve Wisconsin's revised plan, submitted to EPA on March 29, 2021. If EPA takes final action to approve that revised SIP submission from Wisconsin, EPA is proposing to find that the State has also satisfied the requirement to submit a SIP revision to address the finding, if finalized, that the area failed to timely attain the 2010 SO_2 NAAQS.

Under CAA sections 179(d)(3) and 172(a)(2), the new attainment date for each nonattainment area is the date by which attainment can be achieved as expeditiously as practicable, but

no later than five years after EPA publishes a final action in the *Federal Register* determining that the nonattainment area failed to attain the SO_2 NAAQS. In the meantime, EPA's FIP obligations for both the Detroit and Rhinelander areas remain in force, and this finding, if finalized, would not negate EPA's FIP deadlines. For the Detroit area, the statutory deadline for EPA to promulgate a FIP has passed, and EPA is actively working on a FIP.

In addition to triggering requirements for a new SIP submittal, a final determination that a nonattainment area failed to attain the NAAQS by the attainment date would trigger the implementation of contingency measures adopted under 172(c)(9).

III. What Action is EPA Taking?

EPA is proposing under CAA section 179(c)(1) to determine that the Detroit and Rhinelander areas failed to attain the 2010 1-hour SO_2 standard by the applicable attainment date of October 4, 2018. If finalized as proposed, Michigan and Wisconsin would be required under CAA section 179(d) to submit revisions to the SIP for the Detroit and Rhinelander SO_2 nonattainment areas, respectively. The required SIP revision for each area must, among other elements, demonstrate expeditious attainment of the standards within the time period prescribed by CAA section 179(d). If finalized as proposed, the SIP revisions required under CAA section 179(d) would be due for submittal to EPA no later than one year after the publication date of the final

action. However, for the Rhinelander area, if EPA approves the recently revised SIP submission submitted by the State of Wisconsin, EPA is proposing to treat that submission as satisfying the requirement to submit revisions to the SIP to address the failure to timely attain the 2010 SO_2 NAAQS.

EPA is soliciting public comments on the issues discussed in this action. EPA will accept comments from the public on this proposal for the next 30 days and will consider these comments before taking final action.

IV. Statutory and Executive Order Reviews.

Additional information about these statutes and Executive Orders can be found at https://www2.epa.gov/laws-regulations/laws-and-executive-orders.

A. Executive Order 12866: Regulatory Planning and Review, and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action and therefore was not submitted to the Office of Management and Budget (OMB) for review.

B. Paperwork Reduction Act (PRA)

This action does not impose an information collection burden under the provisions of the PRA because it does not contain any information collection activities.

C. Regulatory Flexibility Act (RFA)

EPA certifies that this action will not have a significant economic impact on a substantial number of small entities under

the RFA. This action will not impose any requirements on small entities. This proposed action, if finalized, would require the State to adopt and submit SIP revisions to satisfy CAA requirements and would not itself directly regulate any small entities.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain any unfunded mandate of $100 million or more, as described in UMRA (2 U.S.C. 1531- 1538) and does not significantly or uniquely affect small governments. This action itself imposes no enforceable duty on any state, local, or tribal governments, or the private sector. This action proposes to determine that the Detroit and Rhinelander SO_2 nonattainment areas failed to attain the NAAQS by the applicable attainment dates. If finalized, this determination would trigger existing statutory timeframes for the State to submit SIP revisions. Such a determination in and of itself does not impose any Federal intergovernmental mandate.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will 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.

F. Executive Order 13175, Consultation and Coordination With Indian Tribal Governments

This action does not have tribal implications as specified

in Executive Order 13175. The proposed finding of failure to attain the SO_2 NAAQS does not apply to tribal areas, and the proposed rule would not impose a burden on Indian reservation lands or other areas where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction within the Detroit and Rhinelander SO_2 nonattainment areas. Thus, this proposed 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.

G. Executive Order 13045, Protection of Children From Environmental Health Risks and Safety Risks

EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that EPA has reason to believe may disproportionately affect children, per the definition of "covered regulatory action" in section 2-202 of the Executive order. This proposed action is not subject to Executive Order 13045 because the effect of this proposed action, if finalized, would be to trigger additional planning requirements under the CAA. This proposed action does not establish an environmental standard intended to mitigate health or safety risks.

H. Executive Order 13211, Actions That Significantly Affect Energy Supply, Distribution, or Use

This proposed rule is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act (NTTAA)

This rulemaking does not involve technical standards.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

EPA believes that this action does not have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994). The effect of this proposed action, if finalized, would be to trigger additional planning requirements under the CAA.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Sulfur oxides.

Dated: October 20, 2021.

Cheryl Newton,
Acting Regional Administrator, Region 5.

[FR Doc. 2021-23274 Filed: 10/26/2021 8:45 am; Publication Date: 10/27/2021]