# Sulfur Dioxide Data Requirements Rule

# 2026 Annual Review


**Iowa Department of Natural Resources**
**Environmental Services Division**
**Air Quality Bureau**
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# Executive Summary

The Iowa Department of Natural Resources (DNR) prepared this stand-alone report to satisfy the annual reporting obligations of the *Data Requirements Rule* [DRR] *for the 2010 1-Hour Sulfur Dioxide ($SO_2$) Primary National Ambient Air Quality Standard (NAAQS)*. The DRR, promulgated by the U.S. Environmental Protection Agency (EPA) on August 21, 2015 (80 FR 51052), mandates that air agencies document in a report due July 1 each year the recent annual $SO_2$ emissions of sources in each area where modeling of actual emissions served as the basis for designating that area attainment. The air agency must also provide a recommendation regarding whether additional modeling is needed to determine if each such area continues to meet the 2010 1-hour $SO_2$ NAAQS.

This is the tenth annual report for the DRR prepared by the DNR. The areas in Iowa that must be evaluated are Louisa County and Pottawattamie County. The DRR-listed source in Louisa County is MidAmerican Energy Company's (MidAmerican) Louisa Generating Station (LGS). The DRR-listed source in Pottawattamie County is MidAmerican's Walter Scott Jr. Energy Center (WSEC).

Based on documented reductions in annual $SO_2$ emissions, the DNR concludes that additional modeling is not needed to determine that Louisa County and Pottawattamie County both continue to attain the 2010 1-hour $SO_2$ NAAQS.

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# 1. Introduction

On August 21, 2015 (80 FR 51052), the U.S. Environmental Protection Agency (EPA) published the *Data Requirements Rule for the 2010 1-Hour Sulfur Dioxide ($SO_2$) Primary National Ambient Air Quality Standard (NAAQS)*. This rule, referred to as the Data Requirements Rule (DRR), includes provisions in 40 CFR 51.1205(b) that require the air agency to submit a report to EPA documenting recent $SO_2$ emissions in areas where modeling of actual $SO_2$ emissions served as the basis for designating the area attainment for the 75 parts per billion (ppb) 2010 1-hour $SO_2$ NAAQS (75 FR 35520, June, 22, 2010). The report must include an assessment of the cause of any emissions increases from the previous year and a recommendation regarding whether additional modeling is needed to characterize air quality to determine whether an area meets or does not meet the 2010 1-hour $SO_2$ NAAQS. The first such report is due by July 1 of the calendar year after the effective date of an area's initial designation. Thereafter, the report must be submitted annually, by July 1 of each year. The ongoing requirements do not sunset, but an area becomes exempt if the state submits, and EPA approves, a new dispersion modeling analysis that meets the conditions of either 40 CFR 51.1205(b)(2) or 51.1205(c).

## 1.1. Affected Areas

This stand-alone report is the tenth report prepared by the Iowa Department of Natural Resources (DNR) pursuant to the ongoing data review provisions of the DRR. There are two areas in Iowa that must be addressed at this time, Louisa County and Pottawattamie County, whose locations are indicated in Figure 1-1. These two counties were among those designated during the third round of $SO_2$ designations (83 FR 1098, January 9, 2018), and they each contain one facility that was identified by the DNR pursuant to 40 CFR 51.1203(a) as a source that was not located in a nonattainment area and had actual annual $SO_2$ emissions of 2,000 tons or more. The applicable source in Louisa County is MidAmerican Energy Company's (MidAmerican) Louisa Generating Station (LGS). In Pottawattamie County, the applicable source is MidAmerican's Walter Scott Jr. Energy Center (WSEC). The dispersion modeling conducted by the DNR that supported the attainment designations for these two areas was based, in part, on the use of actual emissions.

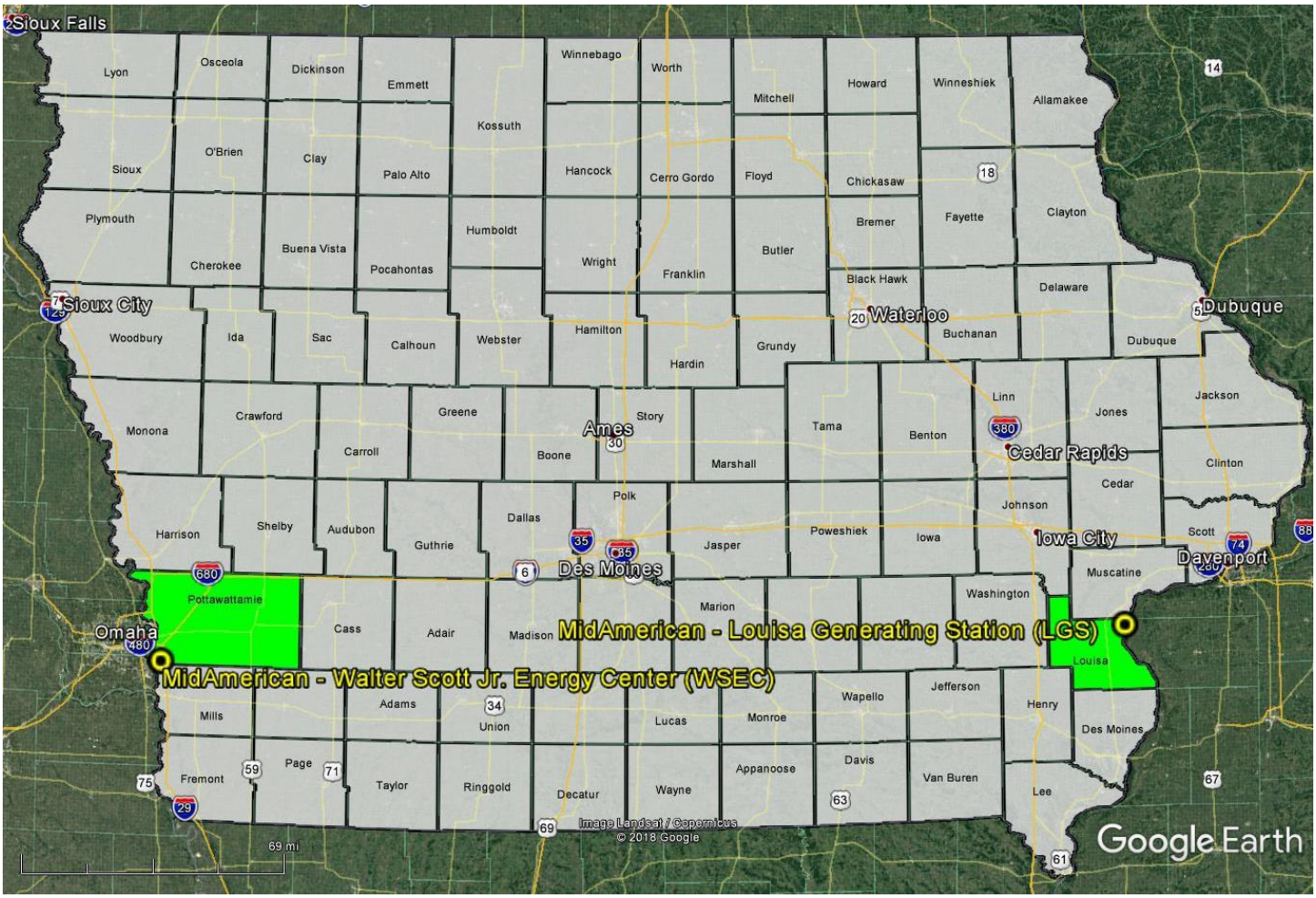



**Figure 1-1. Locations of Louisa and Pottawattamie Counties and their DRR-listed source.**

### 1.2. Unclassifiable Areas

The DNR also relied on dispersion modeling that used actual emissions to recommend an attainment designation for Linn County during the third round of designations for the 2010 1-hour $SO_2$ NAAQS. However, EPA finalized a designation of unclassifiable for Linn County, and thus, the DRR's ongoing data review provisions do not apply to that area. Although Woodbury County is also currently designated unclassifiable for the 1-hour $SO_2$ NAAQS, the ongoing data review provisions of the DRR will not apply should EPA act on the Governor's January 5, 2017, request to redesignate Woodbury County to attainment. This is because the modeling supporting that request is based on federally enforceable maximum permitted allowable emission limits, in accordance with 40 CFR 51.1205(c).

### 1.3. Report History and Exemptions

The sources in Iowa requiring review pursuant to the DRR have remained the same since 2019, but the DNR's first DRR report was completed in 2017. The sources subject to evaluation at that time were Interstate Power and Light's (IPL) Burlington Generating Station (BGS) in Des Moines County and IPL's Ottumwa Generating Station (OGS) in Wapello County. They remained the only sources/areas subject to review for the second DRR report, submitted in 2018.

The 2018 report, however, differed significantly from the 2017 review because it contained new dispersion modeling results for both BGS/Des Moines County and OGS/Wapello County that exempted those sources/areas from future DRR reports. The 2018 report describes the exemption criteria and associated modeling in detail, includes a historical review of the DRR, identifies all the DRR-listed sources in Iowa, and summarizes the first three[1] rounds of designations for the 2010 1-hour $SO_2$ NAAQS. All previous DRR reports are available on the DNR's Air Quality Implementation Plans website.[2]

[1] EPA published a fourth, and final, round of initial designations for the 2010 1-hour $SO_2$ NAAQS in the Federal Register on March 26, 2021 (86 FR 16055; supplemented April 14, 2021, 86 FR 19576). The fourth round involved areas using new ambient air monitoring to characterize $SO_2$ concentrations around DRR sources, and any other remaining undesignated areas. There were no such areas in Iowa. EPA completed the initial designations process for Iowa during the third round of 1-hour $SO_2$ designations.

[2] On the Air Quality Implementation Plans page, the DRR annual reports are located within the "Designation Recommendations" section, under (and near the bottom of) the "2010 SO2 (Includes Muscatine 1-hour SO2 Nonattainment Area)" subsection.

## 2. Louisa County Review

MidAmerican's LGS (facility ID 58-07-001) is the only source in Louisa County meeting the applicability requirements of the DRR. It was identified by the DNR, in a letter to EPA dated December 15, 2015, as a source that was not located in a nonattainment area and whose most recent actual annual $SO_2$ emissions were 2,000 tons or more. At that time, the 2014 annual emissions data were the most recent available, and LGS's reported annual $SO_2$ emissions for 2014 were 8,783 tons.

LGS is an electric generating facility (power plant) with one coal-fired boiler with a maximum rated capacity of 8,000 MMBtu/hr. According to the Energy Information Agency's (EIA) 2018 Form EIA-860 data, LGS serves a generator with a nameplate capacity of 811.9 megawatts (MW) that began operating in 1983. The location of LGS is indicated in Figure 2-1.

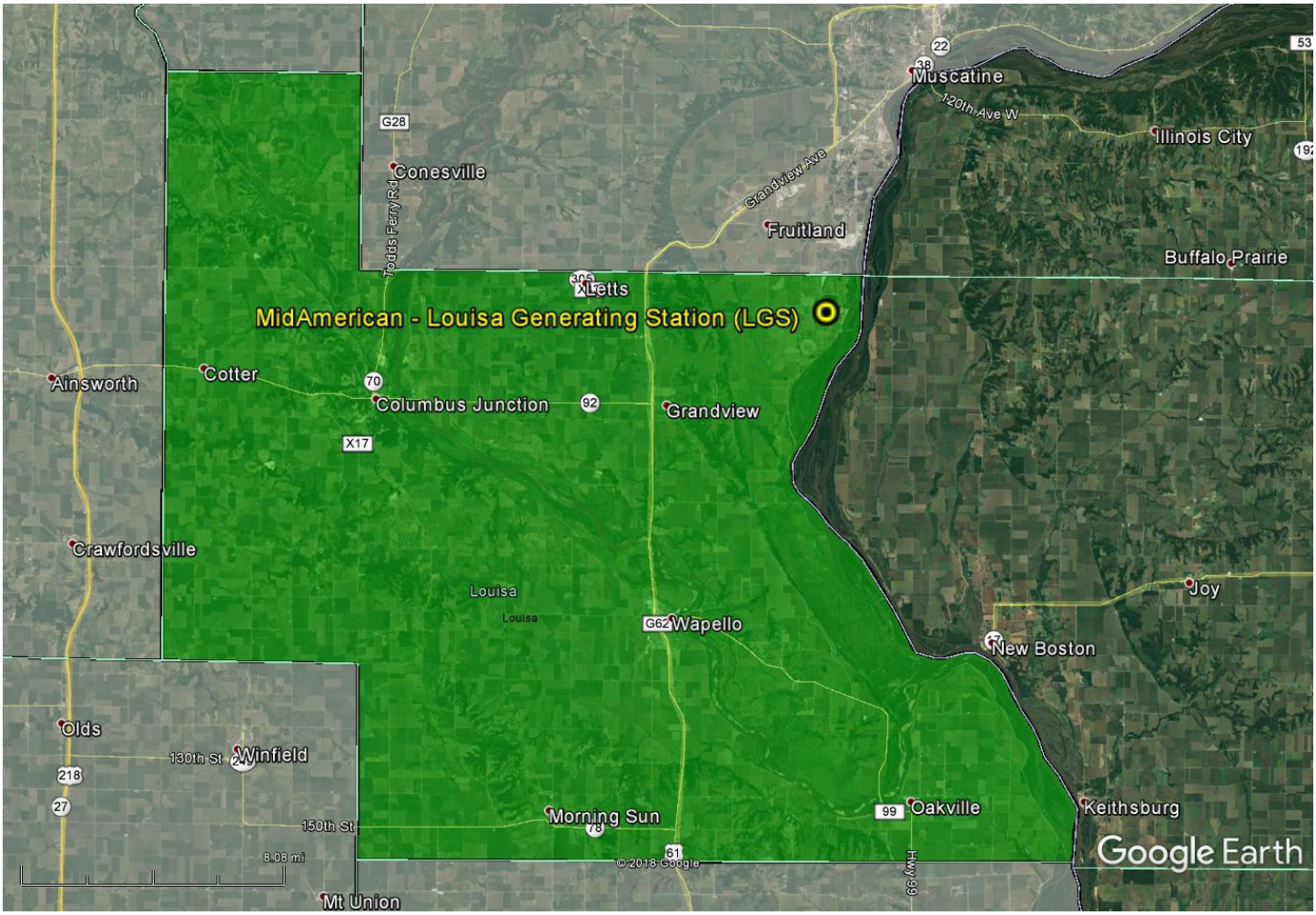



**Figure 2-1. Location of MidAmerican's LGS.**

The largest $SO_2$ source at LGS is the coal-fired boiler. Two auxiliary boilers are also potential $SO_2$ sources, but under normal operation they are fired by natural gas and emit relatively little $SO_2$. The facility's emergency generator is an intermittent source that was excluded from the modeling analysis that supported the attainment designation. Its exclusion was justified pursuant to Section 5.5 of EPA's draft "*$SO_2$ NAAQS Designations Modeling Technical Assistance Document"* (referred to as the "Modeling TAD," most recently updated August 2016). A detailed description of the modeling analysis that supported the attainment designation for Louisa County is available in the DNR's revised technical support document (TSD)[3] for the third round of 1-hour $SO_2$ designations.

[3] *2010 1-Hour Sulfur Dioxide ($SO_2$) Standard, Round 3 Designations Recommendations and Data Requirements Rule, Technical Support Document*, Iowa DNR, dated December 19, 2016 (revised 4/3/2017).

As described in more detail in that TSD, the $SO_2$ emissions from facilities within 10 km of LGS were evaluated to identify additional sources to model. Three facilities within the Muscatine 1-hour $SO_2$ nonattainment area were included in the modeling analysis as a result. Those facilities are located in Muscatine County and include Grain Processing Corporation (GPC, facility ID 70-01-004), Muscatine Power and Water (MPW, facility ID 70-01-011), and Bayer CropScience LP[4] (Bayer, facility ID 70-01-008), as shown in Figure 2-2. No additional relevant $SO_2$ sources were found by extending the search to areas within 10-20 km of LGS.

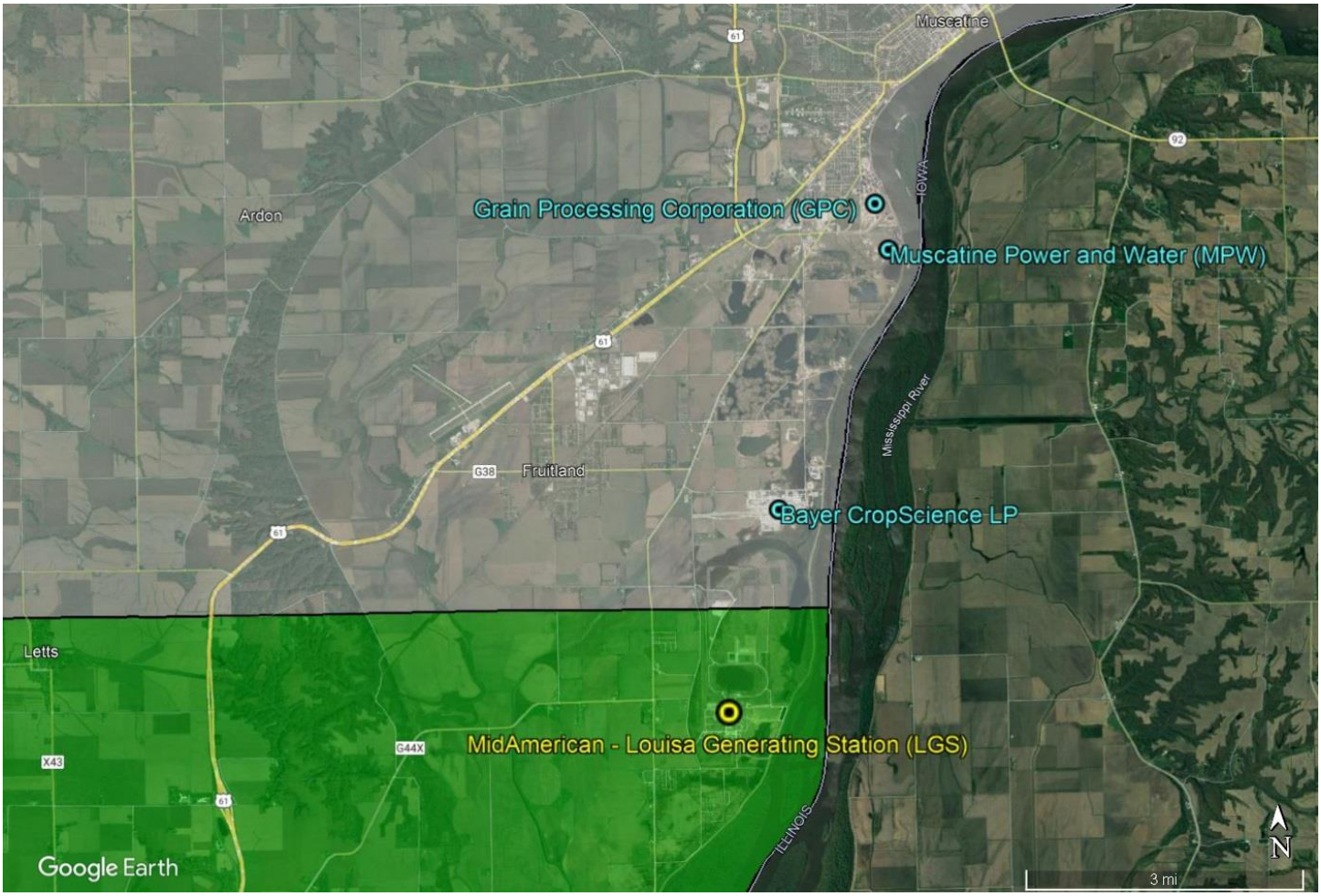



**Figure 2-2. Location of GPC, MPW, and Bayer, in relation to LGS.**

The facilities and their sources included in the modeling analysis that supported the attainment designation for Louisa County were the same as those included in the modeled attainment demonstration for the Muscatine 1-hour $SO_2$ nonattainment state implementation plan (SIP) revision.[5] Additionally, the modeling for Louisa County utilized the same stack parameters and, with the exception of one emission point, the same federally enforceable maximum permitted allowable emission limits used in the Muscatine 1-hour $SO_2$ attainment demonstration. The one exception was Boiler #8 (EP-195) at Bayer, whose modeled emission rate of 159.1 lb/hr was determined using the results of a September 2, 2015 stack test.

The coal-fired boiler at LGS was modeled using its 1-hour critical emission value of 4,270.89 lb/hr. This value was derived from its 3,449.6 lb/hr 30-day rolling-average federally enforceable maximum permitted allowable $SO_2$ emission limit,[6]

[4] Bayer was previously named Monsanto - Muscatine.

[5] A copy of the May 17, 2016, Muscatine 1-hour $SO_2$ Nonattainment SIP, and its appendices, can be found on the DNR's Air Quality Implementation Plans website, within the "Implementation Plans for Nonattainment and Maintenance Areas" section, under the "Muscatine 2010 1-hour SO2 Nonattainment Area" subsection.

[6] In 2023, DNR added an 800 lb/hr (30-day rolling average) $SO_2$ limit to LGS's main boiler permit (as part of Iowa's SIP for the second planning period of the federal regional haze program). Since the new limit is more stringent and no stack parameters changed, revised modeling wasn't needed for that modification.

using methods consistent with Section V.D.2 of EPA's April 23, 2014, *Guidance for 1-Hour $SO_2$ Nonattainment Area SIP Submissions* memorandum. The two auxiliary boilers at LGS were modeled using their federally enforceable maximum permitted allowable emission limits of 0.06 lb/hr. The emission rates for LGS, and the associated results of the modeling analysis that supported the attainment designation for Louisa County, are summarized in Table 2-1 and Table 2-2, respectively, and described in more detail in the TSD referenced in footnote 3.

**Table 2-1. Louisa Generating Station modeled $SO_2$ emission rates.**

| Model ID | Unit Description | Modeled Emission Rate in lb/hr |
|---|---|---|
| EP01 | Main Boiler (coal-fired) | 4,270.89 (critical emission value) |
| EP02 | Auxiliary Boiler 1 (natural gas) | 0.06 (permit limit) |
| EP03 | Auxiliary Boiler 2 (natural gas) | 0.06 (permit limit) |

**Table 2-2. Summary of the model predicted concentrations (µg/m$^3$) for the LGS analysis.[7]**

| Maximum Model Design Value | Background Concentration | Total Concentration | 2010 1-Hour $SO_2$ NAAQS | Meets NAAQS |
|---|---|---|---|---|
| 186.86 | 7 | 194 | 196 | Yes |

## 2.1. Emissions Assessment

When modeling of actual $SO_2$ emissions serves as the basis for designating an area attainment, the provisions of the DRR in 40 CFR 51.1205(b) require that the state document the annual $SO_2$ emissions of each applicable source in each such area and provide an assessment of the cause of any emissions increase from the previous year. Only emissions from Bayer Boiler #8 need to be evaluated pursuant to this review. All other $SO_2$ sources at Bayer, and all the $SO_2$ sources at LGS, MPW, and GPC were modeled based on their federally enforceable maximum permitted allowable emission limits. Reviewing the actual emissions from these sources is uninformative and unwarranted pursuant to the DRR because their actual emissions must be less than their maximum permitted allowable emission limits and dispersion modeling has established that the permitted limits are protective of the 1-hour $SO_2$ NAAQS.

For the affected source, the DRR requires a review of its most recent two years of annual $SO_2$ emissions, which currently would be 2024 and 2025. However, the DNR has found that evaluating only this data does not provide sufficient information to determine if additional modeling is needed, because it excludes the actual emissions data that was modeled to support the attainment designation. A more informative review that complies with the requirement of the DRR can be conducted for Bayer Boiler #8 by also including emissions data going back through the 2012-2014 modeled timeframe.

The modeled $SO_2$ emission rate of 159.1 lb/hr for Boiler #8 was obtained from a 2015 stack test, as it represented the best source of actual emissions information available at that time for that source and was suitably representative of the 2012-2014 years modeled. To facilitate the necessary annual emissions review, the 159.1 lb/hr modeled emission rate is easily expressed as an annualized (ton per year) value because this source was modeled as operating continuously. Assuming a nominal 8760 hours of operation produces annualized $SO_2$ emissions of 696.9 tons. As shown in Figure 2-3, that value exceeds all the reported annual $SO_2$ emissions for this source from any year within the 2012-2025 timeframe.

Comparing the most recent two years, as required by the DRR, reveals that the $SO_2$ emissions from Bayer Boiler #8 increased by 0.03 tons between 2024 and 2025 from 0.11 to 0.14 tons per year, as shown in Figure 2-3.[8] However, this is largely unimportant when compared to the 99.9% reduction in $SO_2$ emissions that occurred between 2017 and 2018 due to a fuel switch from coal to natural gas. Natural gas combustion began on November 3, 2017, and thereafter, the use of coal in Boiler #8 is prohibited by DNR air construction permit number 82-A-092-P12.

[7] This modeling analysis, like the modeled attainment demonstration described in the Muscatine 1-hour $SO_2$ nonattainment SIP, included seven scenarios, depending upon which boilers (Units 7, 8, and 9) are operating at MPW. The results shown here reflect the scenario which produced the highest modeled impact (only Unit 7 operating).

[8] Actual emissions data obtained from the DNR's State and Local Emissions Inventory System (SLEIS) as reported by the facility.

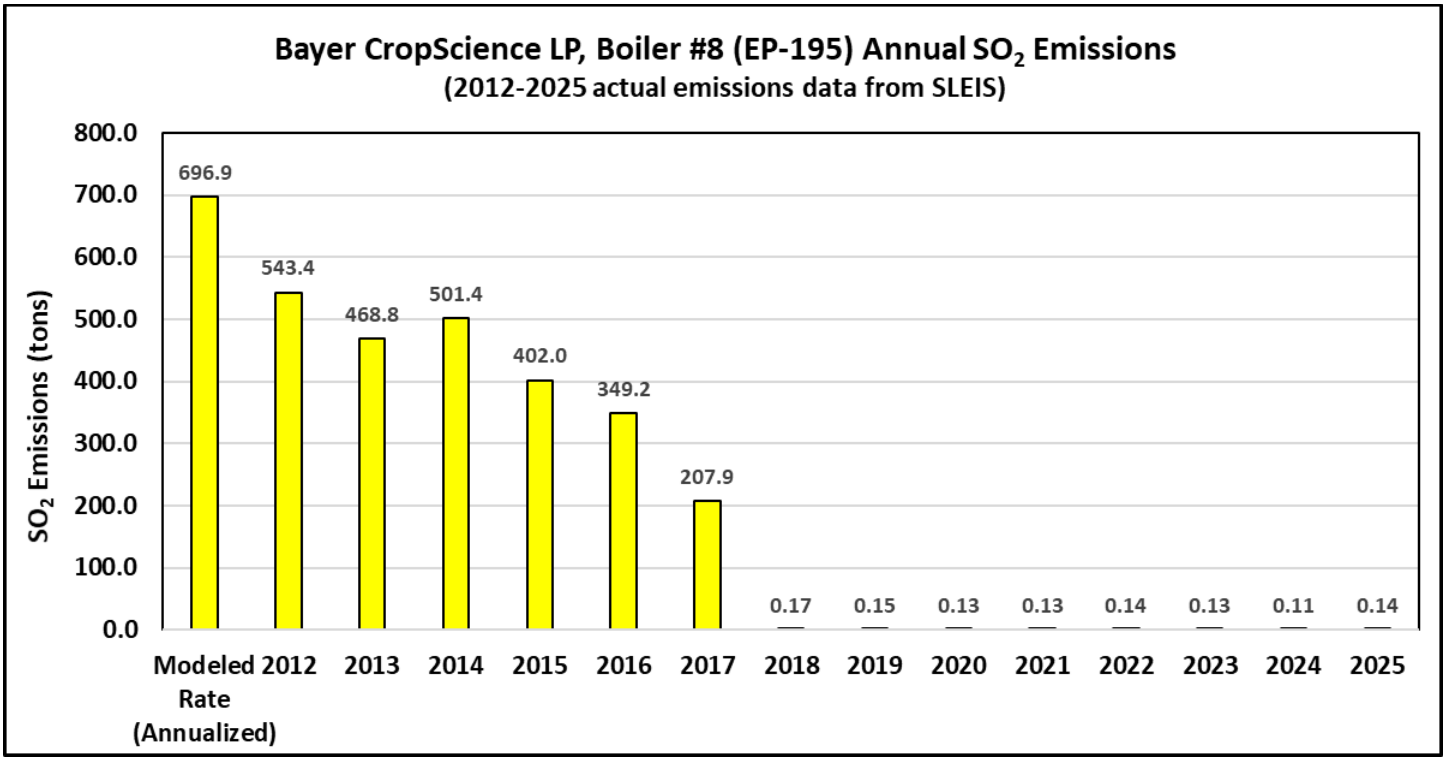



**Figure 2-3. Annualized modeled and 2012-2025 actual $SO_2$ emissions (tons per year) from Boiler #8 at Bayer.**

## 2.2. Recommendation

The state must provide a recommendation, pursuant to 40 CFR 51.1205(b)(1), regarding whether additional modeling is needed to characterize air quality in the area to determine whether the area meets or does not meet the 2010 1-hour $SO_2$ NAAQS. The modeling analysis that supported the attainment designation for Louisa County yielded a total maximum concentration of 194 µg/$m^3$ (see Table 2-2), meeting the 2010 1-hour $SO_2$ NAAQS. That analysis was based on Bayer Boiler #8 combusting coal. Starting November 3, 2017, that unit is limited to burning only natural gas, and therefore, it emits little $SO_2$ after that date. Given this, and that all other sources in that analysis were modeled based on their federally enforceable maximum permitted allowable emission limits, additional modeling is not needed to determine that Louisa County still meets the 2010 1-hour $SO_2$ NAAQS.[9]

[9] To the extent necessary, this conclusion is also applicable to that portion of Muscatine County designated attainment in the third round of the 2010 1-hour $SO_2$ NAAQS designations. While the modeling analysis for Louisa Generating Station was focused on Louisa County, the receptor grid did extend slightly into portions of south-central Muscatine County, in a region just west of the western edge of the nonattainment boundary. The receptors in this region were generally no closer than 8 -10 km from an $SO_2$ source in the modeling analysis, and all yielded predicted concentrations that met the 2010 1-hour $SO_2$ NAAQS.

## 3. Pottawattamie County Review

MidAmerican's WSEC (facility ID 78-01-026) is the only source in Pottawattamie County meeting the applicability requirements of the DRR. It was identified by the DNR, in a letter to EPA dated December 15, 2015, as a source that was not located in a nonattainment area and whose most recent actual annual $SO_2$ emissions were 2,000 tons or more. At that time the 2014 annual emissions data were the most recent available, and WSEC's reported annual $SO_2$ emissions for 2014 were 13,749 tons.

WSEC is an electric generating facility with two coal-fired boilers, identified as Units 3 and 4.[10] Unit 3 has a maximum rated capacity of 7,700 MMBtu/hr, and Unit 4 has a maximum rated capacity of 7,675 MMBtu/hr. According to the 2018 Form EIA-860 data, Unit 3 serves a generator with a nameplate capacity of 725.8 megawatts (MW) that began operating in 1978, and Unit 4 serves a generator with a nameplate capacity of 922.5 MW that began operating in 2007. The location of WSEC is indicated in Figure 3-1.

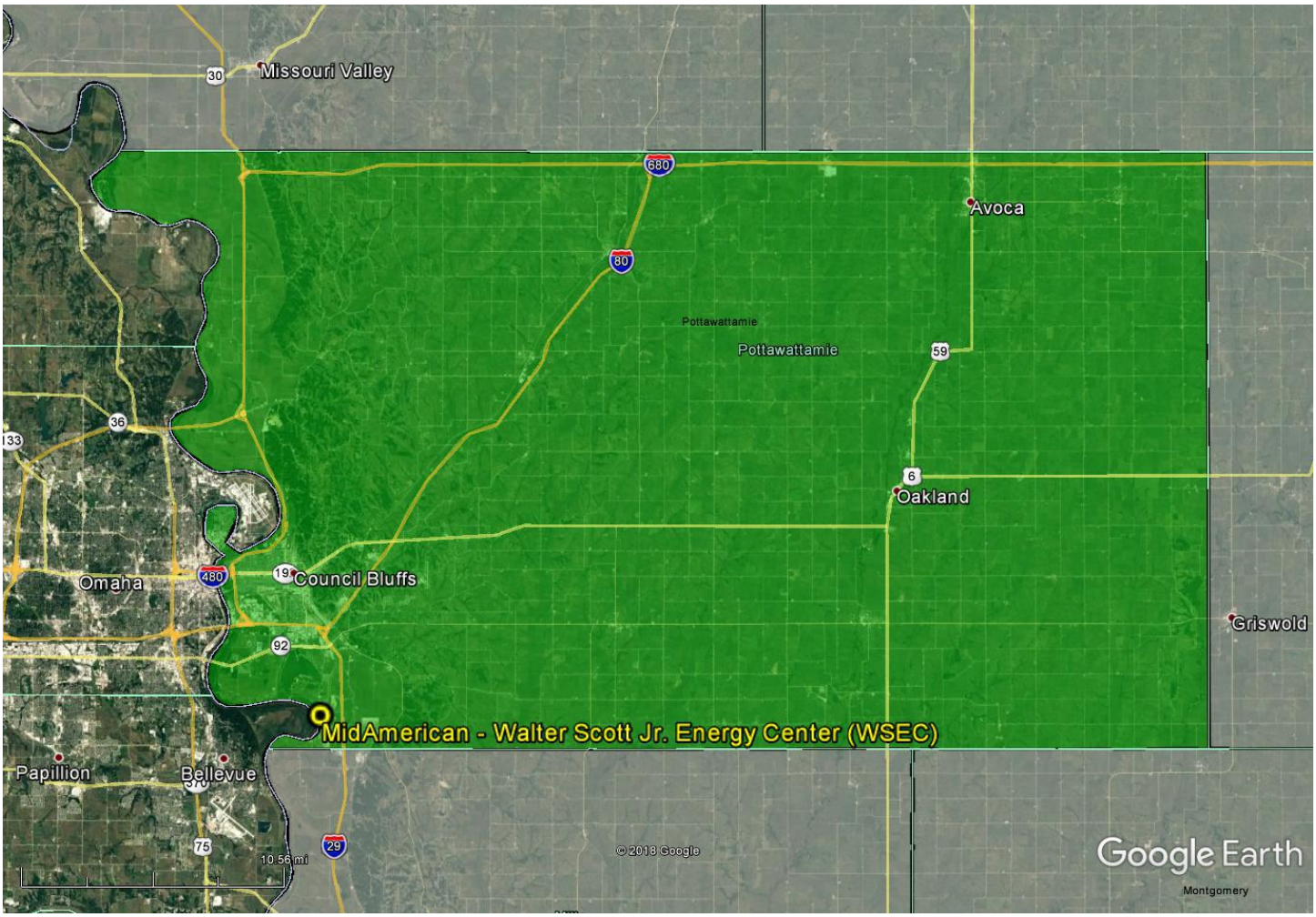



**Figure 3-1. Location of MidAmerican's WSEC.**

The largest $SO_2$ sources at WSEC are the two coal-fired boilers, Units 3 and 4. An auxiliary boiler is also a potential $SO_2$ source, but under normal operation it is fired by natural gas and emits relatively little $SO_2$. The facility's emergency generator is an intermittent source that was excluded from the modeling analysis that supported the attainment designation. Its exclusion was justified pursuant to Section 5.5 of EPA's draft "*$SO_2$ NAAQS Designations Modeling Technical Assistance Document"* (referred to as the "Modeling TAD," most recently updated August 2016). A detailed

[10] Two other coal-fired boilers at WSEC, identified as Units 1 and 2, were permanently shut down in 2015 and thus excluded from the modeling analysis that supported the attainment designation for Pottawattamie County.

description of the modeling analysis that supported the attainment designation for Pottawattamie County is available in the DNR's revised TSD[11] for the third round of 1-hour $SO_2$ designations.

As described in more detail in that TSD, the $SO_2$ emissions from facilities within 10 km of WSEC were evaluated to identify additional sources to model. No relevant $SO_2$ sources were found. The search was then extended to areas within 10-20 km of WSEC, and the Nebraska Department of Environment and Energy (NDEE; now the Department of Water, Energy, and Environment, or DWEE) identified two $SO_2$ sources. One source, Eppley Airfield, was excluded from the DNR's modeling analysis because its 2011 $SO_2$ emissions were only 36 tons, and it was 18 km from WSEC. The other source, the Omaha Public Power District (OPPD) North Omaha facility, had $SO_2$ emissions large enough to warrant its inclusion in the DNR's modeling analysis for WSEC.[12]

The larger (by electrical generating capacity) of the two coal-fired boilers at WSEC, Unit 4, was modeled using its 1-hour critical emission value of 909.8 lb/hr. This value was derived from its 0.1 lb/MMBtu 30-day rolling-average federally enforceable maximum permitted allowable $SO_2$ emission limit (in combination with the unit's maximum rated capacity of 7,675 MMBtu/hr), using methods consistent with Section V.D.2 of EPA's April 23, 2014, *Guidance for 1-Hour $SO_2$ Nonattainment Area SIP Submissions* memorandum. The other coal-fired boiler, Unit 3, was modeled using its 2012-2014 actual hourly emission rates as measured using a continuous emission monitoring system (CEMS). The natural gas auxiliary boiler was modeled using its federally enforceable maximum permitted allowable emission limit of 0.21 lb/hr. The emission rates for WSEC, and the associated results of the modeling analysis that supported the attainment designation for Pottawattamie County, are summarized in Table 3-1 and Table 3-2, respectively, and described in more detail in the TSD referenced in footnote 11.

**Table 3-1. Walter Scott Jr. Energy Center modeled $SO_2$ emission rates.**

| Model ID | Unit Description | Modeled Emission Rate in lb/hr |
|---|---|---|
| EP003 | Unit 3 Boiler (coal-fired) | 2012 – 2014 variable actual hourly (CEMS) |
| EP141 | Unit 4 Boiler (coal-fired) | 909.8 (critical emission value) |
| EP142 | Auxiliary Boiler (natural gas) | 0.21 (permit limit) |

**Table 3-2. Summary of the model predicted concentrations (µg/m$^3$) for the WSEC analysis.**

| Maximum Model Design Value | Background Concentration | Total Concentration | 2010 1-Hour $SO_2$ NAAQS | Meets NAAQS |
|---|---|---|---|---|
| 127.0 | 7 | 134 | 196 | Yes |

## 3.1. Emissions Assessment

When modeling of actual $SO_2$ emissions serves as the basis for designating an area attainment, the provisions of the DRR in 40 CFR 51.1205(b) require that the state document the annual $SO_2$ emissions of each applicable source in each such area and provide an assessment of the cause of any emissions increase from the previous year. Only emissions from WSEC Unit 3 need to be evaluated pursuant to this review. Unit 4 was modeled using its 1-hour critical emission value, which was derived from its federally enforceable maximum permitted allowable emission limit. The auxiliary boiler was also modeled using its federally enforceable maximum permitted allowable emission limit. Reviewing the actual emissions from these sources is uninformative and unwarranted pursuant to the DRR because their actual emissions must be less than their maximum permitted allowable emission limits, and dispersion modeling has established that the permitted limits are protective of the 1-hour $SO_2$ NAAQS.

For the affected source, the DRR requires a review of its most recent two years of annual $SO_2$ emissions, which currently would be 2024 and 2025. However, the DNR found that evaluating only this data does not provide sufficient information

[11] *2010 1-Hour Sulfur Dioxide ($SO_2$) Standard, Round 3 Designations Recommendations and Data Requirements Rule, Technical Support Document*, Iowa DNR, dated December 19, 2016 (revised 4/3/2017).

[12] The DNR modeled the OPPD North Omaha facility using actual emission rates (CEMS data) for its two coal-fired boilers. However, its emissions need not be evaluated pursuant to this review because: the North Omaha facility is 19 km from WSEC; it is located in Douglas County, Nebraska; the NDEE used ambient air quality monitoring to characterize peak 1-hour $SO_2$ concentrations in the area of that source; and EPA designated Douglas County as attainment/unclassifiable in round 4 (86 FR 16055, March 26, 2021).

to determine if additional modeling is needed, because it excludes the 2012-2014 actual emissions data that was modeled to support the attainment designation. A more informative review that complies with the requirement of the DRR can be conducted for WSEC Unit 3 by also including emissions data going back through the 2012-2014 modeled timeframe.

The actual annual $SO_2$ emissions from WSEC Unit 3 for the years 2012-2025 are shown in Figure 3-2. This information was obtained on April 8, 2026, using EPA's Clean Air Markets Program Data (CAMPD) Custom Data Download Tool. Between 2024 and 2025, the $SO_2$ emissions from WSEC Unit 3 increased by 156 tons, or 9.5%. While heat input increased by larger degree, at 18.8%, the annual average $SO_2$ emission rate decreased, from 0.095 lb/MMBtu in 2024 to 0.087 lb/MMBtu in 2025, as shown in Figure 3-3. The 7.8% decrease in the annual emission rate might be attributable to a small improvement in scrubber control efficiency, a reduction in the sulfur content of the coal, or a combination of those factors. Further investigation isn't warranted given that the change is relatively small, especially in comparison to the 73.9% decrease that occurred in the $SO_2$ emission rate between 2023 (0.363 lb/MMBtu) and 2024 (0.095 lb/MMBtu), a result of required scrubber improvements implemented in late 2023.[13]

WSEC Unit 3's 2024 and 2025 actual annual $SO_2$ emissions are substantially lower than in prior years. During the 2012-2014 modeled timeframe, the annual $SO_2$ emissions from WSEC Unit 3 averaged 9,166 tons per year, whereas its actual annual emissions in 2025 were 1,801 tons. That represents an emissions decrease of 7,365 tons, or 80.4%, driven largely by the scrubber improvements.

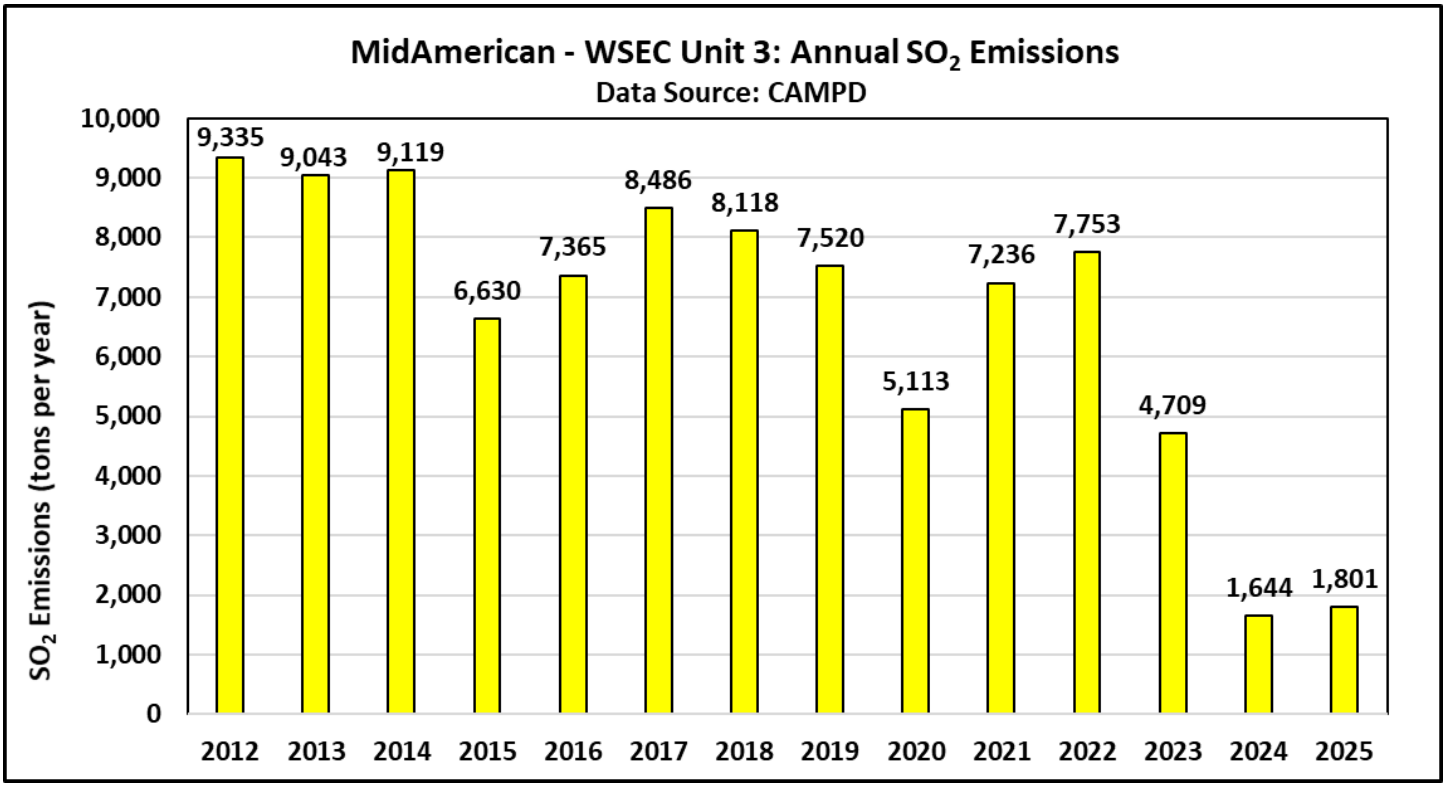
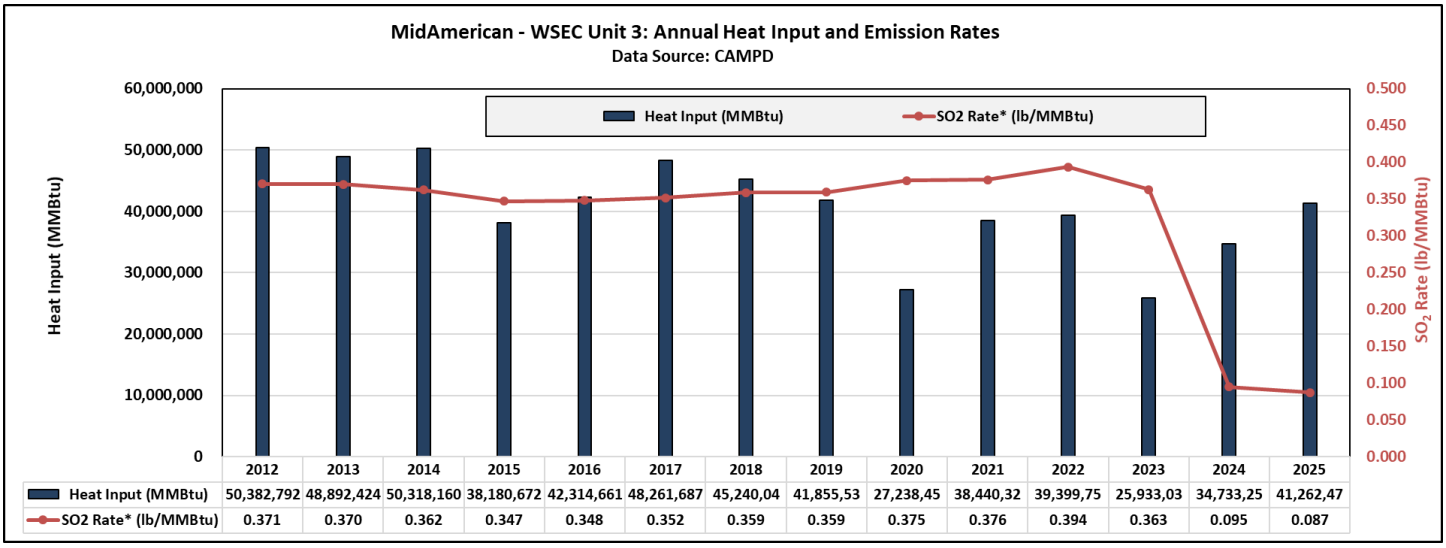



**Figure 3-2. Annual 2012-2025 actual $SO_2$ emissions (tons per year, rounded to the nearest ton) from Unit 3 at WSEC.**

[13] As part of Iowa's regional haze SIP for the second planning period of the federal regional haze program (40 CFR 51.308), the DNR established a new 770 lb/hr (30-day rolling average) $SO_2$ emission limit for WSEC Unit 3 and required MidAmerican to implement operational improvements to the unit's existing dry flue gas desulfurization (FGD) system (scrubber) by December 31, 2023. EPA fully approved Iowa's regional haze plan on August 5, 2025 (90 FR 37389).




| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heat Input (MMBtu) | 50,382,792 | 48,892,424 | 50,318,160 | 38,180,672 | 42,314,661 | 48,261,687 | 45,240,04 | 41,855,53 | 27,238,45 | 38,440,32 | 39,399,75 | 25,933,03 | 34,733,25 | 41,262,47 |
| SO2 Rate* (lb/MMBtu) | 0.371 | 0.370 | 0.362 | 0.347 | 0.348 | 0.352 | 0.359 | 0.359 | 0.375 | 0.376 | 0.394 | 0.363 | 0.095 | 0.087 |

**Figure 3-3. Annual 2012-2025 heat input (MMBtu) and $SO_2$ emission rates (lb/MMBtu) from Unit 3 at WSEC.**

## 3.2. Recommendation

The state must provide a recommendation, pursuant to 40 CFR 51.1205(b)(1), regarding whether additional modeling is needed to characterize air quality in the area to determine whether the area meets or does not meet the 2010 1-hour $SO_2$ NAAQS. The modeling analysis that supported the attainment designation for Pottawattamie County used actual hourly emission rates from 2012-2014 for WSEC Unit 3 and it yielded a total maximum concentration of 134 µg/m$^3$ (see Table 3-2), which is approximately 32% below the 2010 1-hour $SO_2$ NAAQS level of 75 ppb (~196 µg/m$^3$). The 2025 annual $SO_2$ emissions from Unit 3 are 9.5% higher than they were in 2024, but 80.4% lower than the average of the 2012-2014 annual emissions. Given this, and that all other sources at WSEC were modeled based on their federally enforceable maximum permitted allowable emission limits, additional modeling is not needed to determine that Pottawattamie County still meets the 2010 1-hour $SO_2$ NAAQS.