

Nebraska Department of Environmental Quality

2018 Annual Report on Modeled Facilities (Data Requirements Rule, 2010 SO₂ NAAQS)

NEBRASKA

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Introduction

The Data Requirements Rule (DRR) for the 2010 1-hour SO₂ Primary National Ambient Air Quality Standards (NAAQS) was issued in August 2015, and outlines ongoing requirements for states with areas designated as attainment based on air quality modeling. Nebraska has three areas that meet the criteria for ongoing requirements.

Nebraska Department of Environmental Quality (NDEQ) asserts that all areas continue to demonstrate attainment with the NAAQS, and that additional air quality modeling is not necessary as this time. Analysis of emissions data and discussion are provided below.

Areas Subject to Ongoing Requirements

The following areas subject to the ongoing requirements described in 40 CFR Part 51.1205. Modeling analyses used to characterize these areas utilized actual emissions data and these areas have no subsequent “nonattainment” designations.

Nebraska City Station (NCS) – OPPD (Otoe County)

The area surrounding this facility was designated “unclassifiable/attainment” on July 12, 2016 (81 FR 45039).

Emissions impact data calculated using the modeling analysis for this area was less than 50% of the NAAQS. As noted in 40 CFR Part 51.1205(b)(2), a state is not subject to the requirement for annual reports if the air quality modeling demonstrates that air quality values at all receptors in the area are less than 50% of the NAAQS. In the 2017 report, Nebraska noted its intention to utilize this exemption in future reports; since no formal action has been taken by EPA to approve the modeling, Nebraska is relying on the Round 2 modeling and the EPA’s finalization of the Round 2 designations as the state’s interpretation that the Administrator approved that modeling. To further support continued attainment with the standard, it is noted that the most current three-year average of emissions (2015-2017) for this facility is less than the three-year average of the emissions data used in the modeling, which indicated an emissions impact below 50% of the NAAQS.

Whelan Energy Center – Hastings Utilities (Adams County)

This area was designated “unclassifiable/attainment” on January 9, 2018 (83 FR 1098). Annual reporting for this facility will be included in the 2019 report, in accordance with 40 CFR 51.1205(b).

Gerald Gentleman Station (GGS) – NPPD (Lincoln County)

The modeling analysis used to characterize the area surrounding this facility was performed in September 2015 and utilized actual facility emissions from 2012-2014. This analysis indicated the SO₂ impact (99th percentile 1-hour SO₂ concentration) on the area to be 144.8 ug/m³, or 55.3 parts per billion (ppb). This impact value is below the 1-hour SO₂ NAAQS of 75 ppb, and the facility was designated “unclassifiable/attainment” on July 12, 2016 (81 FR 45039).

Emissions data for GGS is shown in Table 1 below. Data from 2012-2014 used in the modeling analysis and emissions data for 2015-2017 are included for comparison. Given that average emissions for 2015-2017 are less than those for 2012-2014, NDEQ asserts that the area surrounding GGS continues to be in attainment with the 1-hour SO₂ NAAQS, and additional modeling is not necessary at this time.

GGS participates in the Cross-State Air Pollution Rule (CSAPR) trading program for SO₂, and actual facility emissions are below the SO₂ allocations of 13,780 tons (Unit 1) and 15,116 tons (Unit 2).¹

Table 1. Gerald Gentleman Station

Unit	SO ₂ Emissions (tons per year)					
	2012	2013	2014	2015	2016	2017
1	14,832	13,047	12,539	11,730	12,853	10,351
2	11,605	15,383	11,945	13,283	9,915	10,904
Total	26,437	28,430	24,484	25,013	22,768	21,255
Average (2012-2014)	26,450					
Average (2015-2017)				23,012		

Emissions data acquired from the Clean Air Markets Division, <https://ampd.epa.gov/ampd/>. Emissions dataset was labeled as “Preliminary” of the date of this report.

Conclusion

Emissions data analysis from the areas subject to the ongoing requirements indicates that these areas demonstrate attainment with the 2010 1-hour SO₂ NAAQS. Based on this analysis, NDEQ asserts that additional modeling is not necessary at this time to further characterize these areas.

¹ <https://www.epa.gov/csapr/cross-state-air-pollution-rule-csapr-allowance-allocations-and-templates>