

# Nebraska Department of Environmental Quality

## Annual Report on Modeled Facilities (Data Requirements Rule, 2010 SO<sub>2</sub> NAAQS)

# NEBRASKA

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**DEPT. OF ENVIRONMENTAL QUALITY**

**Jim Macy, Director**  
May 19, 2017

June XX, 2017

Mr. Edward Chu  
Acting Regional Administrator  
U.S. EPA Region VII  
11201 Renner Blvd.  
Lenexa, KS 66219

Dear Mr. Chu:

Enclosed is Nebraska's *Annual Report on Modeled Facilities (Data Requirements Rule, 2010 SO<sub>2</sub> NAAQS)*, which satisfies ongoing requirements contained in the Data Requirements Rule, and specified in 40 CFR 51.1205 for the 2010 1-hour SO<sub>2</sub> National Ambient Air Quality Standards (NAAQS). This report addresses two areas of the state designated "unclassifiable/attainment" by EPA on the basis of air quality modeling. Annual emissions for applicable sources within these areas are presented and assessed as part of this report, along with the State's recommendation regarding whether additional monitoring is necessary.

The areas surrounding Gerald Gentleman Station and Nebraska City Station were designated "unclassifiable/attainment" by EPA in July 2016, and the assessment of recent emissions data indicates that both areas are meeting the 2010 SO<sub>2</sub> NAAQS. Therefore, the State is submitting its recommendation that no additional modeling is needed at this time to characterize the air quality in these areas.

If you have any questions regarding this submission, please contact Kevin Stoner, Air Division Administrator, at (402) 471-XXXX or Tracy Wharton, NAAQS-SIP Coordinator, at (402) 471-XXXX.

Sincerely,

Jim Macy  
Director, Nebraska Department of Environmental Quality

## Introduction

The Data Requirements Rule (DRR) for the 2010 1-hour SO<sub>2</sub> Primary National Ambient Air Quality Standards (NAAQS) was issued in August 2015, and outlines ongoing requirements for states having areas designated as attainment based on air quality modeling. Nebraska has two areas that meet the criteria for ongoing requirements, and they are discussed below.

Nebraska Department of Environmental Quality (NDEQ) asserts that both 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

Areas surrounding two Nebraska facilities are subject to the ongoing requirements described in 40 CFR Part 51.1205. Both areas were designated based on characterization using air quality modeling. This modeling analysis utilized actual emissions data and the areas have no subsequent “nonattainment” designations.

### Nebraska City Station (NCS) – Omaha Public Power District (OPPD)

The modeling analysis used to characterize the area surrounding NCS was performed in August 2015 and utilized actual facility emissions data from 2012-2014. This analysis indicated the SO<sub>2</sub> impact (99<sup>th</sup> percentile 1-hour SO<sub>2</sub> concentration) on the area to be 78.5 ug/m<sup>3</sup>, or 32.7 parts per billion (ppb). This impact value is below the 1-hour SO<sub>2</sub> NAAQS of 75 ppb and the area was designated “unclassifiable/attainment” on July 12, 2016 (81 FR 45039). As noted in 40 CFR Part 51.1205(b)(2), the state is not subject to the requirement for annual reports since the impact value in this area is less than 50% of the NAAQS. Nebraska intends to utilize this exemption in the future.

Emissions data for NCS is shown in Table 1 below. Data from 2012-2014 used in the modeling analysis, and emissions data for 2015 and 2016 are included to provide comparison. Given that the average emissions for 2014-2016 are less than the average emissions for 2012-2014, NDEQ asserts that the area surrounding NCS continues to be in attainment with the 1-hour SO<sub>2</sub> NAAQS, and that additional modeling is not necessary at this time.

**Table 1. Nebraska City Station**

Unit	SO <sub>2</sub> Emissions (tons per year)				
	2012	2013	2014	2015	2016
1	14,544	14,696	13,969	16,704	12,232
2	2,222	2,214	2,165	1,843	2,490
<b>Total</b>	<b>16,766</b>	<b>16,910</b>	<b>16,134</b>	<b>18,547</b>	<b>14,722</b>
<b>Average (2012-2014)</b>	<b>16,603</b>				
<b>Average (2014-2016)</b>			<b>16,467</b>		

Emissions data acquired from the Clean Air Markets Division, <https://ampd.epa.gov/ampd/>

## Gerald Gentleman Station (GGS) - NPPD

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 SO<sub>2</sub> impact (99<sup>th</sup> percentile 1-hour SO<sub>2</sub> concentration) on the area to be 144.8 ug/m<sup>3</sup>, or 55.3 parts per billion (ppb). This impact value is below the 1-hour SO<sub>2</sub> 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 2 below. Data from 2012-2014 used in the modeling analysis and emissions data for 2015 and 2016 are included to provide comparison. Given that the average emissions for 2014-2016 are less than the average emissions for 2012-2014, NDEQ asserts that the area surrounding GGS continues to be in attainment with the 1-hour SO<sub>2</sub> NAAQS, and that additional modeling is not necessary at this time.

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

**Table 2. Gerald Gentleman Station**

Unit	SO <sub>2</sub> Emissions (tons per year)				
	2012	2013	2014	2015	2016
1	14,832	13,047	12,539	11,730	12,853
2	11,605	15,383	11,945	13,283	9,915
<b>Total</b>	<b>26,437</b>	<b>28,430</b>	<b>24,484</b>	<b>25,013</b>	<b>22,768</b>
<b>Average (2012-2014)</b>	<b>26,450</b>				
<b>Average (2014-2016)</b>			<b>24,088</b>		

Emissions data acquired from the Clean Air Markets Division, <https://ampd.epa.gov/ampd/>

## Conclusion

Emissions data analysis from the areas subject to the ongoing requirements indicates that the areas demonstrate attainment with the 2010 1-hour SO<sub>2</sub> NAAQS. Based on this analysis, NDEQ asserts that additional modeling is not necessary at this time to further characterize these areas.

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