GOVERNMENT OF PUERTO RICO
DEPARTMENT OF NATURAL AND ENVIRONMENTAL RESOURCES

JUN 29 2023

Lisa F. García
Regional Administrator
US EPA-Region II
290 Broadway 25th Floor
New York NY, 10007-1866

RE: Annual Emission Report 1- Hour SO_2 NAAQS
Guayanilla Area

As required by the 40 CFR 51.1205, any area where modeling of SO_2 served as the basis for designation, their air agency have to submit an annual report to the EPA Regional Administrator by July 1 of each year, that documents the annual SO_2 emissions in each such area. Puerto Rico (PR) updated the 1- Hour SO_2 report for Guayanilla, using the 2019-2020 SO_2 actual emission data in the area.

Enclosed you will find, the compliance report for the revision of the 1-Hour SO_2 standard in the Guayanilla area. Following the 40 CFR 51.1205, PR fulfill the annual revision of the 1-Hour SO_2 model for Guayanilla, including the most recent two years of SO_2 actual emissions from PREPA Costa Sur. The report will be available for public inspection exclusively on the Department of Natural and Environmental Resources' website: www.drna.pr.gov/acai/muestreo.

If you have any additional information regarding the report, please feel free to contact me, at 787-999-2200 or by email.

Cordially,

Anaís Rodríguez Vega
Secretary

GOVERNMENT OF PUERTO RICO
DEPARTMENT OF NATURAL AND ENVIRONMENTAL RESOURCES

PUERTO RICO
ANNUAL EMISSION REPORT FOR THE 1-HOUR SO_2 NAAQS
GUAYANILLA AREA

Department of Natural and Environmental Resources
Air Quality Area

June 2023

Contents

1.0 Introduction and Background

The EPA, promulgated in June 2010, the new 1-hour primary sulfur dioxide (SO_2) National Ambient Air Quality Standard (NAAQS) of 75 parts per billion (ppb), which is met at an ambient air quality monitoring site, when the 3-year average of the 99th percentile of 1-hour daily maximum concentrations does not exceed 75 ppb. On January 2018, the EPA published in the Federal Register (83 FR 1098), the Air Quality Designations for the 2010 Sulfur Dioxide (SO_2) Primary National Ambient Air Quality Standard- Round 3. The 1-Hour SO_2 NAAQS final rule, direct the designation of attainment/unclassified for the Guayanilla area, that includes the municipalities of Guayanilla and Peñuelas. The facility in Guayanilla area that was identified by EPA, as needed to be documented their emissions, was PREPA Costa Sur.

As required by the 40 CFR 51.1205[1], any area where modeling of SO_2 served as the basis for designation, their air program in the agency have to submit an annual report and recommendations to the EPA Regional Administrator by July 1 of each year, that documents the annual SO_2 emissions in each such area. DNER presents in this report the updated SO_2 annual emissions in the Guayanilla area, for the period of 2020-2022.

The Guayanilla area attains the 1-Hour SO_2 standard, using three years of PREPA Costa Sur actual emission data from 2013-2015. The final designation for Guayanilla area (Guayanilla and Peñuelas municipalities) was attainment/unclassified.

Following the 40 CFR 51.1205, DNER fulfill the annual revision of the 1-Hour SO_2 emissions for Guayanilla area, including the most recent three years of SO_2 actual emissions from PREPA Costa Sur. The annual SO_2 emissions used in this document are from PREPA Costa Sur certified emission reports, from years 2020-2022.

2.0 Annual SO_2 Emissions

This report includes the PREPA Costa Sur actual SO_2 emissions from years 2020-2022. No other sources in the area were identified to emit significant SO_2 emissions.

Table 1: Annual SO_2 Emissions in Guayanilla Area (TPY)

PREPA Costa Sur Emission Unit	2020	2021	2022
Boiler SC3/SC4	0	0	0
Boiler SC5	1557	3707	2988
Boiler SC6	75.8	2252	3917
Gas Turbines 1-1, 1-2	0	0	0.0017
TOTAL	**1633**	**5959**	**6905**

*Data from PREPA Costa Sur Annual Emission Report.

[1] Code of Federal Regulations, Title 40. Subchapter C, Subpart BB, Section 51.1205. Ongoing Data Requirements.

The annual SO_2 emissions in Guayanilla Area decrease in 2020, because not all PREPA Costa Sur emission units were operating during this year. Total SO_2 annual emissions for 2020 were 1633 TPY. In 2021, the SO_2 annual emissions from PREPA Costa Sur increased to 5959 TPY and in 2022 increased to 6905 TPY.

Although the 2022 PREPA Costa Sur SO_2 annual emissions are higher than in 2021, the emissions from 2020 to 2022 are lower in comparison with the modeled on the 1- hour SO_2 designation, using the three years SO_2 emissions from 2013-2015 (6977 TPY in 2013, 8335 TPY in 2014, 9331 TPY in 2015). The SO_2 emissions from 2020 to 2022 are also lower than the emissions from previous years, 2017-2019 (6352 TPY in 2017, 6664 TPY in 2018 and 8103 TPY in 2019).

DNER modeled the PREPA Costa Sur annual SO_2 emissions from 2016 to 2018, and the results attain the 1- hour SO_2 NAAQS of 196 $\mu g/m^3$. Refer to the Guayanilla Area 2016-2018 SO_2 annual modeling report for more information[2].

3.0 Monitoring Data

The nearest SO_2 monitoring station that is currently active is in Guayama municipality is the 72-057-0011. There is not recent data from the previous monitors that were operated nearby Guayanilla Area. The latest available monitoring data from the monitors nearby Guayanilla area is from 2010.

The data from the monitor 72-057-0011 is presented in Table 2 and the design values are below the 1- hour SO_2 NAAQS of 75 ppb.

Table 2: SO_2 Design Values (2017-2022)

Monitor	Municipality	SO_2 Design Values (ppb)				
		2017	2018	2019	2021	2022
72-057-011	Guayama	3.0	7.0	6.0	3.4	3.0

*Data from the EPA https://www.epa.gov/outdoor-air-quality-data/monitor-values-report
*No monitoring data available for 2020.

4.0 Recommendation

Based on the information presented in this report, DNER concludes that Guayanilla area continues to attain the 2010 SO_2 NAAQS, and that no additional modeling is necessary to characterize the air quality in such area.

5.0 Conclusion

This report satisfies the requirements of the 40 CFR 51.1205 for the years 2020 to 2022 in the Guayanilla area.

[2] Puerto Rico Modeling Revision for the 1-Hour SO_2 NAAQS Guayanilla Area. DNER, May 2019.