

**STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

**ONGOING DATA REQUIREMENTS  
ANNUAL REPORT**



**ANNUAL REVIEW OF FACILITY EMISSIONS**

**June 20, 2023**

## Table of Contents

1. Background.....	3
2. Annual SO <sub>2</sub> Emissions Review.....	3

## 1. Background

On August 21, 2015, the U.S. Environmental Protection Agency (EPA) promulgated the “Data Requirements Rule” (DRR) (80 Fed. Reg. 51052; codified at 40 C.F.R. Part 51, Subpart BB), which requires states to evaluate compliance with the 2010 one-hour sulfur dioxide (SO<sub>2</sub>) National Ambient Air Quality Standard (NAAQS) in areas surrounding certain large SO<sub>2</sub> sources. Pursuant to the DRR, states could choose to perform area characterizations around the specified sources using either air quality monitoring or air dispersion modeling. The Florida Department of Environmental Protection (Department) opted to characterize all areas of Florida using air dispersion modeling.

Pursuant to the ongoing data requirements of the DRR, as detailed at 40 C.F.R. 51.1205, the Department must submit an annual report to EPA documenting the SO<sub>2</sub> emissions of sources in areas that EPA designated unclassifiable/attainment based on modeling of actual SO<sub>2</sub> emissions which resulted in maximum modeled concentrations below the one-hour SO<sub>2</sub> NAAQS.

In Florida, there are two facilities still subject to these requirements:

- Jacksonville Electric Authority’s (JEA) Northside Generating Station (NGS) / St. Johns River Power Park (SJRPP); and
- WestRock CP, LLC’s Fernandina Beach Mill (WestRock).

**Section 2** of this report documents SO<sub>2</sub> emissions decreases at JEA and WestRock and confirms that the areas around these facilities remain in attainment for the one-hour SO<sub>2</sub> NAAQS.

## 2. Annual SO<sub>2</sub> Emissions Review

The DRR modeling demonstrations for JEA and WestRock, which the Department submitted to EPA on January 13, 2017, used actual SO<sub>2</sub> emissions from 2012 to 2014. Emissions from each of these facilities have substantially decreased over the period of 2020 to 2022 as compared to the period of 2012 to 2014 (**Table 1**).<sup>1</sup>

In 2014, the Department permitted JEA to reintroduce fly ash into Boilers 1 and 2 at NGS, which acts as an additional SO<sub>2</sub> control, thus reducing emissions. In 2016, the Department incorporated Mercury and Air Toxics Standards (MATS) provisions into the facility’s Title V permit. In 2018, JEA retired both units at SJRPP, reducing total emissions to just those from NGS.

Decreases in SO<sub>2</sub> emissions at WestRock are due primarily to the implementation of controls and emissions limits to comply with the Nassau County Nonattainment Area State Implementation Plan (NAA SIP). In 2015, as part of the Nassau County NAA SIP, the Department issued an air construction permit to WestRock to implement a variety of controls, including improvements to the recovery boilers, installation and operation of a piping system to transport non-condensable

---

<sup>1</sup> All emissions data are from each facility’s CEMS. Hourly CEMS data for 2012 to 2014 were reported directly to the Department for DRR modeling purposes. Data for 2020 to 2022 are from each facility’s Annual Operating Report (AOR) submissions to the Department. Rule 62-210.370, F.A.C., requires that facilities report their annual emissions using CEMS if available.

gases for combustion in the No. 7 Power Boiler, and a scrubber system to remove total reduced sulfur from the non-condensable gas stream prior to combustion, each of which resulted in SO<sub>2</sub> emissions decreases.

**Table 1** provides emissions at the unit level for emissions units that were modeled using actual emissions. Emissions units not listed were modeled using allowable emission rates.

The decreases in SO<sub>2</sub> emissions at JEA and WestRock are due largely to implementation of controls and lower permitted SO<sub>2</sub> emission limits. The Department does not, therefore, expect that SO<sub>2</sub> emissions would return to the levels that occurred during the period of 2012 to 2014.

In 2021, total SO<sub>2</sub> emissions did, however, increase at WestRock in 2021 compared to 2020. A representative of the Westrock facility confirmed that the emissions increase was attributable to increased coal utilization during a period of higher natural gas prices. In addition, Westrock reported that the pulping liquor used during periods in 2021 had a higher sulfidity compared to the pulping liquor used in the previous year, which contributed to higher emissions at the recovery furnaces. Although SO<sub>2</sub> emissions from WestRock's recovery boiler did increase in 2021, SO<sub>2</sub> emissions decreased again in 2022 (below 2020 levels), and the three-year average (2020-2022) is well below that of the previous period.

As such, the Department finds the DRR modeling that the Department submitted to EPA on January 13, 2017, to be conservative, and the Department has determined that no additional modeling is needed to characterize the air quality in this area.

The Department recommends that the areas around JEA and WestRock retain their unclassifiable/attainment designations. These areas will continue to be subject to the ongoing data requirements under the DRR.

**Table 1.** Comparison of 2012-2014 and 2020-2022 SO<sub>2</sub> emissions (in tons per year) for DRR facilities requiring annual review

County	Facility	2012	2013	2014	2012-2014 Average	2020	2021	2022	2020-2022 Average	Percent Change
Duval	JEA	13,835	16,459	20,978	17,091	2,387	1,505	1,667	1,853	-89.2%
Nassau	WestRock (Total)	3,573	3,671	3,797	3,680	633	828	510	657	-82.1%
Nassau	WestRock #4 Recovery Boiler <sup>a</sup>	101	98	103	101	11	41	5	19	-81.2%
Nassau	WestRock #5 Power Boiler <sup>a</sup>	82	68	73	74	9	11	9	10	-86.5%
Nassau	WestRock #5 Recovery Boiler <sup>a</sup>	76	103	113	97	33	103	27	54	-44.3%
Nassau	WestRock #7 Power Boiler <sup>a</sup>	3,314	3,402	3,507	3,408	576	668	464	569	-83.3%

<sup>a</sup> In the Department's DRR modeling for WestRock, only these units were modeled using actual emissions; all other units were modeled using maximum allowable emission rates.