SEP 2 1 2018

Richard Dunn, Director
Georgia Environmental Protection Division
Georgia Department of Natural Resources
4244 International Parkway, Suite 120
Atlanta, Georgia 30354

Dear Mr. Dunn:

I am writing to respond to your request for the U.S. Environmental Protection Agency to terminate requirements under the Data Requirements Rule (DRR)[1] for the sulfur dioxide (SO_2) national ambient air quality standards (NAAQS) for ongoing verification, which apply to the area covering Butts, Crawford, Jasper, Jones, Lamar, Monroe, and Upson Counties (the Juliette Area) in Georgia. Specifically, this is the area surrounding the Georgia Power Robert W. Scherer Power Plant (Plant Scherer). This request to terminate the ongoing data reporting requirements applicable to the area was included in your submittal of updated air quality characterization information, which you transmitted to the EPA on May 22, 2018.

The DRR provides that "[f]or any area where modeling of actual SO_2 emissions serve[s] as the basis for designating such area as attainment for the 2010 SO_2 NAAQS, the air agency shall submit an annual report to the EPA Regional Administrator" providing specified types of information, including a recommendation as to the need for further modeling to assess whether the area is continuing to attain the NAAQS. *See* 40 CFR 51.1205(b). However, "[a]n air agency will no longer be subject to [these requirements] if it provides air quality modeling demonstrating that air quality values at all receptors in the analysis are no greater than 50 percent of the 1-hour SO_2 NAAQS, and such demonstration is approved by the EPA Regional Administrator."

Georgia's September 14, 2015, air quality characterization of the Juliette Area, as supplemented with a February 2, 2016, submittal, included modeling of actual emissions for Plant Scherer and covered the Butts, Crawford, Jasper, Jones, Lamar, Monroe, and Upson Counties (the Juliette Area) to inform round 2 SO_2 designations. The February 2, 2016, modeling indicated that maximum SO_2 concentrations in the Juliette Area were 52.5 parts per billion (ppb), representing 70 percent of the SO_2 NAAQS and showing that there were no expected violations of the NAAQS in the Juliette Area. The EPA designated the Juliette Area as unclassifiable/attainment on June 30, 2016.

Georgia's May 22, 2018, submittal included updated modeling of the most recently available actual emissions (2015–2017) for Plant Scherer showing maximum SO_2 concentrations in the area of 13.7 ppb, representing 18 percent of the SO_2 NAAQS. Georgia explained that this large reduction in maximum modeled impacts is likely due to wet flue gas desulfurization system emissions controls being installed on the four Plant Scherer coal-fired boilers. These emissions controls have resulted in SO_2 emissions

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[1] 40 CFR part 51, subpart BB.

being reduced from 42,355 tons per year (tpy) in 2012 to 1,355 tpy in 2017. The EPA has evaluated this modeling analysis and concludes that it appropriately characterizes SO_2 air quality in this area. The EPA has included its technical assessment of the modeling supporting Georgia's request in the enclosure. Therefore, the EPA agrees that Georgia has provided modeling demonstrating that SO_2 air quality values at all receptors in the Juliette Area are no greater than 50 percent of the NAAQS, and I approve this demonstration. Consequently, no further ongoing verification is required for this area under 40 CFR 51.1205(b).

Thank you for the work your agency has done to support improved air quality. If you have any questions, please contact me at (404) 562-8357 or Beverly Banister, Director of the Air, Pesticides, and Toxics Management Division, at (404) 562-9326.

Sincerely,

Onis "Trey" Glenn, III
Regional Administrator

Enclosure

The EPA's Assessment of the Air Dispersion Modeling Provided by the State of Georgia Environmental Protection Division

The EPA agrees that the modeling information provided by the State for the analysis of the Juliette, GA (Butts County, Crawford County, Jasper County, Jones County, Lamar County, Monroe County, and Upson County) Area affected by the Robert W. Scherer Power Plant (Plant Scherer) facility and other nearby sources is sufficiently representative of current air quality for that area. In accordance with EPA's SO_2 Modeling Technical Assistance Document (TAD), the most recent 3-years of actual hourly emissions (2015–2017) from Plant Scherer and actual stack heights were used in the modeling. The State evaluated offsite SO_2 sources within 70 kilometers (km) of Plant Scherer in any direction and determined that it was not necessary to include any offsite sources in order to adequately characterize air quality in the vicinity of Plant Scherer. Table 1 lists the sources and their emissions. Georgia's determination was based on the most recent emissions for the nearby sources: 2016 for large sources/annual National Emissions Inventory (NEI) reporters and 2014 for smaller sources (triannual NEI reporters). The State calculated the Q/d (emissions (tons per year (tpy))/distance (km)) values for all facilities. All of the resultant Q/d values were less than 20. Therefore, the State only modeled the Plant Scherer facility. Based upon an evaluation of the emissions and the locations of the other sources in the area, the EPA believes that these sources will not cause a significant concentration gradient in the area near Plant Scherer. Therefore, the EPA agrees with Georgia that the impacts from these other sources are adequately represented by inclusion of an appropriate background concentration.

The background monitor that Georgia used in the modeling is the Confederate Avenue monitoring site in Atlanta. The 2015-2017 3-year Design Value of 6 parts per billion (ppb) from this background monitor was used by Georgia. There is a closer SO_2 monitor located in Macon, Bibb County, GA, that appears to be more representative of the area near Plant Scherer. However, the EPA checked the Design Value report for 2015–2017 for both monitors and the Design Value for the Confederate Avenue monitor is 6 ppb and the Design Value for the Macon Bibb County monitor is 5 ppb, so the background monitor that Georgia used is a more conservative value. Additionally, Georgia provided an analysis comparing the total emissions within 20 km of Plant Scherer (0.1 tpy) and within 20 km of the Confederate Avenue monitor (1,099 tpy) indicating that the Design Value from the Confederate Avenue monitor is a conservative estimate of background SO_2 concentration near Plant Scherer. Therefore, the EPA believes that Georgia's use of the Confederate Avenue monitor is acceptable.

The State also chose an appropriate modeling domain that shows the maximum impact from the facility in the Juliette, GA area. The receptor grid, as seen in Figure 1, extends to approximately 50 km from Plant Scherer in all directions. Additional 100-meters (m) fine-grid receptors were added in the area of the maximum modeled impacts (originally modeled with the 500-m grid) in order to better capture the maximum impact. Receptors were placed at 100-m within Plant Scherer's represented ambient air boundary, which is potentially more receptors than recommended, as the SO_2 Modeling TAD specifies that the areas to consider for receptor placement are those areas that would be considered ambient air relative to each modeled facility.

Terrain elevations were sufficiently accounted for by AERMAP. The EPA also agrees that the surface and upper air meteorological data chosen for this analysis are sufficient for a valid modeling analysis.

The State used AERMOD version 16216r with the default regulatory setting, the most current version at the time the modeling was performed by Georgia. The AERMOD modeling parameters for the Juliette area of analysis are summarized below in Table 2. Overall, the EPA agrees that this modeling analysis was performed in a manner consistent with the SO_2 TAD and is sufficient for predicting SO_2 concentrations in the Juliette, GA area. The State's modeling indicates that the highest predicted 99th percentile daily maximum 1-hour concentration within the chosen modeling domain is 35.9 micrograms per cubic meter ($\mu g/m^3$), equivalent to 13.7 ppb. This modeled concentration included the background concentration of SO_2, and is based on 2015–2017 actual emissions from the facility. Figure 2 below indicates that the predicted value occurred approximately 8 km to the northeast of Plant Scherer. The results from the model run indicate that SO_2 concentrations in the area surrounding Plant Scherer are well below 50 percent of the 1-hour SO_2 NAAQS level of 75 ppb (196 $\mu g/m^3$). Therefore, the modeling supports Georgia's request to terminate the requirement to submit future annual reports for the area surrounding Plant Scherer pursuant to 40 CFR 51.1205(b).

Table 1: List of facilities within 70 km of Plant Scherer and their most recent SO$_2$ emissions, Prepared by Georgia EPD, May 22, 2018

EIS Facility ID	Facility Name	Latitude	Longitude	SO$_2$ Emissions (TPY)	distance (km)	Q/d (TPY/km)
20700008	Ga Power Company - Plant Scherer	33.0613	-83.8066	1,984.5	0	N/A
2654311	Anchor Glass Container Corporation	32.5860	-83.5937	317.0	56.4	5.6
15496111	Cherokee Brick & Tile Company	32.8039	-83.6353	146.8	32.7	4.5
2775311	BASF Corporation, Edgar Plant	32.8453	-83.2125	204.7	60.5	3.4
12683711	Carbo Ceramics, Inc. - McIntyre Plant	32.8475	-83.1619	197.7	64.8	3.1
2775211	BASF Corporation, Gordon Plant	32.8808	-83.3389	46.0	48.1	1.0
7414811	Graphic Packaging Macon Mill	32.7726	-83.6301	27.0	36.0	0.7
9760811	Robins AFB Airport	32.6401	-83.5918	25.0	50.9	0.5
2548311	Visy Paper Inc	33.6603	-83.9889	9.8	68.6	0.1
2654211	Interfor South U.S. LLC	32.4509	-83.7312	9.0	68.1	0.1
12583611	Carbo Ceramics, Inc. - Toomsboro Plant	32.8495	-83.1273	7.8	67.7	0.1
1801611	Interfor U.S. Inc.	32.9290	-84.2835	3.7	47.0	0.1
15525911	Edward L. Addison Generating Plant	32.9109	-84.3067	3.0	49.7	0.1
14418411	Brosnan	32.8124	-83.6255	1.8	32.4	0.1
15560111	Mid-Georgia Cogen LP	32.4848	-83.6037	3.1	66.7	0.0
2654411	Ga Power Company - Robins	32.5806	-83.5831	1.9	57.3	0.0
15562111	Jordan Forest Products	33.0796	-84.2011	1.2	36.9	0.0
14478911	Macon	32.7942	-83.6273	1.1	34.0	0.0

Figure 1: Receptor Grid for Juliette Area of Analysis. Source: "GA EPD Dispersion Modeling to Fulfill Annual Reporting Requirements for the 2010 1-Hour SO2 NAAQS: Georgia Power - Plant Scherer" Prepared by Georgia EPD, May 22, 2018
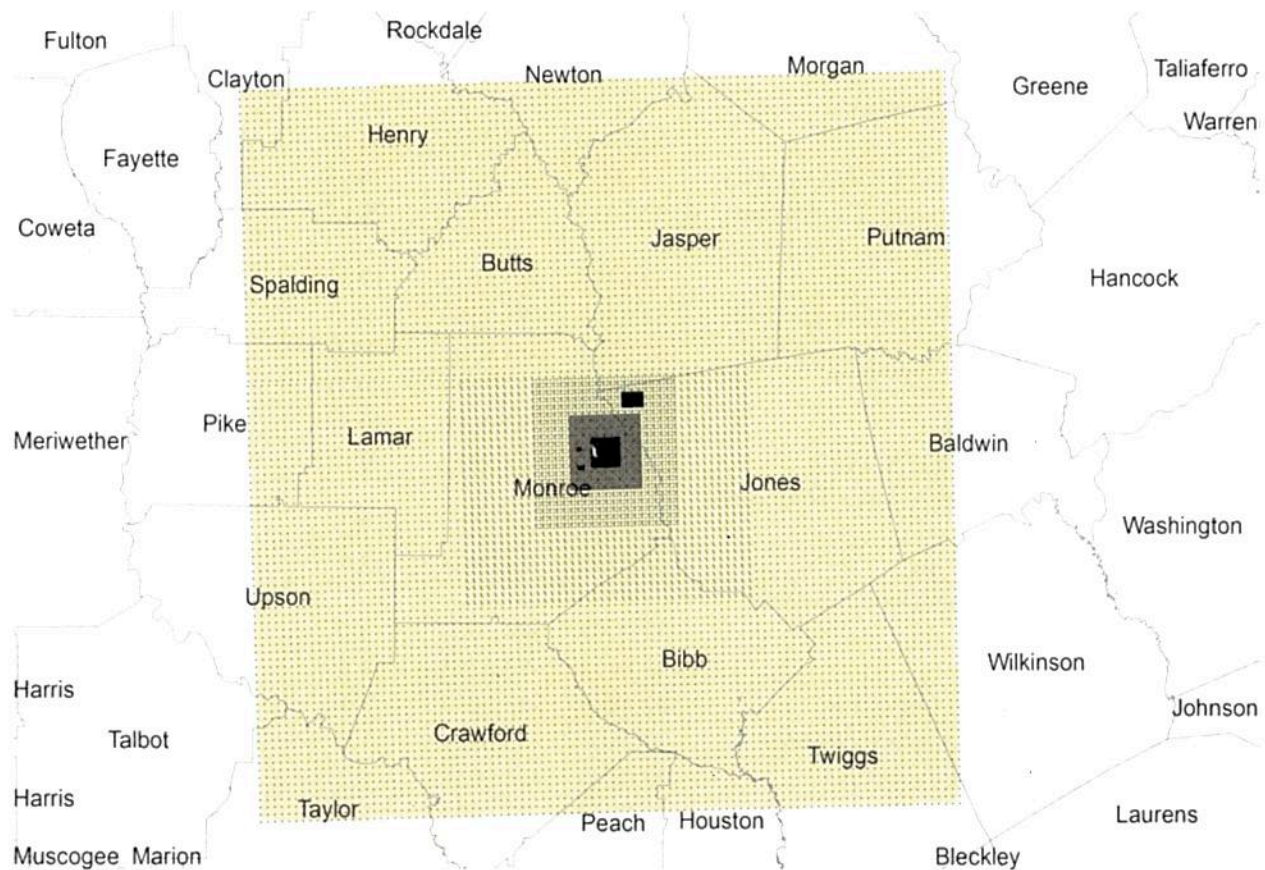
Table 2: Summary of AERMOD Modeling Input Parameters for the Juliette Area of Analysis

Input Parameter	Value
AERMOD Version	16216r
Dispersion Characteristics	Rural
Modeled Sources	1
Modeled Stacks	4
Modeled Structures	6
Modeled Fencelines	0
Total receptors	16,201
Emissions Type	Actual
Emissions Years	2015-2017
Meteorology Years	2015-2017
NWS Station for Surface Meteorology	Middle Georgia Regional Airport NWS station, Macon, Georgia
NWS Station Upper Air Meteorology	Peachtree City, Georgia
NWS Station for Calculating Surface Characteristics	Middle Georgia Regional Airport NWS station, Macon, Georgia
Methodology for Calculating Background SO_2 Concentration	1st tier – monitored design value, Confederate Ave monitor, Atlanta, Georgia
Calculated Background SO_2 Concentration	6 ppb (15.7 $\mu g/m^3$)

Figure 2: Maximum Predicted 99th Percentile 1-Hour SO$_2$ Concentrations in the Juliette Area of Analysis Based on Actual Emissions. Source: "GA EPD Dispersion Modeling to Fulfill Annual Reporting Requirements for the 2010 1-Hour SO2 NAAQS: Georgia Power - Plant Scherer" Prepared by Georgia EPD, May 22, 2018