

**ENVIRONMENTAL PROTECTION DIVISION** 

**Richard E. Dunn, Director** 

Air Protection Branch 4244 International Parkway, Suite 120 Atlanta, Georgia 30354 404-363-7000

MAY **2 2 2018** 

Mr. Trey Glenn Regional Administrator U.S. EPA, Region 4 61 Forsyth Street, SW Atlanta, Georgia 30303-8909

# **RE:** Request to Remove the Georgia Power-Plant Scherer Annual Reporting Requirement under EPA's Data Requirements Rule for the 2010 1-Hour SO<sub>2</sub> NAAQS

Dear Mr. Glenn,

On July 12, 2016 (FR 81 45039), the U.S. Environmental Protection Agency (EPA) designated Juliette, GA (Butts County, Crawford County, Jasper County, Jones County, Lamar County, Monroe County, and Upson County) as Unclassifiable/Attainment with an effective date of September 12, 2016. This designation was based on 2012-2014 modeling submitted to EPA by the Georgia Environmental Protection Division (EPD), which demonstrated that SO<sub>2</sub> emissions from Plant Scherer do not cause or contribute to any exceedances of the 1-hour SO<sub>2</sub> NAAQS. The Data Requirements Rule (DRR) for the 2010 1-hour SO<sub>2</sub> primary NAAQS (FR 80 51052) states:

"For any area where modeling of actual  $SO_2$  emissions serve 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 by July 1 of each year, either as a stand-alone document made available for public inspection, or as an appendix to its Annual Monitoring Network Plan (also due on July 1 each year under 40 CFR 58.10), that documents the annual  $SO_2$  emissions of each applicable source in each such area and provides an assessment of the cause of any emissions increase from the previous year. The first report for each such area is due by July 1 of the calendar year after the effective date of the area's initial designation."

On June 26, 2017, EPD submitted a report to EPA with 2015 and 2016 annual  $SO_2$  emissions for Plant Scherer to meet the annual reporting requirement. In addition, the  $SO_2$  DRR states:

"An air agency will no longer be subject to the requirements of this paragraph (b) for a particular area 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 SO2 NAAQS, and such demonstration is approved by the EPA Regional Administrator."

Accordingly, EPD has updated the dispersion modeling for Plant Scherer with 2015-2017 actual emissions and meteorological data and demonstrated that the  $SO_2$  concentrations at all receptors in the analysis are no greater than 50 percent of the 1-hour  $SO_2$  NAAQS. Therefore, EPD requests your

Plant Scherer Annual Reporting Requirement for the 2010 1-Hour SO<sub>2</sub> NAAQS Page 2

approval to remove the Georgia Power-Plant Scherer annual reporting requirement under EPA's Data Requirements Rule for the 2010 1-hour SO<sub>2</sub> NAAQS.

A copy of this letter and the attached modeling report are available for public inspection at 4244 International Parkway, Suite 120, Atlanta, GA 30354. In addition, the public can inspect an electronic version of this letter and the attached modeling report at: <u>https://epd.georgia.gov/air/documents/georgia-power-plant-scherer-annual-report-data-requirements-rule-2010-1-hour-so2-naaqs</u>.

Should you or your staff have any questions or comments, please feel free to contact Jim Boylan at James.Boylan@dnr.ga.gov or 404-363-7014.

Sincerely. 5 E

Richard E. Dunn Director Georgia Environmental Protection Division

**RED:DT** 

c: Scott Davis, EPA Region 4 Lynorae Benjamin, EPA Region 4 Karen Hays, Branch Chief, EPA Air Protection Branch

Attachment

## GA EPD Dispersion Modeling to Fulfill Annual Reporting Requirements for the 2010 1-Hour SO<sub>2</sub> NAAQS: Georgia Power - Plant Scherer May 22, 2018

On July 12, 2016, the U.S. Environmental Protection Agency (EPA) designated Juliette, GA (Butts County, Crawford County, Jasper County, Jones County, Lamar County, Monroe County, and Upson County) as Unclassifiable/Attainment. This designation was based on 2012-2014 modeling submitted to EPA by the Georgia Environmental Protection Division (EPD). The SO<sub>2</sub> Data Requirements Rule (DRR) states:

"For any area where modeling of actual SO<sub>2</sub> emissions serve as the basis for designating such area as attainment for the 2010 SO<sub>2</sub> NAAQS, the air agency shall submit an annual report to the EPA Regional Administrator by July 1 of each year, either as a stand-alone document made available for public inspection, or as an appendix to its Annual Monitoring Network Plan (also due on July 1 each year under 40 CFR 58.10), that documents the annual SO<sub>2</sub> emissions of each applicable source in each such area and provides an assessment of the cause of any emissions increase from the previous year. The first report for each such area is due by July 1 of the calendar year after the effective date of the area's initial designation."

On June 26, 2017, EPD submitted a report to EPA with 2015 and 2016 annual  $SO_2$  emissions for Plant Scherer to meet the annual reporting requirement. In addition, the  $SO_2$  DRR states:

"An air agency will no longer be subject to the requirements of this paragraph (b) for a particular area 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 SO2 NAAQS, and such demonstration is approved by the EPA Regional Administrator."

Accordingly, EPD has updated the dispersion modeling for Plant Scherer with 2015-2017 actual emissions and meteorological data to demonstrate that the  $SO_2$  concentrations at all receptors in the analysis are no greater than 50 percent of the 1-hour  $SO_2$  NAAQS. The dispersion modeling was conducted using AERMET (v16216) and AERMOD (v16216r) in accordance with the final DRR and Modeling Technical Assistance Document (TAD).

Table 1 contains the SO<sub>2</sub> emissions from Plant Scherer that were used in the original designation modeling (2012-2014), the SO<sub>2</sub> emissions from Plant Scherer that were used in this updated modeling (2015-2017), and EPA's Clean Air Markets Division (CAMD) SO<sub>2</sub> emissions (2012-2017). The 2015-2017 SO<sub>2</sub> emissions used in this updated modeling are considerably less than

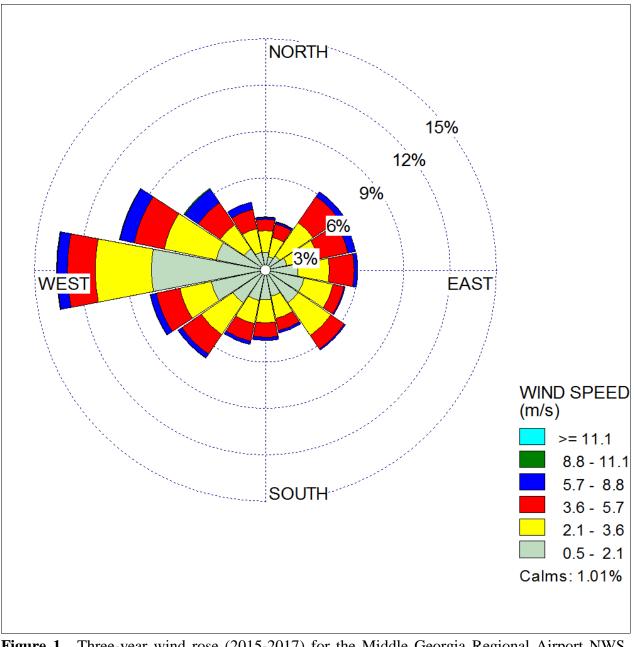
the 2012-2014  $SO_2$  emissions used in the original designation modeling. The 2015-2017  $SO_2$  emissions exactly match those reported to EPA's CAMD database.

Calendar Year	CAMD SO <sub>2</sub> Emissions (Tons/year)	Modeled SO <sub>2</sub> Emissions (Tons/year)
2012	42,349.2	42,354.9
2013	24,074.6	24,078.5
2014	5,175.5	5,181.0
2015	1,618.3	1,618.3
2016	1,984.5	1,984.5
2017	1,355.1	1,355.1

Table 1. SO<sub>2</sub> emissions (TPY) from Plant Scherer.

#### **INPUT DATA**

**Meteorological Data** – Since no on-site meteorological data was available, the hourly meteorological data of surface and upper air observations from Middle Georgia Regional Airport, GA (surface) and Peachtree City Airport, GA (upper) NWS station for the period of 2015-2017 were used in this modeling. The AERMET processor (v16216) was used to convert the NWS data into AERMOD model-ready meteorological data files using the AERSURFACE surface characteristics evaluation utility (v13016). Values of the surface characteristics (albedo, Bowen ratio, and surface roughness) surrounding the Middle Georgia Regional Airport, GA NWS surface station and the project site were derived for each of twelve 30-degree sectors over four seasons in accordance with the AERMOD Implementation Guide (09078). A comparison of the surface characteristics between the Middle Georgia Regional Airport NWS station and the facility site is shown in Table 2. No significant differences in the albedo, Bowen ratio, and surface characteristics from the Middle Georgia Regional Airport NWS station. According to the 3-year wind rose (2015-2017) for the Middle Georgia Regional Airport NWS station. According to the 3-year wind rose (2015-2017) for the Middle Georgia Regional Airport NWS station.



**Figure 1**. Three-year wind rose (2015-2017) for the Middle Georgia Regional Airport NWS Station.

Regional Airport NWS station and the Plant Scherer facility site.								
		Middle Georgia Regional Airport NWS Station			Plant Scherer Facility Site			
Time	Wind		Bowen	Surface		Bowen	Surface	
Frequency	Sector	Albedo	Ratio	Roughness	Albedo	Ratio	Roughness	
Winter	1 of 12	0.16	0.58	0.018	0.15	0.64	0.204	
Winter	2 of 12	0.16	0.58	0.016	0.15	0.64	0.107	
Winter	3 of 12	0.16	0.58	0.026	0.15	0.64	0.027	
Winter	4 of 12	0.16	0.58	0.030	0.15	0.64	0.040	
Winter	5 of 12	0.16	0.58	0.041	0.15	0.64	0.187	
Winter	6 of 12	0.16	0.58	0.036	0.15	0.64	0.028	
Winter	7 of 12	0.16	0.58	0.024	0.15	0.64	0.029	
Winter	8 of 12	0.16	0.58	0.039	0.15	0.64	0.109	
Winter	9 of 12	0.16	0.58	0.016	0.15	0.64	0.167	
Winter	10 of 12	0.16	0.58	0.036	0.15	0.64	0.223	
Winter	11 of 12	0.16	0.58	0.062	0.15	0.64	0.143	
Winter	12 of 12	0.16	0.58	0.042	0.15	0.64	0.179	
Spring	1 of 12	0.15	0.39	0.025	0.14	0.50	0.238	
Spring	2 of 12	0.15	0.39	0.023	0.14	0.50	0.127	
Spring	3 of 12	0.15	0.39	0.036	0.14	0.50	0.032	
Spring	4 of 12	0.15	0.39	0.042	0.14	0.50	0.047	
Spring	5 of 12	0.15	0.39	0.055	0.14	0.50	0.254	
Spring	6 of 12	0.15	0.39	0.045	0.14	0.50	0.031	
Spring	7 of 12	0.15	0.39	0.030	0.14	0.50	0.032	
Spring	8 of 12	0.15	0.39	0.050	0.14	0.50	0.135	
Spring	9 of 12	0.15	0.39	0.023	0.14	0.50	0.208	
Spring	10 of 12	0.15	0.39	0.050	0.14	0.50	0.263	
Spring	11 of 12	0.15	0.39	0.085	0.14	0.50	0.178	
Spring	12 of 12	0.15	0.39	0.057	0.14	0.50	0.207	
Summer	1 of 12	0.17	0.40	0.034	0.14	0.27	0.350	
Summer	2 of 12	0.17	0.40	0.039	0.14	0.27	0.162	
Summer	3 of 12	0.17	0.40	0.104	0.14	0.27	0.039	
Summer	4 of 12	0.17	0.40	0.187	0.14	0.27	0.060	
Summer	5 of 12	0.17	0.40	0.182	0.14	0.27	0.420	
Summer	6 of 12	0.17	0.40	0.098	0.14	0.27	0.039	
Summer	7 of 12	0.17	0.40	0.063	0.14	0.27	0.039	
Summer	8 of 12	0.17	0.40	0.087	0.14	0.27	0.185	
Summer	9 of 12	0.17	0.40	0.055	0.14	0.27	0.250	
Summer	10 of 12	0.17	0.40	0.108	0.14	0.27	0.315	
Summer	11 of 12	0.17	0.40	0.117	0.14	0.27	0.253	
Summer	12 of 12	0.17	0.40	0.082	0.14	0.27	0.287	
Fall	1 of 12	0.17	0.58	0.029	0.14	0.64	0.350	
Fall	2 of 12	0.17	0.58	0.032	0.14	0.64	0.162	
Fall	3 of 12	0.17	0.58	0.095	0.14	0.64	0.039	
Fall	4 of 12	0.17	0.58	0.186	0.14	0.64	0.060	
Fall	5 of 12	0.17	0.58	0.180	0.14	0.64	0.420	
Fall	6 of 12	0.17	0.58	0.097	0.14	0.64	0.039	
Fall	7 of 12	0.17	0.58	0.062	0.14	0.64	0.039	
Fall	8 of 12	0.17	0.58	0.083	0.14	0.64	0.185	
Fall	9 of 12	0.17	0.58	0.047	0.14	0.64	0.250	
Fall	10 of 12	0.17	0.58	0.097	0.14	0.64	0.315	
Fall	11 of 12	0.17	0.58	0.104	0.14	0.64	0.253	
Fall	12 of 12	0.17	0.58	0.072	0.14	0.64	0.287	

**Table 2.** Comparisons of albedo, Bowen ratio, and surface roughness at the Middle Georgia Regional Airport NWS station and the Plant Scherer facility site.

**Source Data** – Plant Scherer is an electric power generation plant with four sub-critical pulverized coal-fired boilers (Units 1, 2, 3, and 4). Each unit is equipped with selective catalytic reduction (SCR), cold-side electrostatic precipitator (ESP), activated carbon injection (ACI), baghouse, and wet flue gas desulfurization (FGD) systems (scrubbers). Units 1 and 2 exhaust to an 870-foot scrubber stack and Units 3 and 4 exhaust to 847-foot scrubber stack. During normal operations, the units exhaust through the scrubber stacks. However, there are some periods of time during which a scrubber is not in operation. In these cases, the units will exhaust through one of two 1000-foot bypass stacks that were in existence prior to installation of the scrubbers. Actual hourly emissions, temperatures, and flow rates for the most recent three calendar years (2015-2017) provided by Georgia Power were used in the modeling. This information was also reported to EPA's Clean Air Markets Division (CAMD) under the Acid Rain Program using continuous emission monitoring systems (CEMS) certified according to 40 CFR Part 75. Figures 2-4 show the hourly SO<sub>2</sub> emission rates (g/s) that were modeled through each stack for SCH12BYP, SCH12FGD, SCH34BYP, and SCH34FGD in 2015, 2016, and 2017.

**Receptor Locations** – A comprehensive Cartesian receptor grid extending to approximately 50 km from the Plant Scherer in all directions was used in the AERMOD modeling analysis to assess ground-level  $SO_2$  concentrations. The Cartesian receptors were placed according to the following configuration based on the center of the Plant Scherer:

- $0 \text{ km} 2 \text{ km} \rightarrow 100 \text{ meters apart}$
- $2 \text{ km} 3 \text{ km} \rightarrow 250 \text{ meters apart}$
- 3 km − 10 km → 500 meters apart
- 10 km − 50 km → 1,000 meters apart

Receptors were also placed at 100-m intervals within Plant Scherer's ambient air boundary, although the  $SO_2$  Modeling TAD specifies that receptors need not be placed at locations where it is not feasible to place a monitor (e.g., water bodies and within facility property lines). The receptor grid conservatively simulates all areas including within the facility's ambient air boundary that is not generally accessible to the public. Additional 100-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. All receptor locations are represented in the Universal Transverse Mercator projections, Zone 17, North American Datum 1983. Figure 5 shows the modeling domain and receptor locations.

**Terrain Elevation** – Terrain data from USGS 1-sec National Elevation Dataset (NED) CONUS were extracted to obtain the elevations of receptors by AERMAP terrain processor (version 11103). The resulting elevation data were verified by comparing contoured receptor elevations with USGS 7.5-minute topographic map contours. The area in the vicinity of Plant Scherer is generally characterized as simple terrain relative to the Units 1-4 scrubbed and bypass stacks.

**Building Downwash** – The effects of building downwash were incorporated into the AERMOD analysis. Direction-specific building parameters required by AERMOD were developed using the BPIP PRIME utility (version 04274).

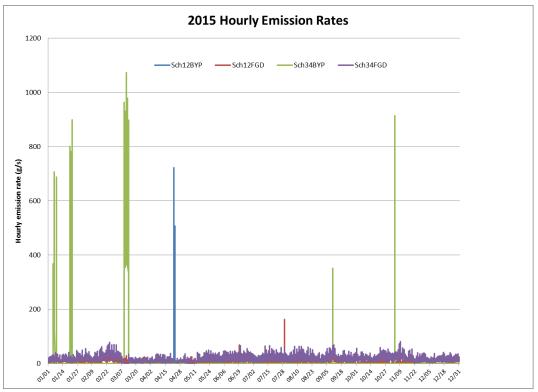


Figure 2. Hourly (2015) SO<sub>2</sub> emission rates (g/s) modeled through each stack for Plant Scherer.

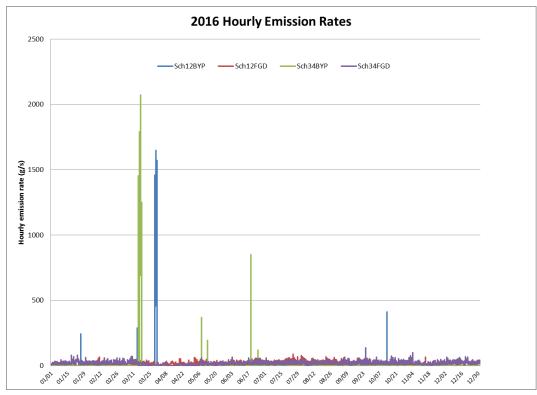


Figure 3. Hourly (2016) SO<sub>2</sub> emission rates (g/s) modeled through each stack for Plant Scherer.

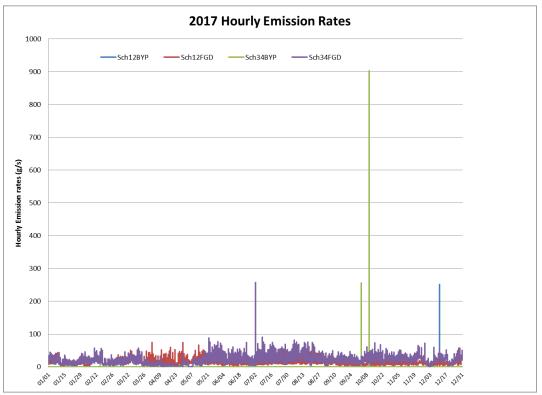


Figure 4. Hourly (2017) SO<sub>2</sub> emission rates (g/s) modeled through each stack for Plant Scherer.

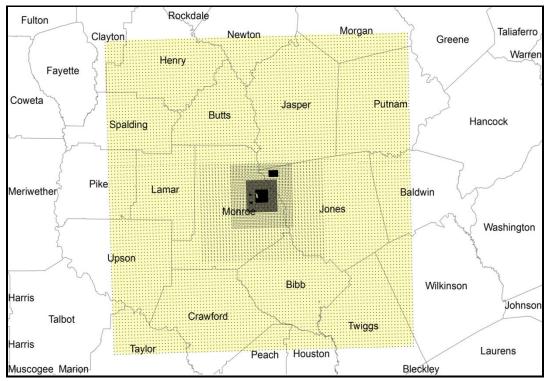
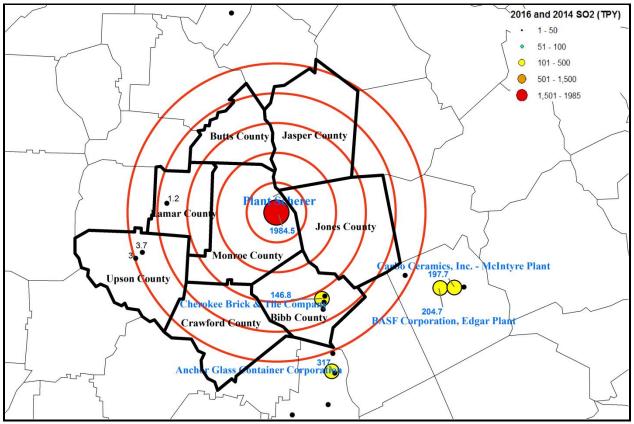


Figure 5. Modeling domain and receptor locations for the Plant Scherer SO<sub>2</sub> modeling.

**Offsite Emission Inventory** – Figure 6 contains a spatial map of the most recent annual  $SO_2$  emissions for offsite sources near Plant Scherer. The most recent  $SO_2$  emissions for large sources (annual NEI reporters) is 2016 and the most recent  $SO_2$  emissions for smaller sources (triannual NEI reporters) is 2014. Table 3 contains a detailed list of facilities within 70 km from Plant Scherer and the emission (TPY)/distance (km), or Q/d. All Q/d values are less than 20. Therefore, no offsite sources are included in the modeling analysis.

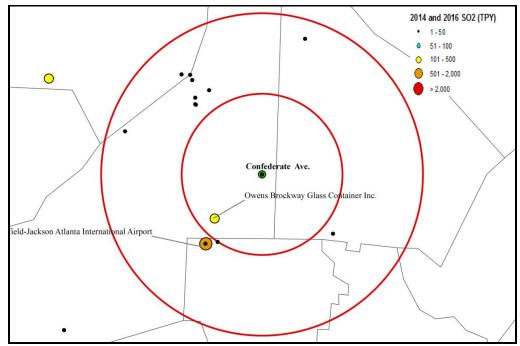


**Figure 6.** Map of the most recent (2014 or 2016)  $SO_2$  emissions (TPY) from offsite sources near Plant Scherer. Red circles are placed in 10 km increments out to 50 km.

EIS Facility ID	Facility Name	Latitude	Longitude	SO <sub>2</sub> Emissions (TPY)	distance (km)	Q/d (TPY/km)
	Ga Power Company - Plant					
20700008	Scherer	33.0613	-83.8066	1,984.5	0	N/A
	Anchor Glass Container					
2654311	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
	Carbo Ceramics, Inc McIntyre					
12683711	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
	Carbo Ceramics, Inc Toomsboro					
12583611	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
	Edward L. Addison Generating					
15525911	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

**Table 3.** List of facilities within 70 km of Plant Scherer and the most recent  $SO_2$  emission (TPY)/distance (km), or Q/d.

**Background Concentration** – EPD using a background SO<sub>2</sub> concentration of 6 ppb (15.7  $\mu$ g/m<sup>3</sup>) based on 2015-2017 SO<sub>2</sub> monitoring data from the Confederate Avenue monitoring site (13-121-0055). The 2015-2017 three year design value for this monitor is 6 ppb (15.7  $\mu$ g/m<sup>3</sup>). Figure 7 contains a spatial map of the most recent SO<sub>2</sub> emissions (TPY) within 20 km of the Confederate Avenue SO<sub>2</sub> monitor. The most recent SO<sub>2</sub> emissions for large sources (annual NEI reporters) is 2016 and the most recent SO<sub>2</sub> emissions for smaller sources (triannual NEI reporters) is 2014. Table 4 contains a detailed list of facilities within 20 km of the Confederate Avenue SO<sub>2</sub> monitor and the emission (TPY)/distance (km), or Q/d. The total SO<sub>2</sub> emissions within 20 km of the Confederate SO<sub>2</sub> monitor is 1,099 TPY. Therefore, the 3-year design value from the Confederate Avenue SO<sub>2</sub> monitor will be a conservative estimate of background SO<sub>2</sub> concentrations near Plant Scherer.



**Figure 7.** Map of most recent (2014 or 2016)  $SO_2$  emissions (TPY) from offsite sources near the Confederate Avenue  $SO_2$  monitor. Red circles are placed in 10 km increments out to 20 km.

<b>Table 4.</b> List of facilities within 20 km of the Confederate Avenue SO <sub>2</sub> monitor and the
emission (TPY)/distance (km), or Q/d.

EIS Facility ID	Facility Name	Latitude	Longitude	SO <sub>2</sub> Emissions (TPY)	distance (km)	Q/d (TPY/km)
	Hartsfield-Jackson Atlanta					
9748811	International Airport	33.6407	-84.4297	759	11	68
	Owens Brockway Glass					
536111	Container Inc.	33.6694	-84.4191	242	8	30
	Ga Power Company - Plant					
3699211	McDonough/Atkinson	33.8292	-84.4698	38	16	2
	Owens Corning Roofing And					
4304011	Asphalt, Llc	33.7635	-84.5430	23	18	1
	Delta Air Lines Inc - Technical					
536511	Operations Center	33.6433	-84.4139	10	10	1
	Hartsfield-Jackson Atlanta					
17010111	International Airport	33.6409	-84.4302	10	11	1
10678611	Seminole Road MSW Landfill	33.6567	-84.2599	3	11	0
14419011	INMANN	33.7958	-84.4493	2	12	0
14478611	HOWELLS	33.8126	-84.4322	2	12	0
	RM Clayton Water Reclamation					
8499911	Center	33.8233	-84.4553	2	15	0
9740111	Dekalb-Peachtree	33.8736	-84.3057	2	18	0
14479011	TILFORD	33.7964	-84.4500	1	12	0
16961911	Sutton R L Wpcp	33.8291	-84.4582	1	15	0

### **<u>1-HOUR SO<sub>2</sub> NAAQS ASSESSMENT</u>**

The total SO<sub>2</sub> concentrations were calculated as the sum of the modeled concentrations due to SO<sub>2</sub> emissions from Plant Scherer and the background SO<sub>2</sub> concentration (6 ppb, 15.7  $\mu$ g/m<sup>3</sup>) to assess compliance with the 1-hour SO<sub>2</sub> NAAQS as part of the 1-hour SO<sub>2</sub> NAAQS analysis. The modeled design concentration was calculated by AERMOD (v16216r) using actual hourly emissions from 2015-2017.

The three-year average of the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> highest daily maximum 1-hour SO<sub>2</sub> concentrations is contained in Table 5. Tables 6 and 7 contain the modeling results in  $\mu g/m^3$  and ppb, respectively. The 4<sup>th</sup> highest 1-hour SO<sub>2</sub> concentration averaged over three years is 13.7 ppb (35.9  $\mu g/m^3$ ) including both the modeled SO<sub>2</sub> impacts from Plant Scherer (7.7 ppb = 20.2  $\mu g/m^3$ ) and the background SO<sub>2</sub> concentration from the Confederate Avenue monitor (6 ppb = 15.7  $\mu g/m^3$ ).

As seen in Figure 8, the  $4^{th}$  highest daily maximum 1-hour SO<sub>2</sub> concentration averaged over 3years for SO<sub>2</sub> was located at approximately 8 kilometers northeast of Plant Scherer.

The result from model run indicates that  $SO_2$  emissions from Plant Scherer do not cause or contribute to any violations of the 1-hour SO<sub>2</sub> NAAQS and are well below 50 percent of the SO<sub>2</sub> NAAQS level of 75 ppb (196 µg/m<sup>3</sup>).

**Table 5**. Summary of 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> highest 1-hour SO<sub>2</sub> modeled impacts averaged over 3 years (2015-2017).

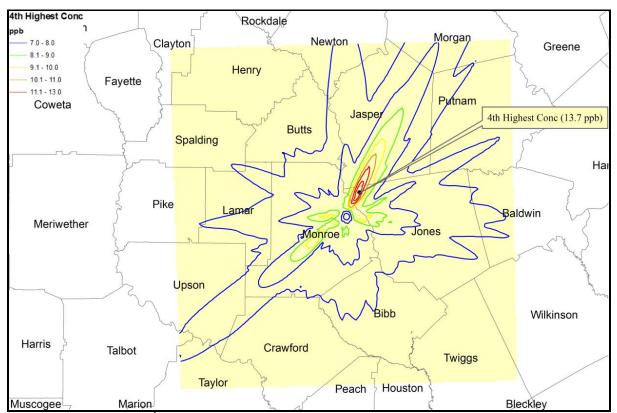
Rank	3-year Average (ppb)	2015 (ppb)	2016 (ppb)	2017 (ppb)	Receptor (lat, log)	Distance from Plant Scherer (km)
1 <sup>st</sup> High	29.4	34.0	44.9	9.5	33.0302, -83.8490	4.97
2 <sup>nd</sup> High	19.9	25.6	25.4	8.9	33.0754, -83.8451	3.81
3 <sup>rd</sup> High	17.6	20.4	23.8	8.4	33.0679, -83.8770	6.5
4 <sup>th</sup> High	13.7	16.7	16.2	8.3	33.1236, -83.7663	8.03

**Table 6.** Summary of 1-hour SO<sub>2</sub> NAAQS ( $\mu$ g/m<sup>3</sup>) analysis.

SO <sub>2</sub> Average Period	SO <sub>2</sub> Model Design Concentration (µg/m <sup>3</sup> )	$SO_2 Background Concentration (\mu g/m3)$	SO <sub>2</sub> Total Concentration (µg/m <sup>3</sup> )	SO <sub>2</sub> NAAQS (µg/m <sup>3</sup> )	Below 50% of SO <sub>2</sub> NAAQS (Y/N)
1-hour	20.2	15.7	35.9	196	Y

SO <sub>2</sub> Average Period	SO <sub>2</sub> Model Design Concentration (ppb)	SO <sub>2</sub> Background Concentration (ppb)	SO <sub>2</sub> Total Concentration (ppb)	SO <sub>2</sub> NAAQS (ppb)	Below 50% of SO <sub>2</sub> NAAQS (Y/N)
1-hour	7.7	6.0	13.7	75	Y

**Table 7.** Summary of 1-hour SO<sub>2</sub> NAAQS (ppb) analysis.



**Figure 8.** Plot of the 4<sup>th</sup> highest daily maximum 1-hour SO<sub>2</sub> (ppb) averaged over 3 years.

#### **CONCLUSIONS**

To meet the annual reporting requirements for the 2010 1-Hour SO<sub>2</sub> NAAQS, dispersion modeling for Georgia Power's Plant Scherer was conducted in accordance with the final Data Requirements Rule (DRR) and Modeling Technical Assistance Document (TAD) using the most recently available information. The modeled SO<sub>2</sub> impacts using 2015-2017 hourly SO<sub>2</sub> emissions from Plant Scherer and 2015-2017 meteorology were 13.7 ppb. Therefore, SO<sub>2</sub> emissions from Plant Scherer do not cause or contribute to any violations of the 1-hour SO<sub>2</sub> NAAQS in the Juliette area (Butts County, Crawford County, Jasper County, Jones County, Lamar County, Monroe County, and Upson County). In addition, the SO<sub>2</sub> concentrations at all receptors in the analysis are no greater than 50 percent of the 1-hour SO<sub>2</sub> NAAQS. Therefore, EPD will no longer be required to submit future annual reports for the area surrounding Plant Scherer.