

§ 165.T01–0404 Safety Zone; Hackensack River, Kearny and Secaucus, NJ.

(a) *Location.* The following area is a safety zone: All the navigable waters of the Hackensack River between the New Jersey Turnpike/I–95 Fixed Bridge (River Mile 5.3) and 150 feet south of the existing Portal Bridge (River Mile 5.0).

(b) *Definitions.* As used in this section, *designated representative* means a Coast Guard Patrol Commander, including a Coast Guard coxswain, petty officer, or other officer operating a Coast Guard vessel and a Federal, State, and local officer designated by or assisting the Captain of the Port New York (COTP) in the enforcement of the safety zone.

(c) *Regulations.* (1) Under the general safety zone regulations in subpart C of this part, you may not enter the safety zone described in paragraph (a) of this section unless authorized by the COTP or the COTP's designated representative.

(2) To seek permission to enter, contact the COTP or the COTP's representative via VHF Channel 16 or by phone at (718) 354–4353 (Sector New York Command Center). Those in the safety zone must comply with all lawful orders or directions given to them by the COTP or the COTP's designated representative.

(d) *Enforcement period.* This section is effective from November 21, 2024, through December 31, 2025, but will only be enforced during periods when heavy lift operations at the new bridge are in progress. The Coast Guard will make notice of this safety zone via the Local Notice to Mariners and issue a Broadcast Notice to Mariners via marine channel 16 (VHF–FM) as soon as practicable. In addition, if the project is completed before December 31, 2025, enforcement of the safety zone will be suspended, and notice given via Local Notice to Mariners.

Jonathan A. Andrechik,

Captain, U.S. Coast Guard, Captain of the Port Sector New York.

[FR Doc. 2024–27429 Filed 11–19–24; 4:15 pm]

BILLING CODE 9110–04–P

ENVIRONMENTAL PROTECTION AGENCY
40 CFR Part 52

[EPA–R04–OAR–2023–0220; FRL–10407–02–R4]

Air Plan Approval; Georgia; Second Period Regional Haze Plan

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is approving the regional haze State Implementation Plan (SIP) revision submitted by Georgia Department of Natural Resources, Environmental Protection Division (GA EPD), dated August 11, 2022 (“Haze Plan” or “2022 Plan”), as satisfying applicable requirements under the Clean Air Act (CAA or Act) and EPA’s Regional Haze Rule (RHR) for the regional haze program’s second planning period. Georgia’s SIP submission addresses the requirement that states must periodically revise their long-term strategies (LTS) for making reasonable progress toward the national goal of preventing any future, and remedying any existing, anthropogenic impairment of visibility, including regional haze, in mandatory Class I Federal areas (hereinafter referred to as “Class I areas”). The SIP submission also addresses other applicable requirements for the second planning period of the regional haze program. EPA is taking this action pursuant to sections 110 and 169A of the Act.

DATES: This rule is effective December 23, 2024.

ADDRESSES: EPA has established a docket for this action under Docket Identification No. EPA–R04–OAR–2023–0220. All documents in the docket are listed on the *regulations.gov* website. Although listed in the index, some information may not be publicly available, *i.e.*, Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through *www.regulations.gov* or in hard copy at the Air Regulatory Management Section, Air Planning and Implementation Branch, Air and Radiation Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street SW, Atlanta, Georgia 30303–8960. EPA requests that, if at all possible, you contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section to schedule your inspection. The Regional Office’s official hours of business are Monday through Friday, 8:30 a.m. to 4:30 p.m., excluding Federal holidays.

FOR FURTHER INFORMATION CONTACT:

Estelle Bae, Air Permitting Section, Air Planning and Implementation Branch, Air and Radiation Division, Region 4, U.S. Environmental Protection Agency, 61 Forsyth Street SW, Atlanta, Georgia

30303–8960. The telephone number is (404) 562–9143. Ms. Bae can also be reached via electronic mail at *bae.estelle@epa.gov*.

SUPPLEMENTARY INFORMATION:

I. Background

On August 11, 2022, GA EPD submitted a revision to its SIP to address regional haze for the second planning period.^{1 2} GA EPD made this SIP submission to satisfy the requirements of the CAA’s regional haze program pursuant to CAA sections 169A and 169B and 40 Code of Federal Regulations (CFR) 51.308. EPA has determined that the Georgia regional haze SIP submission for the second planning period meets the applicable statutory and regulatory requirements and is thus approving Georgia’s submission into its SIP.

Through a notice of proposed rulemaking (NPRM), published on June 3, 2024 (89 FR 47481), EPA proposed to approve Georgia’s Haze Plan as satisfying the regional haze requirements for the second planning period contained in the CAA and 40 CFR 51.308. EPA described its rationale for proposing approval of the Haze Plan in the June 3, 2024, NPRM. Comments on the June 3, 2024, NPRM were due on or before July 3, 2024. EPA received two sets of comments on the NPRM. One set of comments received is not relevant to this action, and the other set of comments is addressed below. Both sets of comments are available in the docket for this action.

II. Response to Comments

In response to the NPRM, EPA received a comment letter signed by the National Parks Conservation Association (NPCA), Sierra Club, the Coalition to Protect America’s National Parks, and the Southern Environmental Law Center. Collectively, these groups will be referred to as the “Commenters.” In general, the Commenters state in their comment letter that Georgia, in its SIP submittal, and EPA, in its proposed approval of the SIP submittal, failed to

¹ The August 11, 2022, SIP submission, with exception of the supporting modeling files and CBI, is included in the docket for this rulemaking. Due to size and compatibility limitations of the Federal Docket Management System, the supporting modeling files for Georgia’s Regional Haze Plan are instead available at the EPA Region 4 office. To request these files, please contact the person listed in this rulemaking under the section titled **FOR FURTHER INFORMATION CONTACT**.

² On November 1, 2023, Georgia supplemented its August 11, 2022, Haze Plan by submitting the final permits for each of the three sources selected for an emissions control analysis. This supplemental submission, received November 1, 2023, along with GA EPD’s November 17, 2023, clarification email, is included in the docket for this action.

satisfy the requirements of the Act and the RHR. The Commenters thus request that EPA disapprove Georgia's SIP revision. Summaries of the significant comments received from the Commenters and EPA's responses to these comments are below.

Comment 1: The Commenters state that in 2021 they informed the Visibility Improvement State and Tribal Association of the Southeast (VISTAS) and EPA via letter of "significant errors" in the visibility modeling conducted by VISTAS for the VISTAS states—including Georgia—and that EPA did not acknowledge these errors in the NPRM. These alleged errors are addressed in Comments 1.a through 1.c below.

Comment 1a: The Commenters contend that the VISTAS modeling significantly underpredicted the contribution of sulfates to visibility impairment at Class I areas on the 20 percent most impaired days and that this underprediction, while prevalent across all seasons, was largest during the summer months.³ The Commenters also assert that these errors resulted in the modeling not meeting VISTAS' model performance goals and modeling acceptance criteria for a number of Class I areas. The Commenters further assert that although Georgia claims that it corrected for this underprediction through the use of relative response factors (RRFs), neither Georgia nor EPA assessed whether use of RRFs adequately corrected for errors in the modeling.

Response 1.a: Regarding the 2021 letter described by the Commenters,⁴ EPA disagrees with the Commenters that there are significant flaws in Georgia's 2028 visibility modeling that resulted in excluding major sources of haze-forming pollution from evaluation via Four-Factor Analyses (FFAs) for the second planning period. As the Commenters state, Georgia relied upon the photochemical visibility modeling performed by VISTAS to project the impact of the State's 2028 sulfur dioxide (SO₂) and nitrogen oxide (NO_x) emissions on visibility in both in-state and out-of-state Class I areas. VISTAS performed the modeling in accordance

with the principles described within EPA's "Modeling Guidance for Demonstrating Air Quality Goals for Ozone, PM_{2.5} and Regional Haze" (2018 Modeling Guidance).⁵ In 2018, EPA approved⁶ the Quality Assurance Project Plan prepared by VISTAS for performing the modeling and also reviewed and provided comments on the VISTAS Modeling Protocol. EPA also reviewed the VISTAS final modeling reports and data relied upon by Georgia and found them acceptable.

The Commenters assert that, due to errors, the modeling failed to meet VISTAS' model performance goals and modeling acceptance criteria for a number of Class I areas. Specifically, the Commenters assert that the VISTAS modeling significantly underpredicted the contribution of sulfate to visibility impairment on the 20 percent most impaired days and that the largest underprediction was during the summer months when visibility is most problematic at Class I areas. Figure 6–7 in Georgia's Haze Plan shows the results of the normalized mean bias and normalized mean error statistical model performance tests for sulfates.

Model bias and error, either high or low, is not uncommon in photochemical modeling analyses due to uncertainties in model inputs and the scientific model formulation, and the fact that all air quality models are simplified approximations of the complex phenomena of atmospheric chemistry, fate, and transport of pollutants. Section 6.0 of EPA's 2018 Modeling Guidance discusses uncertainties that may affect model results and provides recommendations to mitigate modeling bias and uncertainty. Georgia acknowledges that model performance is biased low on the 20 percent most impaired days and provided an explanation of why this modeling was appropriate for its regulatory determinations in the Haze Plan. Georgia references the 2018 Modeling Guidance, which states that it is not appropriate to use a "bright-line test" for distinguishing between adequate and inadequate photochemical model performance for a single performance test statistic. EPA's 2018 Modeling Guidance instead recommends using a "weight of evidence" approach for

evaluating model performance holistically.

As discussed in Section 5.2(d) of EPA's "Guideline on Air Quality Models" contained in 40 CFR part 51, Appendix W, there are no specific levels of any model performance metric that indicate acceptable model performance. The decision regarding acceptability is heavily influenced by professional judgment of the reviewing authority, which is EPA in this case. Based upon the overall performance of the model for all pollutants affecting visibility, considered holistically, EPA agrees with Georgia's conclusions that the modeling is acceptable for use in the regional haze SIP analyses, and the model bias was adequately explained by Georgia and therefore the source selection outcomes using the VISTAS' methodology were reasonable.

Just as importantly, Georgia took appropriate steps to correct for this model bias. The Haze Plan explains that the model is applied in a relative sense through the calculation of RRFs following the procedures in 2018 Modeling Guidance for calculating 2028 future year visibility impacts, which helps alleviate concerns about the low bias in the sulfate model predictions. As described in EPA's 2018 Modeling Guidance, RRFs are "the fractional change in air quality concentrations that is simulated due to emissions changes between a base and a future year emissions scenario."⁷

EPA agrees with Georgia that applying the model in a relative sense using the RRFs is an important tool in alleviating the impacts of the sulfate modeling underpredictions in the 2011 baseline year on the model projections for the 2028 future year. Section 4.1 of the 2018 Modeling Guidance provides a detailed explanation of why EPA recommends photochemical modeling be applied in a relative sense and explains that problems posed by model bias are expected to be reduced when using the relative approach. Section 7.2.5.1 of Georgia's Haze Plan explains the calculation of 2028 visibility estimates using the RRF approaches contained in EPA's 2018 Modeling Guidance. Using the RRF approach with an average of five years of Interagency Monitoring of Protected Visual Environments (IMPROVE)⁸ data on the 20 percent most impaired days and 20 percent clearest days along with the relative percent modeled change in all of the particulate matter (PM) species between 2011 and 2028 reduces the influence of

³ Areas statutorily designated as mandatory Class I Federal areas consist of national parks exceeding 6,000 acres, wilderness areas and national memorial parks exceeding 5,000 acres, and all international parks that were in existence on August 7, 1977. CAA 162(a). There are 156 mandatory Class I areas. The list of areas to which the requirements of the visibility protection program apply is in 40 CFR part 81, subpart D.

⁴ Exhibit 10 of the Conservation Groups' comments contains the May 12, 2021, letter regarding the VISTAS regional haze modeling for the second planning period.

⁵ "Modeling Guidance for Demonstrating Air Quality Goals for Ozone, PM_{2.5} and Regional Haze," EPA 454/R-18-009, November 29, 2018, (hereafter "2018 Modeling Guidance") is available at: https://www.epa.gov/sites/default/files/2020-10/documents/o3-pm-rh-modeling_guidance-2018.pdf.

⁶ The April 3, 2018, Quality Assurance Project Plan for the VISTAS II Regional Haze Project is located in Appendix A-1 of the Haze Plan.

⁷ See 2018 Modeling Guidance at p. 103.

⁸ IMPROVE visibility monitoring data is available at: <https://vista.cira.colostate.edu/Improve/>.

the bias in sulfate-modeled (and other PM species) values in the 2011 baseline year. The 2028 visibility impairment projection is derived primarily from the five-year average of actual IMPROVE monitoring data in 2009–2013 that was then scaled in a relative sense by the modeling results. If the model was being applied in an absolute sense, the low bias in the sulfate modeled values would have a larger impact on the 2028 visibility projections. For these reasons, Georgia's use of RRFs adequately minimized the impacts of model bias, and therefore, Georgia's source selection using the VISTAS' methodology was reasonable.

Comment 1.b: The Commenters also discuss several other alleged deficiencies with VISTAS' modeling. They state that VISTAS relied on an "outdated" 2011 baseline year for its 2028 future year emissions projections and assumed that electric generating units (EGUs) would operate in the exact same manner in 2028 as they did in 2011. Thus, the Commenters assert that this model assumption is incorrect because EGUs are likely to have different load utilization in 2028 than in 2011.

Response 1.b: Regarding the Commenters' comments about Georgia's use of a 2011 base emissions inventory year to project emissions out to 2028 (the end of the second planning period), EPA finds the 2011 baseline year acceptable in this instance. Although it is always preferable to use the most recent information available for modeling, the 2011 baseline year inventory used by VISTAS was the latest region-wide inventory available at the time that Georgia's SIP submittal was being developed during the VISTAS technical work, which took place from December 2017 to February 26, 2021.⁹ In EPA's experience, coordination among states such as those in the VISTAS region takes time, and the modeling involved is time-consuming, highly technical, and resource intensive. The modeling generally requires hundreds of hours of time to gather the model input data (e.g., emissions, meteorology, land-use, etc.), prepare modeling protocols, perform the modeling, and analyze the results. The computational resources to run photochemical models are also very large. "Mainframe" clusters of a large number of computer processors are required to run the models, and even using these powerful computers, it takes weeks of computer run-time for a full-

year model simulation. Additionally, EPA's newer 2016-based modeling platform only became available in September 2019, after VISTAS had already invested a considerable amount of time and money into the regional haze modeling analysis.¹⁰

EPA develops the National Emission Inventory (NEI) suitable for use in such models every three years.¹¹ By design, the regional haze program requires states to spend significant time in the planning phase, and this generally necessitates the use of a baseline year that is substantially earlier than the date the state submits its SIP to EPA. Here, it is reasonable that Georgia utilized the 2011 emissions inventory year on which to base the technical work for the following reasons. There is no RHR requirement regarding the baseline year for regional photochemical modeling (nor is photochemical modeling required). GA EPD justifies the use of this particular baseline year and states that the 2011 emissions inventory was the most recently available quality assured statewide emissions inventory when the VISTAS project began for the second planning period. Moreover, prior to using this data, GA EPD discussed the selection of this baseline year emissions inventory and received confirmation from EPA to use this emissions inventory.¹² Given the aforementioned reasons, EPA finds the use of the 2011 baseline year by VISTAS, and thus Georgia, reasonable.

The 2011 emissions inventory was used to estimate emissions of visibility impairing pollutants in 2028 to develop the 2028 projections. VISTAS applied reductions expected from federal and state regulations to the visibility impairing pollutants NO_x, PM, and SO₂. Georgia's 2028 emissions projections are based on the State's technical analysis of the anticipated emissions rates and level of activity for EGUs, other point sources, non-point sources, on-road sources, and off-road sources based on their emissions in the 2011 base year, considering growth and additional emissions controls to be in place by 2028. In addition, the VISTAS emissions inventory for 2028 accounts for post-2011 emission reductions from

promulgated federal, state, local, and site-specific control programs.

Although Georgia used the 2011 year as its emissions inventory base year, as required by the RHR at 40 CFR 51.308(f)(2)(iii), Georgia also examined more recent emissions inventory information for SO₂ and NO_x for the years 2017, 2018, and 2019 and compared these emissions to the 2028 emission projections that were used for modeling purposes in Section 7.6.5 and Tables 7–32 and 7–33 of its Haze Plan. This helps to ensure that the State adequately considered more recent emissions inventory information when developing its LTS. The technical information provided in the docket demonstrates that the emissions inventory in the Haze Plan adequately reflects projected 2028 conditions. Given the aforementioned reasons, EPA finds the use of the 2011 baseline year by VISTAS (and thus Georgia) reasonable.

Comment 1.c: The Commenters state that VISTAS used "outdated" monitoring data for its 2028 future year projections that did not reflect an observed shift in nitrate contribution to visibility impairment in the southeastern United States in the recent past. Consequently, the Commenters assert that Georgia improperly excluded major sources of haze-forming pollution from FFAs.¹³

Response 1.c: Regarding the Commenters' claims that the 2009–2013 modeling base period did not reflect more recent changes in nitrate contributions, EPA discussed its views on this issue in detail in the NPRM. Nitrates are also discussed in Response 3, below. EPA agrees that after the 2009–2013 timeframe, nitrate impacts have become more significant on some of the 20 percent most impaired days, especially taking into account the significant decrease in SO₂ emissions and measured sulfate concentrations as acknowledged in the NPRM. EPA nonetheless agrees with Georgia's conclusion that for the second planning period, sulfates remain the dominant visibility impairing pollutant at the Class I areas affected by Georgia, and therefore, it is reasonable for Georgia to focus on SO₂ emitting sources during this period.¹⁴

¹⁰ See "Technical Support Document for EPA's Updated 2028 Regional Haze Modeling" at: <https://www.epa.gov/visibility/technical-support-document-epas-updated-2028-regional-haze-modeling>.

¹¹ For more information on the NEI, see: <https://www.epa.gov/air-emissions-inventories/national-emissions-inventory-nei>.

¹² See the January 29, 2018, email from EPA (Richard Wayland) regarding use of a 2011 base year by VISTAS for regional haze in the docket for this rulemaking.

¹³ The amount of progress that is "reasonable progress" is based on applying the four statutory factors in CAA section 169A(g)(1) in an evaluation of potential control options for sources of visibility impairing pollutants, which is referred to as a "four-factor analysis."

¹⁴ Out-of-state Class I areas affected by Georgia sources are: Florida, South Carolina, North Carolina, and Tennessee. Figures 2–8 and 2–9 of the Haze Plan provide the 2014–2018 IMPROVE data for the VISTAS Class I areas.

⁹ See "Timeline" for the VISTAS II Regional Haze Project at: <https://www.metro4-sesarm.org/content/vistas-regional-haze-project-intro>.

Comment 2: The Commenters assert that Georgia's source selection process was unreasonable and too restrictive, based, in part, on their concerns summarized in Comment 1. Additionally, the Commenters state that Georgia's use of VISTAS' multi-step source screening process using Area of Influence (AoI) and Particulate Matter Source Apportionment Technology (PSAT) analysis was unreasonable. They therefore contend that EPA's proposal to approve the State's source selection method is arbitrary and capricious. The Commenters' specific comments on this topic are addressed in Comments 2.a through 2.f, below.

Comment 2.a: The Commenters also claim that the State employed unreasonably high source selection thresholds for AoI, which were too restrictive and resulted in the identification of only five sources at that step. The Commenters assert that by using a percentage source selection threshold (for AoI and PSAT), the calculated threshold in absolute visibility impact terms was higher for Class I areas with the most severe visibility impairment. This in turn, they contend, meant that fewer sources were identified at the AoI step for Class I areas with the worst visibility impairment. The Commenters state that for the areas with the worst visibility impairment, more sources should be selected to make progress toward the natural visibility goal. In addition, the Commenters assert that neither Georgia nor EPA provide any justification for doubling the AoI threshold for out-of-state sources compared to in-state sources.

Response 2.a: Concerning the Commenters' argument that the State's source selection threshold is unreasonable, as explained in the NPRM, the RHR does not require states to consider controls for all sources, all source categories, or any or all sources in a particular source category. Nor does the RHR expressly specify criteria for minimum source selection thresholds.

These flexibilities are, however, not unbounded. The RHR requires that "[t]he State should consider evaluating major and minor stationary sources or groups of sources, mobile sources, and area sources. The State must include in its implementation plan a description of the criteria it used to determine which sources or groups of sources it evaluated and how the four factors were taken into consideration in selecting the measures for inclusion in its long-term strategy."¹⁵ In addition, the technical basis for source selection must also be documented, as required by 40 CFR 51.308(f)(2)(iii). Thus, states must utilize a reasonable source selection methodology,¹⁶ and whatever choices states make regarding source selection should be reasonably explained.¹⁷ Georgia met these requirements. Specifically, Georgia discussed the criteria it used to determine which sources or groups of sources were evaluated by the State, including the use of AoI analysis, photochemical modeling (e.g., PSAT), and associated source selection thresholds for AoI and PSAT tagging in its Haze Plan. Georgia documented its use of these approaches in extensive detail within Section 7.5 of the Haze Plan and Appendices D-1 and D-2 of the Haze Plan (relating to AoI

analysis) and Section 7.6 of the Haze Plan and Appendices E-1a, E-1b, E-2a, E-2b, E-2c, E-2d, E-2e, E-2f, E-3, E-4, E-5, E-6, E-7a, E-7b, and E-8 of the Haze Plan (relating to PSAT modeling).

Georgia's documentation adequately demonstrates why its source selection methodology—including the use of an AoI threshold of two percent¹⁸ for in-state sources for follow-up PSAT tagging, and a one percent PSAT threshold on a pollutant-by-pollutant basis for source selection—is reasonable. For the reasons stated in the NPRM (89 FR 47497), EPA finds that Georgia's source selection methodology was reasonable and resulted in the selection of a reasonable set of sources contributing to visibility impairment at Class I areas affected by Georgia's sources. The State's methods for selecting sources for a control analysis and the State's AoI and PSAT analyses identified sources in Georgia having the highest impact on visibility at Class I areas at the end of the second planning period and identified sources outside of Georgia having the largest impacts on visibility at Class I areas in the State. A specific source selection approach is not required by the RHR.¹⁹

The results of this methodology were reasonable as well. On the whole, SO₂ emissions from the three in-state sources selected by Georgia for FFAs—Georgia Power Company's Plant Bowen ("Plant Bowen"), International Paper's Savannah Mill ("IP-Savannah"), and Brunswick Cellulose—are projected to impact visibility at Class I areas as described in Table 1 below.²⁰

TABLE 1—SULFATE PSAT CONTRIBUTIONS (%) FOR PLANT BOWEN, IP-SAVANNAH, AND BRUNSWICK CELLULOSE AT CLASS I AREAS ON 20% MOST IMPAIRED DAYS *

Class I area **	Plant Bowen	IP-Savannah	Brunswick Cellulose
Cohutta National National Wilderness Area (Cohutta) (GA)	2.13	.....	.....
Okefenokee National Wilderness Area (Okefenokee) (GA)	2.30	1.04	.....
Wolf Island National Wilderness Area (Wolf Island) (GA) ***	2.33	1.54	1.76
Chassahowitzka National Wilderness Area (FL)	2.28	.....	.....
St Marks National Wilderness Area (FL)	4.89	.....	.....
Linville Gorge National Wilderness Area (NC)	1.13	.....	.....
Shining Rock National Wilderness Area (NC)	1.29	.....	.....
Swanquarter National Wilderness Area (NC)	1.03	.....	.....

¹⁵ See 40 CFR 51.308(f)(2)(i).

¹⁶ As explained in the July 8, 2021, EPA memorandum containing "Clarifications Regarding Regional Haze State Implementation Plans for the Second Implementation Period" ("2021 Clarifications Memo"), a reasonable source selection process "should be designed and conducted to ensure that source selection results in a set of pollutants and sources the evaluation of which has the potential to meaningfully reduce their contributions to visibility impairment." See 2021 Clarifications Memo at 3 available at: [https://www.epa.gov/system/files/documents/2021-07/](https://www.epa.gov/system/files/documents/2021-07/clarifications-regarding-regional-haze-state-implementation-plans-for-the-second-implementation-period.pdf)

[clarifications-regarding-regional-haze-state-implementation-plans-for-the-second-implementation-period.pdf](https://www.epa.gov/system/files/documents/2021-07/clarifications-regarding-regional-haze-state-implementation-plans-for-the-second-implementation-period.pdf).

¹⁷ See 89 FR 47481, 47493 (June 3, 2024); see also Sections 2 and 2.1 of 2021 Clarifications Memo.

¹⁸ The State's use of a four percent AoI threshold for out-of-state sources is discussed below in Response 2.a.

¹⁹ Both of these approaches (AoI and PSAT) are example methods in EPA's August 20, 2019, guidance titled: "Guidance on Regional Haze State Implementation Plans for the Second Implementation Period" ("2019 Guidance") which

is available at: https://www.epa.gov/sites/default/files/2019-08/documents/8-20-2019_-_regional_haze_guidance_final_guidance.pdf. See subsection

"b) Estimating baseline visibility impacts for source selection" on pages 12–15 of the 2019 Guidance. PSAT is a type of photochemical modeling which is item 4 on page 13 of the 2019 Guidance. VISTAS' AoI analyses involve items 1–3 on page 13 of the 2019 Guidance.

²⁰ No sources met Georgia's Nitrate PSAT threshold of greater than or equal to one percent on the 20 percent most impaired days.

TABLE 1—SULFATE PSAT CONTRIBUTIONS (%) FOR PLANT BOWEN, IP-SAVANNAH, AND BRUNSWICK CELLULOSE AT CLASS I AREAS ON 20% MOST IMPAIRED DAYS *—Continued

Class I area **	Plant Bowen	IP-Savannah	Brunswick Cellulose
Cape Romain National Wilderness Area (SC)	3.53	1.28	.....
Joyce Kilmer-Slickrock National Wilderness Area (TN and NC)	1.11	.....	.....

* Note that fields in the above table left blank indicate that visibility impacts are below one percent.
 ** The Class I areas listed in Table 1, above, are included because the Georgia facilities in this table have a sulfate PSAT contribution of one percent or more at one or more of these areas.
 *** Wolf Island has no IMPROVE monitor. Visibility at Wolf Island is assumed to be the same as the nearest Class I area monitor located at Okefenokee.

Although these three sources are the largest contributors within Georgia to visibility impairment at Class I areas, Table 1 shows Sulfate PSAT visibility impacts from these sources range from approximately one to five percent at the selected Class I areas. This is due to the fact that most anthropogenic impacts to visibility at these Class I areas come from outside of Georgia. In fact, they primarily come from outside of the VISTAS states. This is illustrated in Table 7–4 of the Haze Plan, which provides the contributions from 2028 SO₂ and NO_x emissions to visibility impairment from all source sectors for the 20 percent most impaired days in units of inverse megameters (Mm⁻¹). The entries in Table 2, below, show the contributions made from Georgia, all other VISTAS states, and other Regional Planning Organizations to Georgia’s Class I areas.

TABLE 2—CONTRIBUTIONS OF 2028 SO₂ AND NO_x EMISSIONS FROM ALL SOURCE SECTORS TO VISIBILITY IMPAIRMENT FOR THE 20 PERCENT MOST IMPAIRED DAYS FOR CLASS I AREAS IN GEORGIA [Mm⁻¹]*

Class I area **	Projected 2028 impairment on 20% most impaired days	GA	All other VISTAS states	CENRAP region ***	LADCO region ***	MANE–VU region ***	WRAP region within VISTAS modeling domain ***
COHU	45.28	1.04	5.19	1.76	6.88	0.87	2.30
OKEF	54.66	2.17	7.57	2.27	3.60	1.01	2.84
WOLF	53.59	2.57	6.56	2.15	3.44	1.15	3.41

* As noted in Georgia’s Haze Plan, the columns to the right of “Projected 2028 Impairment on 20% Most Impaired Days” do not add up to the values in the “Projected 2028 Impairment on 20% Most Impaired Days” column due to international emissions and boundary emissions.
 ** “COHU” refers to Cohutta; “OKEF” refers to Okefenokee; and “WOLF” refers to Wolf Island.
 *** “CENRAP” refers to Central Regional Air Planning Association (which is associated with the Central States Air Resource Agencies (CENSARA)); “LADCO” refers to Lake Michigan Air Directors Consortium; “MANE–VU” refers to Mid-Atlantic/Northeast Visibility Union; “WRAP” refers to Western Regional Air Partnership. See also: <https://www.epa.gov/visibility/visibility-regional-planning-organizations>.

Table 2, above, illustrates that Georgia’s in-state emissions account for a relatively small fraction of total visibility impairment at Georgia’s Class I areas. This fraction is approximately 2.29 percent for Cohutta, 3.97 percent for Okefenokee, and 4.79 percent for Wolf Island.²¹ Likewise, the PSAT Tag Results spreadsheet in Appendix E–7A of the Haze Plan shows the visibility impacts on a facility-by-facility basis due to SO₂ emissions. Specifically, Appendix E–7A shows the following SO₂ visibility impacts to Georgia’s Class I areas on the 20 percent most impaired days in units of Mm⁻¹.

TABLE 3—SO₂ VISIBILITY IMPACTS TO GEORGIA CLASS I AREAS ON THE 20 PERCENT MOST IMPAIRED DAYS [Mm⁻¹]

Class I area	Plant Bowen contribution	IP-Savannah contribution	Brunswick Cellulose to 20% contribution	Total of Georgia selected sources	Georgia total contribution	All sources (including out-of-state) contribution
COHU	0.282	0.038	0.002	0.322	0.803	15.6
OKEF	0.308	0.140	0.077	0.525	1.669	16.4
WOLF	0.302	0.200	0.228	0.458	2.124	16.2

The above data in Table 3 further supports that Georgia’s source selection thresholds and source selection methodology were reasonable. Specifically, on the 20 percent most impaired days, Georgia’s selected in-state sources are responsible for approximately 40 percent of Georgia’s total in-state SO₂ visibility impairment at Cohutta, 31.5 percent of total in-state SO₂ visibility impairment at Okefenokee, and 21.6 percent of total in-

²¹ These percentages were calculated by dividing the “GA” column by the “Projected 2028 20% Most Impaired Days Column” and multiplying by 100.

state SO₂ visibility impairment at Wolf Island.²² States are not required by the RHR to select every source in the state, and the state selected the in-state sources with the largest visibility impacts on in-state and nearby Class I areas. The selection of the above sources captured sufficient visibility-impairing emissions to allow Georgia to ensure that FFAs conducted for this planning period had the potential to meaningfully reduce emissions (and thus, associated visibility impacts at Class I areas) from in-state sources.

Table 3 also shows that most emissions of visibility-impairing sulfates that impact Georgia's Class I areas on the 20 percent most impaired days are emitted from outside of Georgia. The same general pattern holds for the 20 percent least impaired days as well. Georgia does not have jurisdiction through its SIP to regulate sources outside of state boundaries. Georgia did, however, request FFAs from other states for an additional 14 facilities outside of Georgia through the interstate consultation process.²³ The "regional" nature of the regional haze program necessarily requires Georgia to rely on reasonable progress made by other states, just as other states must rely on Georgia to make reasonable progress.

The Commenters also argue that neither Georgia nor EPA provided justification for doubling the AoI threshold for out-of-state sources. In its Haze Plan, Georgia explained that use of an AoI contribution of four percent or more to tag sources for PSAT captures large sources outside of Georgia. When selecting out-of-state sources, 40 CFR 51.308(f)(2)(ii) applies. 40 CFR 51.308(f)(2)(ii) requires states to "consult with those States that have emissions that are reasonably anticipated to contribute to visibility impairment in the mandatory Class I Federal area." The use of the four percent AoI threshold allowed Georgia to identify "emissions that are reasonably anticipated to contribute to visibility impairment"²⁴ at Class I areas within Georgia that are emitted from out-of-state, and indeed, using this methodology combined with follow-up PSAT tagging and modeling, Georgia sought interstate consultation for 14 such sources.

Turning to the Commenters' other source selection comments, they assert that by using a percentage threshold for AoI and PSAT, the calculated threshold

in absolute visibility impact terms was higher for Class I areas with the most severe visibility impairment, which resulted in fewer sources being evaluated for reasonable progress for the most visibility-impaired Class I areas. Thus, the Commenters assert that the use of a percentage threshold was unreasonable.

EPA disagrees. Regardless of whether a relative or absolute threshold is used, the number of sources selected depends on the chosen value of the threshold. A percentage threshold, rather than one using inverse megameters or deciviews, may capture more sources at areas with less visibility impairment or areas where no or few sources exceed an absolute visibility impairment threshold. When using an absolute value threshold instead of a percentage threshold, Class I areas with less visibility impairment might not have any sources selected at all that impact those areas. Thus, in general, the use of a percentage threshold is consistent with the requirement to make reasonable progress toward remedying visibility impairment in each Class I area. As noted above, states have flexibility to adopt any source selection methodology so long as the methodology is reasonable, and the states' choices are reasonably explained. EPA finds that Georgia's source selection method is reasonable and adequately explained for the reasons discussed above.

Comment 2.b: The Commenters also state in their comments that VISTAS considered sulfate and nitrate separately in model analyses, which the Commenters allege does not align with how these pollutants actually function in the atmosphere. They state that sulfate and nitrate act in combination in the atmosphere, along with other haze precursors, to contribute to visibility impairment. As a result, they argue that VISTAS likely underestimated the overall visibility impact of individual sources in its PSAT analysis.

Response 2.b: Regarding the Commenters' assertion that VISTAS considered sulfate and nitrate separately in model analyses, which led to underestimating the visibility impacts in the PSAT analyses, EPA disagrees. In the AoI screening analysis, VISTAS used the *combined* sulfate plus nitrate values to select sources to tag for the refined PSAT source apportionment modeling analyses. Section 7.5.5 of the Haze Plan explains how Georgia used the results of the AoI analysis to select sources for further evaluation with PSAT. This section shows that facilities contributing more than two percent (in-state) or four percent (out-of-state) of

sulfate plus nitrate were selected for PSAT tagging. See Tables 7–8 through 7–10 for the specific sources with sulfate plus nitrate values greater than Georgia's AoI source selection thresholds.

Also, contrary to the Commenters' assertion, sulfates and nitrates were modeled together in the PSAT modeling with the other PM species that impact visibility (e.g., direct PM, organic carbon, elemental carbon, etc.). Section 7.6.2 of Georgia's Haze Plan summarizes the results of the PSAT modeling. This section states that: "The adjusted PSAT results were used to calculate the percent contribution of each tagged facility to the total sulfate and nitrate point source (EGU + non-EGU) contribution at each Class I area." Tables 7–16 through 7–18 contain the specific PSAT results for each of Georgia's Class I areas. It is true that Georgia considered the PSAT modeled results for sulfate and nitrate separately to compare against its selected one percent threshold to identify a reasonable number of sources for reasonable progress analyses. EPA agrees with the State that this approach is reasonable for the reasons discussed above and was adequately justified in the Haze Plan.

Comment 2.c: The Commenters state that VISTAS used an outdated 2028 emissions projection to "tag" sources. They note that although VISTAS documented that the initial 2028 emission inventory projections were updated for the final modeling, the associated PSAT modeling did not use the final 2028 inventory. The Commenters state that VISTAS scaled predicted sulfate and nitrate to the corresponding changes in SO₂ and NO_x emissions using a linear relationship between SO₂ and NO_x emissions and sulfate and nitrate concentrations. They argue that there is a non-linear relationship between emissions and sulfate/nitrate concentrations. These factors all are argued by the Commenters to have introduced errors into the VISTAS modeling. Moreover, the Commenters argue the PSAT tagging process was entirely unnecessary, as the AoI step would have already identified the sources that contributed to impairment at Class I areas.

Response 2.c: VISTAS used the original 2028 emissions inventory to perform the PSAT modeling and the original PSAT results were linearly scaled to reflect the updated 2028 emissions. Although linear scaling introduces some uncertainty to the final PSAT results, EPA agrees with VISTAS and Georgia that adjusting the results to account for VISTAS' updated 2028

²² These percentages were calculated by dividing the "Total of Selected Georgia Sources" column by the "Georgia Total Contribution" column and multiplying by 100.

²³ See Haze Plan Section 7.6.

²⁴ 40 CFR 51.308(f)(2)(ii).

emissions inventory using linear scaling is a reasonable approach to account for VISTAS' updated 2028 emissions projections and is a better approach than relying on the original PSAT modeling. Linear scaling of photochemical modeling results to account for changes in emissions is, in most cases, reasonable and is an accepted practice by EPA. As an example, EPA guidance recommends using EPA's Modeled Emission Rates for Precursors (MERPs) for evaluating secondary particulate matter of 2.5 micrometers or less in diameter (PM_{2.5}) impacts in Prevention of Significant Deterioration (PSD) modeling analyses and allows for and recommends scaling of photochemical modeling results based on emissions.²⁵ This guidance recommends an approach where the PM_{2.5} impacts are estimated using an archived national-scale photochemical modeling analysis, performed using Comprehensive Air Quality Model with Extensions (CAMx) and Community Multiscale Air Quality (CMAQ)²⁶ photochemical models, that uses hypothetical emissions sources, and then linearly scaling the photochemical modeling results using the ratio of the PSD project-specific source emissions to the modeled emissions from the hypothetical source (see Equation 1 on page 3 of the referenced April 30, 2024, MERPs memorandum). This approach is widely used and accepted by state air quality agencies and EPA to account for secondarily formed PM_{2.5} from precursor emissions (SO₂ and NO_x) for PSD modeling analyses. Since the VISTAS analyses used for regional haze modeling use linear scaling with CAMx and for the same PM_{2.5} precursors (SO₂ and NO_x) as the MERPs analyses, EPA finds the method of linear scaling of PM precursor emissions conducted by VISTAS to be acceptable practice.

Regarding the Commenters' assertion that the PSAT tagging process was unnecessary because the AoI step already identified the sources that contributed to impairment at Class I areas, EPA disagrees with the premise of this comment. The standard is not whether the state's source selection approach is necessary or required, but rather, whether the approach is reasonable and is reasonably

explained.²⁷ The two-step process of screening with the AoI analysis and then applying the more refined PSAT source apportionment modeling to sources that met the initial AoI screening criteria is a sound technical approach for identifying sources to evaluate for reasonable progress. Elements of Georgia's AoI approach are discussed in EPA's 2019 Guidance as a viable method to assess sources' visibility impacts to Class I areas.²⁸ Georgia, along with many of the VISTAS states, also relied upon the AoI initial screening approach in its first planning period Haze Plan.²⁹ VISTAS used the AoI analysis as an initial screening step because it is a much simpler and less resource intensive approach than using PSAT tagging to model hundreds to thousands of potential sources. The AoI screening approach identified a smaller subset of sources that could undergo refined analysis using PSAT modeling. EPA finds the two-step process of first screening with the AoI analysis followed by use of the more refined PSAT source apportionment modeling to sources is valid and reasonable. Also, as discussed above, states have discretion under the RHR regarding choice of source selection methodology. Georgia's approach is acceptable for these reasons.

Comment 2.d: The Conservation Groups note that Georgia relied on the PSAT modeling results for its multiple in-state sources that are located less than 50 kilometers (km) from a Class I area and claim that PSAT modeling has been shown to be unreliable for sources that are within a short distance from a Class I area, referencing Federal Land Manager (FLM)³⁰ guidance that addresses regional grid models. The Commenters assert that this caused Georgia to improperly screen out sources. Specifically, the Commenters

²⁷ See 40 CFR 51.308(f)(2)(i), (iii); 89 FR 47481, 47493 (June 3, 2024); see also Sections 2 and 2.1 of 2021 Clarifications Memo.

²⁸ EPA's 2019 Guidance, pages 12–14, describe components of Georgia's AoI approach, including Q/d, trajectory analyses, residence time analyses, and source apportionment photochemical modeling (e.g., CAMx PSAT).

²⁹ See e.g., 77 FR 1163 published February 27, 2012, for a description of Georgia's AoI approach in the first planning period. On May 4, 2018, EPA fully approved Georgia's first period regional haze plan, effective June 4, 2018. See 83 FR 19637.

³⁰ EPA's regulations define "Federal Land Manager" as "the Secretary of the department with authority over the Federal Class I area (or the Secretary's designee) or, with respect to Roosevelt-Campobello International Park, the Chairman of the Roosevelt-Campobello International Park Commission." See 40 CFR 51.301. The U.S. National Park Service (NPS), U.S. Fish and Wildlife Service (FWS), and U.S. Forest Service (USFS) are collectively referred to as the "Federal Land Managers" or "FLMs" throughout this document.

argue that the FLMs' Air Quality Related Values Work Group (FLAG) Guidance indicates that photochemical grid models are not the preferred model for evaluating visibility impacts from sources less than 50 km from Class I areas and reference the use of direct plume impact models.³¹ According to the Conservation Groups, this guidance shows that regional grid models are not preferred for sources located close to Class I areas and that the grid size used by VISTAS is too small to produce accurate results for those sources.

Response 2.d: The Commenters do not provide any specific model performance information demonstrating that the CAMx model nor the PSAT source apportionment tool have poor model performance for evaluating visibility impacts from sources located within 50 km of any of the Class I areas located in Georgia.

The Commenters take the FLMs' FLAG guidance out of context. The FLAG reference to direct plume models (e.g., Plume Visibility Model)³² is for evaluating visibility impacts under the New Source Review (NSR)/PSD permitting regulations and not for regional haze analyses. EPA's regional haze regulations do not require evaluations of direct plume impacts separate from the photochemical modeling analyses used for regional haze visibility analyses.

The Commenters assert that since the horizontal grid size used in the VISTAS CAMx modeling was 12 km, it is insufficient to resolve the details of emissions plumes from facilities within 50 km of a Class I area and that the model performance degrades substantially at close-in distances. The general statement from the Commenters that model performance substantially degrades within 50 km is not supported by any specific evidence in the comments. Moreover, the Commenters' position is belied by the fact that one of the three sources selected by Georgia—Brunswick Cellulose—is 27.9 km from the nearest Class I area (Wolf Island). EPA thus reaffirms that Georgia's CAMx PSAT modeling was appropriate for selecting sources for reasonable progress analyses.

³¹ Conservation Groups cite to the FLAG Guidance at 2024 Kordzi Report at pp. 7–10.

³² The Plume Visibility Model "PLUVUE" is used for estimating visual range reduction and atmospheric discoloration caused by plumes resulting from the emissions of particles, nitrogen oxides, and sulfur oxides from a single source. See "PLUVUE II" at: <https://www.epa.gov/scrpm/air-quality-dispersion-modeling-alternative-models>. The User's Guide is available at: <https://goftp.epa.gov/Air/aqmg/SCRAM/models/other/pluvueii/PluvueUG.pdf>.

²⁵ "Clarification on the Development of Modeled Emission Rates for Precursors (MERPs) as a Tier 1 Demonstration Tool for Ozone and PM_{2.5} under the PSD Permitting Program," April 30, 2024, Memorandum from Tyler Fox to Regional Office Modeling Contacts is available at: https://www.epa.gov/sites/default/files/2020-09/documents/epa-454_r-19-003.pdf.

²⁶ See <https://www.epa.gov/cmaq> for further information on CMAQ.

The Commenters separately argue that Georgia's correlation analysis of the sulfate AoI versus PSAT presented in Section 7.6.3 of the Haze Plan is flawed. The Commenters in the Kordzi Report point out the scatter in the AoI/PSAT ratio data for distances less than 100 km in Figure 7–42 of the Georgia Haze Plan and argue this makes the State's correlation conclusions invalid. Also, the Commenters refer to the scatter in the sulfate fractional bias values in Figure 7–43 in the Haze Plan and argue the AoI versus PSAT correlation is invalid.

EPA disagrees. Georgia's Figure 7–43 has a coefficient of determination (R^2) that appears to have a strong correlation, and the Commenters provided no new information that Georgia's correlation results were flawed. While there is more scatter between the data points less than 100 km from the Class I area, there is clearly a trend that the AoI values are much larger than the PSAT values within 100 km compared to the ratios for further distances. There is logic to this result due to the way the AoI metric is calculated using the Extinction Weighted Residence Times (EWRT) multiplied by the Emissions divided Distance (EWRTxQ/d). The EWRT is calculated using the frequency that winds (represented by Hybrid Single-Particle Lagrangian Integrated Trajectory (HYSPLIT) back trajectories) pass over a specific geographic area (represented by a modeling grid cell) on the path to the Class I area.³³ For sources located less than 100 km from a Class I area, there is likely to be a higher frequency of the HYSPLIT back trajectories passing over the 12 km grid cell containing the source, thus the EWRT and AoI value will be larger. The CAMx PSAT modeling is a more refined photochemical modeling approach that calculates the atmospheric fate and transport of the PM precursors and their chemical reactions to form visibility impairing pollutants (e.g., ammonium sulfate). Therefore, compared to the AoI screening process, the refined PSAT technique is less likely to overestimate the visibility impacts for sources located within 100 km of the Class I area. Regarding the scatter of the data resulting in the AoI to PSAT fractional bias correlation, EPA acknowledges that there is scatter in the data which is reflected in the 0.72 R^2 value shown in Figure 7–43 in the Haze Plan. However, this level of correlation is not uncommon in these types of modeling data analyses, and the results are

reasonable. For these reasons, Georgia's correlation approach is valid.

The photochemical modeling employed by VISTAS and Georgia is the most refined methodology available for evaluating regional haze visibility impacts. Moreover, Georgia's AoI screening process identified sources located within 50 km of its Class I areas, including the Brunswick Cellulose facility located approximately 30 km from Wolf Island that met the PSAT source selection criteria and underwent an FFA to evaluate reasonable progress. As discussed above, Georgia demonstrated in Section 7.6.3 of the Haze Plan that the AoI screening technique overestimates visibility impacts for sources located within 100 km of a Class I area. Based upon this AoI overestimation, in Section 7.6.4 of the Haze Plan, Georgia explains why sources (with the exception of Brunswick Cellulose which is located 27.9 km from Wolf Island) that are located less than 100 km from its Class I areas were not tagged for PSAT modeling and thus were not selected for FFAs. EPA finds that Georgia adequately justified why the other sources within 100 km of Class I areas were not selected for FFAs.

Comment 2.e: The Commenters also note that EPA stated in guidance³⁴ that use of a source selection threshold that captures only a small portion of a state's contribution to visibility impairment in Class I areas is more likely to be unreasonable. The Commenters assert that to ensure Georgia captured a meaningful portion of in-state sources, a different selection method with a lower threshold should have been used, such as a "Q/d" (emissions (Q) divided by distance to a Class I area (d)). The Commenters assert that utilizing this method with a threshold of five or lower might have resulted in up to 21 sources in Georgia being selected for an FFA.

Response 2.e: Regarding the Commenters' argument that the State should have adopted a different selection method (such as Q/d) with a lower threshold to select more sources, as discussed above, a state is not required to evaluate all sources of emissions in each planning period. Instead, a state may reasonably select a set of sources for an analysis of control measures. Selecting a set of sources for analysis of control measures in each

planning period is also consistent with the RHR, which sets up an iterative planning process and anticipates that a state may not need to analyze control measures for all its sources in a given SIP revision. See 2019 Guidance at 9. Moreover, use of Q/d (which simply involves dividing the quantity of emissions by the distance to a Class I area) does not consider transport direction/pathway, dispersion and photochemical processes, or the particular days that have the most anthropogenic impairment due to all sources. 2019 Guidance at 13. Therefore, compared to photochemical modeling, using a simple Q/d technique as Commenters suggest would have resulted in a less accurate quantification of visibility impacts on Class I areas. As for the use of specific source selection thresholds (including Commenters' suggested Q/d threshold of above five), as discussed in detail above, Georgia's source selection methodology and thresholds were well documented and reasonable.

Comment 2.f: The Commenters also assert that EPA's position that Georgia's source selection method is reasonable given the specific circumstances present in Georgia, including that Georgia is not contributing to visibility impairment at any Class I areas above the Uniform Rate of Progress (URP), is not a valid basis on which EPA can approve the State's selection method.³⁵ Specifically, the Commenters note that the glidepath (i.e., URP) is not a "Safe Harbor" to avoid requiring additional reasonable progress measures for Class I areas. Separately, the Commenters take issue with EPA's statement in the NPRM that Georgia's source selection methodology is also reasonable given the "specific circumstances present in Georgia" which precedes a factual recitation of the improvements in visibility since the 2000–2004 baseline and Georgia's lack of contribution to any Class I area above the URP.

Response 2.f: EPA agrees that the URP is not a "safe harbor" to avoid requiring additional reasonable progress measures. However, being below the URP is relevant to whether a state needs to perform a "robust demonstration" based on the requirements in 40 CFR 51.308(f)(3)(ii)(A) and 40 CFR 51.308(f)(3)(ii)(B). Therefore, the factual

³³ This is explained in much greater detail in Section 7.5 of the Haze Plan.

³⁴ "Clarifications Regarding Regional Haze State Implementation Plans for the Second Implementation Period." <https://www.epa.gov/system/files/documents/2021-07/clarifications-regarding-regional-haze-state-implementation-plans-for-the-second-implementation-period.pdf>. EPA Office of Air Quality Planning and Standards, Research Triangle Park (July 8, 2021).

³⁵ The URP (also commonly referred to as the "glidepath") is the linear rate of progress needed to attain natural visibility conditions, assuming a starting point of baseline visibility conditions in 2004 and ending with natural conditions in 2064. The URP is used as a tracking metric to help States assess the amount of progress they are making toward the national visibility goal over time in each Class I area. See 40 CFR 51.308(f)(1)(vi).

information that all Georgia and nearby Class I areas are below the URP is needed to inform that requirement. Additionally, other information about measured progress towards natural conditions can be relevant in evaluating the source selection process and LTS. For example, significant improvements in visibility at impacted Class I areas since the beginning of the second planning period (starting in 2019) is relevant context to whether a state is making progress towards the national goal and how many additional sources needed to be analyzed in order to determine what is necessary for reasonable progress in the second planning period. Therefore, what progress the state has already achieved in the second planning period is a relevant factor that EPA may consider regarding the reasonableness of a state's source selection thresholds. Even ignoring the fact that the visibility at Class I areas impacted by Georgia has greatly improved, EPA would still reach the same conclusion that Georgia's source selection methodology and thresholds for this second planning period are reasonable for the reasons stated earlier in this Response.

Comment 3: The Commenters assert that EPA incorrectly endorses Georgia's decision to exclude consideration of NO_x controls in any FFAs. They contend that VISTAS modeling did not accurately reflect the shift in the 20 percent most impaired days and the corresponding increase in the contribution of nitrate to visibility impairment at Southeastern Class I areas such as Cohutta, especially in winter months and at coastal sites. The Commenters state that EPA's expectation is that states will, at a minimum, consider both SO₂ and NO_x in this planning period, and that there

are multiple sources of significant NO_x emissions that Georgia should have analyzed for NO_x controls.

Response 3: EPA disagrees with this comment. The RHR does not prescribe which visibility impairing pollutants must be evaluated in the FFAs. EPA's 2019 Guidance on page 11 states: "When selecting sources for analysis of control measures, a state may focus on the PM species that dominate visibility impairment at the Class I areas affected by emissions from the state and then select only sources with emissions of those dominant pollutants and their precursors." Section 2.2 of EPA's 2021 Clarifications Memo recommends that states which do not evaluate SO₂ and NO_x in both source selection and control evaluations show why such consideration of these pollutants would be unreasonable, especially if the state considered both of these pollutants in the first planning period.³⁶

Georgia followed these recommended approaches in the development of its Haze Plan. Georgia considered both SO₂ emissions (via sulfate's visibility impacts) and NO_x emissions (via nitrate's visibility impacts) in the source selection process. As part of the Haze Plan, GA EPD presented the results of PSAT modeling conducted by VISTAS to estimate the projected impact of statewide SO₂ and NO_x emissions across all emissions sectors in 2028 on total light extinction for the 20 percent most impaired days in all Class I areas in the VISTAS modeling domain. The modeling showed that SO₂/sulfate visibility impacts from point sources were in general much larger than NO_x/nitrate impacts. Applying the modeling results to individual sources resulted in relatively large sulfate visibility impacts for a small number of in-state SO₂ sources, but much smaller nitrate

impacts from NO_x emissions. Therefore, several sources were selected for SO₂ control analysis determinations, but no sources in Georgia met the same source selection threshold for nitrate, and therefore Georgia did not select any sources for a NO_x emissions control evaluation. Contrary to the Commenters' assertion that Georgia made a "decision" to exclude consideration of NO_x controls in any FFA, it was Georgia's objective application of its source selection process in combination with data and modeling showing that SO₂ and not NO_x is the dominant visibility impairing pollutant that resulted in Georgia selecting only sources for SO₂ emissions control analyses.

This approach was reasonable. IMPROVE monitoring data shows that ammonium sulfate remains the dominant visibility impairing pollutant at Georgia's Class I areas as well as at those Class I areas outside of the State that are impacted by Georgia as discussed in Section 2.5.2 of the Haze Plan (particularly Figures 2–4 through 2–6 for the 2009–2013 period and Figures 2–7 through 2–9 for the 2014–2018 period). Recent 2015–2019 IMPROVE monitoring data cited within the Haze Plan identifies the relative contributions of PM species contributing to the total visibility impairment at the Georgia Class I areas, which are shown in Table 4, below. In spite of increased nitrate contributions on the 20 percent most impaired days in more recent years (as the Commenters note, often on winter days), as indicated in Table 4, ammonium nitrate contributions to regional haze at the State's Class I areas remain relatively low at 8 to 15 percent of the total visibility impairment as compared to ammonium sulfate at 55 to 58 percent.

TABLE 4—§2015–2019 SPECIATED IMPROVE MONITORING DATA FOR GEORGIA'S CLASS I AREAS

	Ammonium sulfate (%)	Ammonium nitrate (%)	Organic carbon (%)	Coarse mass (%)	Elemental carbon (%)	Fine sea salt (%)	Fine soils (%)
Cohutta	55	15	19	5	5	0	1
Okefenokee	58	8	19	6	5	2	1
Wolf Island	58	8	19	6	5	2	1

Furthermore, in Tables 7–5 through 7–7 of the Haze Plan, the State provided a calculation of the sulfate and nitrate EWRT used in the AoI analysis for Cohutta and Okefenokee for the 20 percent most impaired days from 2011 to 2016, demonstrating that the sulfate

EWRT is significantly higher than the nitrate EWRT. This further supports the importance of focusing on SO₂ emissions reductions for this planning period.

The State's rationale for focusing on SO₂ controls in the FFAs is summarized

in Georgia's SIP submittal and the NPRM. See Haze Plan, Section 7.10; 89 FR 47491, 47493–47494. EPA gave careful consideration to Georgia's rationale and reaffirms that Georgia's justification for not evaluating sources selected for SO₂ emission control

³⁶ Georgia considered SO₂ for FFAs conducted in the first planning period.

analyses for a separate NO_x emission control analysis is reasonably justified for this planning period. The trend of increasing nitrate contribution to visibility impairment as a total percent of all visibility impairment at Class I areas over time highlighted by the Commenters is something that will continue to be evaluated in future planning periods. If the data warrants further consideration of NO_x/nitrate in future planning periods, EPA expects that Georgia will address potential NO_x controls in future regional haze SIP revisions.

Comment 4: The Commenters assert that EPA ignores that Georgia unreasonably excluded sources from FFAs. The Commenters state that EPA must require Georgia to prepare FFAs for 16 additional EGU and non-EGU industrial sources identified by U.S. National Park Service (NPS) and the Commenters which have emissions that likely contribute to impairment in Class I areas in Georgia and other states.

The Commenters describe four of these facilities in greater detail. These specific arguments are addressed in Comments 4.a through 4.c, below.

Comment 4.a: Regarding Georgia Power—Plant Scherer (Plant Scherer), the Commenters state that this facility is not well controlled for NO_x and that NO_x emissions “can be cut in half at no capital cost whatsoever by simply requiring Georgia Power to operate its existing SCRs continuously throughout the year.” The Commenters also state that although the SO₂ emission rate at each Plant Scherer unit is often very low, that at times the SO₂ emission rates are as much as ten times higher, and that the current controls are not consistently achieving the level of control that they are capable of. Therefore, the Commenters assert that EPA must require Georgia to prepare an FFA for this facility.

Response 4.a: As discussed in Response 2, Georgia’s source selection methodology was reasonable and was adequately documented in its Haze Plan. The fact that certain sources, including the 16 sources identified by the Commenters, were not selected for FFAs for either SO₂ or NO_x for this planning period is the result of the reasonable application of Georgia’s source selection process and source selection thresholds. In other words, if sources were selected by the State, they were selected because the data supported the selection of that source. The inverse is also true regarding sources that were not selected. As discussed in Response 3, NO_x impacts were considered by the State, but no sources were selected for NO_x controls

(including these sources highlighted by the Commenters) because visibility impacts did not exceed the State’s source selection threshold. To the extent that the 16 sources identified by Commenters were not selected by Georgia, the Responses to Comments 2 and 3 generally address why these sources were not selected and why EPA agrees with the State that it was reasonable for this planning period to not select these sources. To summarize, Georgia selected a sufficient number of sources under Georgia’s jurisdiction to ensure that sources responsible for the largest visibility impacts to Class I areas completed FFAs for this planning period. Georgia has discretion under the RHR to determine its source selection methodology and Georgia’s source selection process, and the sources that Georgia selected were reasonable and the Haze Plan complied with the CAA and RHR for this planning period. While Georgia could have used its discretion to select other sources in addition to those screened in during its source selection process, including some or all of the sources that the Commenters highlight, Georgia was not required to do so.

Throughout the Commenters’ discussion of these 16 sources, however, the Commenters raise several additional points that have not yet been fully addressed in prior responses. Regarding the comment that Plant Scherer is not well-controlled for NO_x, this was not a relevant consideration for Georgia’s source selection process. Plant Scherer did not meet Georgia’s two percent combined sulfate plus nitrate AoI threshold for visibility impacts and therefore was not selected for further PSAT analysis during the State’s initial screening process. Specifically, Georgia’s (through VISTAS’ modeling) AoI analysis found that Plant Scherer’s combined sulfate and nitrate impacts would be 0.79 percent for Cohutta, 0.71 percent for Okefenokee, and 0.56 percent for Wolf Island. See Haze Plan, Appendix E–7b. These numbers fell below Georgia’s two percent AoI threshold for visibility impacts, and therefore, the State did not consider this source for further PSAT analysis (or an FFA). By way of comparison, Georgia calculated Plant Bowen’s (another Georgia Power facility) combined nitrate and sulfate AoI impacts as 20.74 percent for Cohutta, 14.67 percent for Okefenokee, and 11.78 percent for Wolf Island, which is why Plant Bowen was considered for further PSAT tagging and was ultimately selected for an FFA for SO₂, while Plant Scherer was not. EPA agrees with Georgia’s combined nitrate

and sulfate AoI calculations and finds the State’s methodology and the results of this methodology reasonable.

Regarding the Commenters’ comments that variability in the emissions at Plant Scherer warrant an emission limit of 0.01 to 0.02 pound (lb)/million British thermal units (lb/MMBtu), as noted above, Georgia did not select Plant Scherer for an FFA because the visibility impacts from this source were well below Georgia’s source selection thresholds. As Plant Scherer was not selected for an FFA, consistent with the requirements under the RHR, Georgia does not have to address the limits at the source as suggested by the Commenters.

Comment 4.b: Regarding Georgia Power—Plant Wansley (Plant Wansley), the Commenters state that while the facility has ceased to operate, nothing in the SIP submission prevents Plant Wansley from restarting operations with corresponding increases in emissions in the future. Separately, the Commenters express concerns that the documentation of the shutdown of Plant Wansley described in the NPRM does not adequately prevent Plant Wansley from restarting operations. The Commenters assert that this shutdown must be incorporated into the Haze Plan.

Response 4.b: Even if EPA were to assume that Plant Wansley had not shut down, Georgia still would not have selected this source because the combined sulfate and nitrate AoI impacts based on VISTAS’ 2028 projections for this facility, which project emissions without this shutdown, are 1.09 percent for Cohutta, 0.67 percent for Okefenokee, and 0.77 percent for Wolf Island, all of which are well below the State’s two percent AoI threshold. Therefore, even if the shutdown documentation for Plant Wansley was inadequate as asserted by the Commenters (which is not the case, as explained below), Georgia satisfied its RHR obligations under 40 CFR 51.308(f)(2) and considered and reasonably explained the methodology by which it selected sources for FFAs that contribute to visibility impairment in Class I areas.

However, Georgia did not just revoke the Part 70 operating permit for Plant Wansley as stated by the Commenters. Rather, Georgia’s December 28, 2022, letter to Georgia Power states that it revoked “all Georgia Air Quality Permits previously issued to this facility,” which would include both the facility’s preconstruction permits and the facility’s Part 70 permit that contains applicable requirements (including those originating from the

preconstruction permits). Restarting the facility—a concern raised by the Commenters—could not be accomplished without the submission of an application for a permit, as specified in Paragraph 391–3–1–.03 of the Georgia Rules for Air Quality Control³⁷ and issuance of an entirely new preconstruction permit, which would likely need to be a major source NSR permit. These major NSR permits generally require Best Available Control Technology for a PSD Permit or Lowest Achievable Emission Rate for a Nonattainment New Source Review permit. The Commenters appear to agree and state that “Any attempt to restart a boiler at Plant Wansley would require a new construction or major modification permit including either a prevention of significant deterioration (PSD) or new source review (NSR) analysis.”

Comment 4.c: In regards to Transcontinental Gas Pipe Line Co., LLC, Compressor Station 120, the Commenters state that this facility emitted 2,283.57 tons of NO_x in 2020 and likely impacts 12 Class I areas, and that there are likely feasible and cost-effective controls available to reduce this facility’s NO_x emissions. Therefore, the Commenters assert that EPA must require Georgia to conduct an FFA of potential controls for Compressor Station 120. Regarding CEMEX Southeast, LLC, the Commenters state that this facility emits 1,424.37 tons per year (tpy) of NO_x and 130.87 tpy of SO₂ and likely impacts eight Class I areas, and that there are likely available controls that could reduce haze-forming emissions from CEMEX Southeast, LLC that Georgia failed to consider in its SIP revision.

As for the 12 additional sources identified by the Commenters, all 12 of the listed sources have reported NO_x and/or SO₂ emissions in the 2020 NEI and, according to the Commenters’ analysis, have a Q/d value above five for multiple Class I areas in the Southeast. For example, the Commenters state that Rome Linerboard Mill has a Q/d value of as high as 28.80 for Cohutta in Georgia and that NPS has noted in its consultation materials that the facility ranked third for haze contributions to VISTAS Class I areas based on cumulative AoI screening results and was in the top 80 percent of total AoI impact for five Class I areas. Additionally, Commenters assert that Georgia-Pacific Cedar Springs LLC is another paperboard mill that Georgia did not select but should have selected.

The Commenters state that this facility emits 2,461.26 tpy of NO_x and 338.2 tpy of SO₂ and likely impacts 16 Class I areas.

Response 4.c: For the same reasons as stated above in Responses 2 and 3 regarding the adequacy of Georgia’s source selection methodology, EPA also disagrees that Georgia should have selected Transcontinental Gasoline Company LLC—Compressor Station 120; CEMEX Southeast, LLC; Green Power Solutions; International Paper Co.—Temple Inland Rome Linerboard Mill (Temple-Inland—Rome Lumber Mill); Georgia Pacific Cedar Springs LLC; Interstate Paper LLC; Georgia Pacific Consumer Products LP—Savannah River Mill; Rayonier Performance Fibers LLC; PCA Valdosta Mill; C–E Minerals Plants 1, 2, and 6; Graphic Packaging Macon Mill; Weyerhaeuser NR Port Wentworth; Pinova, Inc.; and Thermal Ceramics. GA EPD identified and evaluated these sources as part of its AoI screening approach and did not select them for FFAs because they did not meet Georgia’s source selection thresholds.³⁸

Comment 5: The Commenters assert that Georgia’s cost effectiveness analyses are arbitrary and that “[a]lthough EPA acknowledges that Georgia relied on the Arkansas Excel document for its cost-effectiveness determinations, EPA does not address whether it was reasonable for Georgia to do so.” Additionally, they state that “to provide a reasoned basis for its decisions, Georgia must first establish a threshold, or explain and justify some other objective measure, for determining cost effectiveness that is in line with other states’ chosen measures and apply that threshold consistently across its Four-Factor Analyses.”

According to the Commenters, there are three specific problems with Georgia’s reliance on the Arkansas Excel spreadsheet. First, the Commenters assert that this spreadsheet does not consider that Round one cost-effectiveness measures were considered alongside visibility benefits and cite to EPA’s 2021 Clarifications Memo’s statement that “a state should not use visibility to summarily dismiss cost-effective potential controls.”³⁹ Second, the Commenters state that they expect that with each successive planning period, the cost of controls should increase because the lowest cost emission reductions would have already

been implemented, and therefore, the Commenters assert that relying on first planning period costs to guide second planning period costs is improper. Third, Commenters state that the “Arkansas” spreadsheet fails to include the high end of first round cost-effectiveness values up to \$10,000/ton.” In addition to this last point, the Commenters assert that “Arkansas wrongfully included [in its spreadsheet] some cost-effectiveness data that is too old to escalate according to EPA’s Control Cost Manual.”

The Commenters instead suggest that Georgia should have adopted a firm cost threshold such that controls below the threshold would be selected and controls above the threshold would not be selected. Alternatively, the Commenters state that Georgia “should have explained or justified some other objective measure.” The Commenters also contend that EPA must reject Georgia’s use of this approach because it would be inconsistent with EPA’s reasoning in its proposal to partially disapprove Arizona’s SIP revision in which Arizona used a cost threshold of \$6,500/ton. Finally, the Commenters state (in the Kordzi Report) that data from Florida River Power Plants 1 and 2 are missing from this spreadsheet and should have been included and considered.

Response 5: There is no requirement in the CAA or the RHR for states to establish bright line cost effectiveness thresholds when evaluating control costs in FFAs. The CAA and the RHR instead require states to evaluate the costs of compliance, and EPA’s 2019 Guidance recommends that states follow the recommendations in EPA’s “Air Pollution Control Cost Manual” (CCM)⁴⁰ to facilitate apples-to-apples comparisons of different controls options for the same source, and comparisons across different sources. 2019 Guidance at 31.

As described in Section 7.7 of the Haze Plan, for the cost of compliance factor, Georgia EPD did not set a specific cost per ton threshold, but rather analyzed each facility using the information in EPA’s CCM and 2019 Guidance to determine whether a given control measure is cost-effective based on a number of factors, including the historical range of cost/ton values. The historical cost information was derived from an Excel spreadsheet assembled by Arkansas Department of Environmental Quality that compared the cost of

³⁷ Georgia Rule 391–3–1–.03. “Permits. Amended” is available at: <https://rules.sos.ga.gov/GAC/391-3-1-.03>.

³⁸ See “Individual VISTAS Class I Areas Results” available at: <https://www.metro4-sesarm.org/content/task-5-area-influence-analysis>.

³⁹ “Round one” and “Round two” refer to the first and second planning periods, respectively.

⁴⁰ EPA’s “Air Pollution Control Cost Manual” is available at: <https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations/cost-reports-and-guidance-air-pollution>.

compliance from the first planning period for SO₂ and NO_x in dollars per ton for various types of industrial emission units (e.g., EGU Boiler, Industrial Boiler, Kiln, Smelter, all Non-EGU). The spreadsheet was updated with VISTAS data (Appendix G–4) and presents the maximum and minimum cost/ton and various statistical percentile values. While Georgia did not choose a bright-line cost effectiveness threshold, Georgia's use of this spreadsheet was an objective measure by which Georgia determined the reasonableness of control costs for this second planning period.

EPA acknowledges the Arkansas cost spreadsheet includes Best Available Retrofit Technology (BART) control determination costs that considered the visibility benefits of the controls pursuant to the CAA and RHR under 40 CFR 51.308(e)(1)(ii)(A).⁴¹ However, this fact does not change EPA's position that Georgia's use of this spreadsheet was reasonable. First, Georgia did not consider visibility in making its control determinations for this planning period. Just as importantly, while EPA agrees in general with the Commenters that data from the first planning period is necessarily an imperfect yardstick by which to determine the reasonableness of control measures for this second planning period—in part because the first planning period included BART determinations whereas the second planning period does not—the information is nonetheless highly relevant. Moreover, Georgia did not set a cost threshold based on the low-end or mean (or median) cost of first planning period controls. In fact, all controls rejected by Georgia were more costly than the 98th percentile of all first planning periods costs. This also addresses the Commenters' contention that with each planning period, control costs should increase.

Finally, regarding the Commenters' third concern with Georgia's use of the Arkansas spreadsheet that the spreadsheet may include missing data, EPA has reviewed the concern raised in the Kordzi⁴² report that the Florida Crystal River Power Plant Units 1 and 2 determinations were excluded from this spreadsheet. According to the Kordzi Report cited by the Commenters,

⁴¹ 40 CFR 51.308(e)(1)(ii)(A): “. . . the State must take into consideration . . . the remaining useful life of the source, and the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology.”

⁴² Joe Kordzi, A Review of EPA's Proposed Approval of the Georgia Regional Haze State Implementation Plan (June 2024) (hereinafter referred to as “Kordzi Report”) included in the docket for this action as Exhibit 1 in the Conservation Group letter (July 3, 2024).

the Crystal River Power Plant Units 1 and 2 determinations required the source to either (1) install dry flue gas desulfurization (FGD) and SCR at a cost-effectiveness of \$10,000/ton for SO₂ BART and \$8,224/ton for NO_x BART or (2) retire by December 31, 2020. This is not accurate. While both options were considered in the Florida first planning period regional haze NPRM, the final rule selected only the shutdown option based upon the Florida Department of Environmental Protection's decision to adopt this shutdown in a SIP supplement. See 78 FR 53,262 (August 29, 2013). For this reason, there was no add-on control adopted, and therefore no cost to consider. Although EPA was not involved in the preparation of the Arkansas spreadsheet, this may explain why the Crystal River Power Plant facility was not included in the spreadsheet. In any event, EPA concludes that Georgia's decision not to consider this facility was reasonable.

Regarding the Commenters' assertions that Georgia's approach is unreasonable when compared to states such as Colorado and Nevada, which elected to set cost effectiveness thresholds of \$10,000/ton of pollutant removed, and to Arizona, which elected to set a cost effectiveness threshold of \$6,500/ton of pollutant removed, Georgia was not required by the CAA or RHR to adopt a similar bright-line cost effectiveness threshold. Moreover, the Commenters themselves do not suggest a specific bright-line threshold, let alone provide rationale to support such a threshold. Georgia applied its chosen methodology in a way that is reasonable by rejecting controls with cost-effectiveness values above the 98th percentile of first planning period costs.

As for the Commenters' position that approval of Georgia's plan would be inconsistent with the rationale within EPA's proposed disapproval of Arizona's plan regarding the importance of adequate state justification, EPA disagrees. In EPA's proposed disapproval of Arizona's regional haze SIP, EPA stated that Arizona “did not provide an adequate justification for how this threshold resulted in a reasonable set of control measures,” and in several instances in the notice of proposed rulemaking, EPA noted that Arizona ignored its own threshold without justification. See 89 FR 47,429 (May 31, 2024). That is quite different than Georgia, which did not use a bright-line threshold at all and instead consistently applied the statistical methods in the Arkansas spreadsheet to only reject control costs that exceed the 98th percentile of first planning period costs identified within that spreadsheet.

Comment 6: The Commenters assert that EPA shirks its duty to review Georgia's source-specific FFAs. The Commenters state that EPA proposes to merely “rubber stamp” the State's SIP submission, without engaging in any meaningful, independent, analysis of Georgia's FFAs for the three facilities the State selected. Additionally, the Commenters assert that “[d]espite EPA's stated expectations for this planning period, Georgia does not require any of the sources to adopt additional control measures to make reasonable progress.”

Response 6: EPA's proposed approval of Georgia's Haze Plan is a proper exercise of EPA's authority under the CAA. Congress crafted the CAA to provide for states to take the lead in developing implementation plans, but balanced that decision by requiring EPA to review the plans to determine whether a SIP meets the requirements of the CAA. When reviewing SIPs, EPA must consider not only whether the state considered the appropriate factors in making decisions, but acted reasonably in doing so. In undertaking such a review, EPA does not usurp the state's authority but ensures that such authority is reasonably exercised.

Contrary to the comment that the Agency “shirks” its CAA obligations, EPA has performed its duties with diligence. EPA carefully evaluated the Haze Plan and the associated record and engaged in a thorough analysis of each control option, including each of the underlying cost assumptions used in the calculations. Georgia conducted extensive technical work in support of its SIP submittal, and therefore, EPA independently evaluated each FFA, including costs, and compared each FFA's control determination against the CCM. In the Technical Support Document (TSD) to the NPRM, EPA documented the cost assumptions that the State relied upon in its FFAs for transparency to the public.

Each of the FFAs are discussed in more detail in the responses to comments that follow, but EPA notes that Georgia did adopt important control measures into the SIP as necessary for reasonable progress for the second planning period, including the coal burning prohibition at IP-Savannah. While that facility had voluntarily elected to stop burning coal at the No. 13 Power Boiler, this prohibition was not federally enforceable and permanent until incorporated into the Georgia SIP. In the absence of placing this prohibition into the SIP, the facility could have lawfully restarted burning coal at any time, which is inconsistent with making reasonable progress under the CAA and RHR. EPA's specific

analyses for each FFA are addressed in responses to comments below that address each of the three facilities selected by Georgia.

Comment 7: The Commenters assert that “Plant Bowen’s SO₂ emission rates have increased since round one of regional haze, which is contrary to the intent of the Regional Haze Program.” The Kordzi Report describes how, although Plant Bowen was reviewed for BART in the first round of regional haze planning, Georgia relied on the Clean Air Interstate Rule (CAIR) to satisfy BART for SO₂ and NO_x for EGUs and did not include any enforceable mechanism to ensure Plant Bowen’s emissions did not increase, citing to projected emissions from Plant Bowen and Q/d values.

Response 7: Although the combined SO₂ emission rates at Plant Bowen for Units 1–4 have increased since the first planning period as discussed below, focusing only on these emission rates from these units ignores the significant declines in total facility-wide SO₂ emissions from this facility. EPA also does not agree with the Commenters that an increase in emission rates within permitted levels during the first planning period, on its own, is contrary to the intent of the regional haze program.

In 2010, after wet scrubbers had been installed to control SO₂ emissions at Plant Bowen’s four units, this facility’s annual average SO₂ emission rates were approximately 0.068 lb/MMBtu based on Clean Air Markets Program Data (CAMPD) reviewed by EPA. In 2023, the annual average emission rate was 0.13 lb/MMBtu. This increase was primarily due to a change in coal used at the facility from Central Appalachian bituminous coal (CAPP coal) to Illinois Basin coal (IB coal), with IB coal containing a higher sulfur content.⁴³ These coal types are discussed in more detail in EPA’s responses to later comments regarding Plant Bowen’s FFA along with discussion as to why switching back to CAPP coal is not cost effective.

While emission rates are an important consideration because FFAs generally yield emission controls that result in updated emission rates, in this instance, only considering emission rates as the Commenters propose would ignore an important aspect of the problem. Here, the total amount of SO₂ emissions is also important. The first regional haze planning period spanned the period from 2000–2018, with SIPs due in 2007. Plant Bowen’s SO₂ annual emissions in

2007 were approximately 197,000 tpy prior to the installation of wet scrubbers to control SO₂ emissions. Plant Bowen installed wet scrubbers between 2008 and 2010 at Units 1 through 4. After these wet scrubbers were installed, Plant Bowen’s total facility-wide SO₂ emissions dropped to approximately 7,618 tpy in 2010, and in 2023, SO₂ total emissions from Plant Bowen were 7,143 tpy.⁴⁴ EPA acknowledges that there is year-to-year variability in Plant Bowen’s emission rates and total emissions due to changes in demand for electricity, sulfur content of the fuel used at Plant Bowen, and scrubber efficiency. However, the general trend at this facility has been a significant reduction in total SO₂ emissions during the first planning period. Contrary to the Commenters’ assertions, the fact that SO₂ emission rates have varied to some extent at this facility during the first planning period is not contrary to the RHR.

Comment 8: As a general matter, the Commenters contend that EPA did not scrutinize Georgia’s analysis of Plant Bowen and did not consider the comments submitted by the Commenters to Georgia, including the Stamper report.⁴⁵ Specifically, the Commenters assert that Georgia greatly overstated the costs of switching back to lower sulfur CAPP coal for three primary reasons.

Response 8: EPA disagrees with the Commenters. Regarding the Commenters’ assertion that EPA did not scrutinize the FFA or consider the Commenters’ state-level comments provided to Georgia, that is not correct. EPA evaluated Georgia’s entire SIP submittal, including the FFAs, the state-level comments, and the State’s responses to those comments.

Comment 8.a: First, the Commenters argue that Georgia’s assumption of an SO₂ rate of 0.07 lb/MMBtu when burning CAPP coal was improper because Plant Bowen averaged 0.05 lb/MMBtu or lower for many years when combusting CAPP coal.

Response 8.a: The Commenters are incorrect. The data submitted by the Commenters in the Kordzi Report contains emission data for Plant Bowen Units 1 through 4 including for the years 2010 through 2014. As previously

⁴⁴ Facility and unit emissions and emissions rate data is from EPA’s CAMPD available at: <https://campd.epa.gov/>.

⁴⁵ The July 25, 2022, Stamper Report, “Review and Comments on Reasonable Progress Four-Factor Analyses Evaluated as Part of the Georgia Regional Haze Plan for the Second Implementation Period,” is included as Exhibit 2 of Appendix H–3a of the Haze Plan which is included in the docket for this action.

stated, Plant Bowen began to transition to IB coal in 2014. EPA was not able to reproduce the 0.05 lb/MMBtu average in the Kordzi Report. Based on the information submitted by the Commenters, the actual average SO₂ emissions in lb/MMBtu across all four boilers from 2010–2013 is 0.065 lb/MMBtu (*i.e.*, prior to any switch to IB coal), not 0.05 lb/MMBtu as stated by the Commenters. The average for all four boilers from 2010 through 2014 is 0.069 lb/MMBtu. These numbers are very close to the SO₂ emission rate of 0.07 lb/MMBtu assumed by Georgia if Plant Bowen were to switch to CAPP coal. EPA further confirmed these numbers by reviewing information from EPA’s CAMPD.⁴⁶

Comment 8.b: Second, the Commenters argue that Georgia assumed in its analysis that CAPP coal has a higher sulfur content than most of the CAPP coal that Plant Bowen previously burned.

Response 8.b: This is not correct based on the data provided by the Commenters. The statement cited by the Commenters in the Kordzi Report states that “Bowen’s estimate assumes a coal sulfur content of 1.1 percent. As shown above, this is slightly higher than most of the previous CAPP coal it burned.” However, taking a simple average of the sulfur content of all coal combusted across all four boilers contained within Table 2 of the Kordzi Report yields an average of 1.08 percent sulfur content for CAPP coal combusted from 2010–2013 and 1.19 percent for CAPP coal combusted from 2010–2014. Again, these numbers are very close to what Georgia relied upon for the Plant Bowen FFA, and EPA agrees with Georgia’s assumption regarding the sulfur content of CAPP coal given the averages discussed above.

Comment 8.c: Third, the Commenters—and specifically the Kordzi Report provided as an attachment to the comments—state that based upon publicly available Energy Information Agency (EIA) Form 923 data, railroad-transportable CAPP coal with a sulfur content of 1.05 percent or less is available to purchase from Kentucky, Virginia, and West Virginia at delivered prices (*i.e.*, including both fuel costs and transportation costs) that are lower per MMBtu than what Plant Bowen currently pays for IB coal of a higher sulfur content. Based on this information, the Commenters argue that EPA must reject Georgia’s FFA for Plant Bowen.

⁴⁶ CAMPD data is available at: <https://campd.epa.gov/>.

⁴³ See Appendix G–1b, at p. 13 (noting that Plant Bowen switched to IB coal in 2014).

Response 8.c: EPA also disagrees with the Commenters' contention that Plant Bowen could purchase CAPP coal from mines in Kentucky, Virginia, and/or West Virginia at prices that are less expensive than the higher sulfur IB coal that Plant Bowen primarily relies upon. Table 4 within the Kordzi Report contains information obtained from EIA Form 923 for the year 2023, which includes coal production and sale information such as coal mine name, quantity sold, average heat content of the coal, average sulfur content of the coal, fuel cost in cents per MMBtu, total cost of each purchase of coal, and whether the purchase was pursuant to a contract or was made on the spot market. Based upon this data, the Kordzi Report tabulated the total cost of coal per MMBtu from mines that met the following criteria: the mines were only within Kentucky, Virginia, or West Virginia; the mines were capable of transporting coal by railroad; and the coal sold by the mine had sulfur content below 1.05 percent. Based upon this data, the Commenters conclude that the average cost of such coal is \$4.89/MMBtu. The Commenters also conclude that this is less expensive than the average cost of Plant Bowen's coal purchases in 2023, which the Commenters assert is \$5.33/MMBtu.

First, EPA reviewed the unredacted fuel cost information contained in the technical appendix submitted by Georgia to EPA prior to publishing the NPRM, and EPA affirms that the information in that technical appendix supports the State's and EPA's conclusions that procuring CAPP coal would be significantly more costly than Plant Bowen's current purchases of IB coal. Second, there is inadequate supply of coal fitting the type preferred by the Commenters to supply a facility as large as Plant Bowen. According to the EIA 923 form data cited by the Commenters, in 2012, Plant Bowen purchased 4,737,780 tons of coal. In that same year, 32,145,400 tons of coal were sold meeting the criteria preferred by the Commenters (from Kentucky, Virginia, or West Virginia; no greater than 1.05 percent sulfur content; and railroad-transportable). But in 2023, only 4,900,885 tons of coal meeting the criteria preferred by Commenters were sold to all facilities combined. In other words, if Plant Bowen were to switch to CAPP coal, the demand for CAPP coal created by Plant Bowen alone would almost exceed the entire supply of such coal put into commerce in 2023.

Comment 8.d: Additionally, the Commenters assert that Plant Bowen's cost-effectiveness calculation contains an annual fuel cost of \$86 million to

switch to CAPP coal that is "completely undocumented." Commenters argue that although Plant Bowen claimed this fuel cost as a trade secret and therefore submitted it to EPA as CBI, EPA is required to review this information and declare whether EPA finds that this information meets the documentation requirements contained in 40 CFR 51.308(f)(2)(iii). The Commenters assert that some of the information may not be CBI, including certain fuel cost data, and that EPA must evaluate whether this information is CBI to provide the public with sufficient information to fully evaluate the proposal.

Response 8.d: The costs for switching to CAPP coal were included in the Haze Plan under Appendix A and Appendix B to Appendix G-1b. Georgia Power submitted this cost information under a claim of business confidentiality and provided redacted versions of its proposed four factor analysis, including Appendix B to Appendix G-1b for public release.

Under the CAA and EPA's regulations, a company may assert a business confidentiality claim covering information furnished to EPA. See 40 CFR 2.203(b). Once a claim is asserted, the Agency must consider the information to be confidential and must treat it accordingly unless the Agency finds in a CBI determination that the material is not CBI. See 40 CFR 2.205, 2.301(g). Under 40 CFR 2.204(a), EPA is required to make a CBI determination when the Agency (1) learns that it is responsible for responding to a request under the Freedom of Information Act (FOIA) (5 U.S.C. 552) for the release of business information; (2) desires to determine whether business information in its possession is entitled to confidential treatment, even though no request for release of the information has been received; or (3) determines that it is likely that EPA eventually will be requested to disclose the information at some future date and thus will have to determine whether the information is entitled to confidential treatment. EPA's regulations set forth the specific procedures that EPA must follow when making a CBI determination. 40 CFR 2.204, 2.205, and 2.301(g). Under the regulations, EPA must provide the affected businesses with notice and, usually, an opportunity to comment on the impending CBI determination or release, including an opportunity to justify their CBI claims. See, e.g., 40 CFR 2.204(e), 2.209(d), and 2.301(g)(2). Considering the nature of the comments regarding a switch to CAPP coal, the mechanism by which the Commenters requested that EPA make a CBI determination (*i.e.*, via rulemaking

comment instead of via FOIA), EPA's review of the CBI information in evaluating the reasonableness of the FFA, and EPA's refutation of the Commenters' concerns regarding the costs of switching to CAPP coal, EPA is exercising its discretion under 40 CFR 2.204(a) to not perform a CBI determination at this time. Therefore, EPA is obligated to protect the confidentiality of that information, which precludes the Agency from publicly posting this in the docket at [regulations.gov](https://www.regulations.gov).

Plant Bowen submitted a signed affidavit⁴⁷ to substantiate its CBI claim and provided a public disclosure version of Technical Appendix A and Technical Appendix B to Appendix G-1b of the Haze Plan, with the CBI information redacted. As noted in the public disclosure materials, the redacted information consists of material including "2019 IRP Capacity Planning Documentation," "Delivered Fuel Cost Estimates for PRB and CAPP Coals," "CSX Transportation Contract Language," "CSX Pricelist Information," and variable operating and maintenance costs for switching to CAPP coal such as including the costs from "hydrated lime adjustment," "ammonia adjustment," "fuel additive adjustment," and "activated carbon adjustment" as it relates to CAPP coal. Upon review of the assumptions and information contained in Appendix G used in the cost analyses, including the unredacted information, EPA finds the cost-effectiveness calculations for switching to CAPP coal to be appropriately documented and reasonable based on the available information, justifications, and support for each assumption used in the cost calculation.

Comment 9: The Commenters state that in 2014, Plant Bowen switched from lower-sulfur CAPP coal to IB coal, which they state has a high sulfur content. The Commenters assert that Georgia greatly overstated the costs of switching to Powder River Basin (PRB) coal. Instead of requiring a switch to PRB coal, the Commenters contend that EPA accepted Georgia's and Georgia Power's claims at face value that such a switch would be cost prohibitive. The Commenters argue that Georgia Power's cost analysis contains several problems that cause it to be overinflated.

First, the Commenters argue that Georgia Power wants to earn a 6.04 percent rate of return for electricity that it must purchase to make up for lost capacity. In referencing the Stamper

⁴⁷The affidavit is located in Appendix G-1b of the Haze Plan.

report, they contend that this cost should not be a capital expense but rather should be treated as an operating expense (such as fuel costs) that is not entitled to such returns.

Second, the Commenters argue that Georgia does not make a fair comparison by assuming operating time will increase at the same time it will need to purchase \$51 million worth of electricity to cover lost capacity. The Commenters contend that the FFA does not account for revenue from additional sales of electricity due to increased hours of operation. Additionally, the Commenters argue that the FFA already accounts for an increase in fuel costs in a different line item in the cost analysis, so they argue that Georgia Power is at least, in part, double counting the increased fuel usage of PRB coal.

The Commenters state that even assuming the switch to PRB coal will decrease maximum hourly generating capacity, Georgia Power's cost analysis appears to overstate the need (and cost) for replacement energy. The Commenters contend that based on 2019 plantwide generation rates, Georgia Power would need to purchase only 134,982 megawatt-hour (MWh) to make up for the switch to PRB coal. The Commenters cite to Table A2.2 of the FFA for the proposition that Georgia Power estimated that the switch "would require the purchase of approximately 8,000,000 MWh of energy to replace the deficit" as a result of the assumption that the capacity penalty would apply during all hours of operation. In contrast, the Commenters provide an exhibit that they argue demonstrates that switching to PRB would only impact the peak hours of plant operation, which equates to 5.8 percent of the time according to the Commenters. Even assuming above-average energy prices (\$40/MWh), the Commenters assert that with the switch to PRB coal, the company would consequently need to only spend \$5 million annually, instead of Georgia Power's assumed \$51.7 million.

The Commenters also assert that to the extent that Georgia Power suggests it needs to purchase or build replacement capacity to meet peak demands and reserve margin requirements, the FFA fails to provide the "robust" technical support for this position. As with the energy deficit discussed above, the Commenters contend that Georgia Power fails to establish that it actually has a projected capacity need in any such year. Additionally, the Commenters assert that Georgia Power fails to provide any documentation for current "market rate" or "cost of new construction." As a

result, the Commenters contend it is impossible to verify the needed capacity replacement and cost associated with switching to PRB. The Commenters state that EPA must review Georgia Power's cost assumptions and confirm that the Company's capacity penalty calculations are appropriate.

The Commenters also state that Georgia refuses to make available for public review the calculations and supporting documentation for the cost analysis of switching to PRB coal. The Commenters assert that Georgia and EPA are obligated by the documentation requirements of 40 CFR 51.308(f)(2)(iii) to review this information and declare whether they have found it acceptable, but neither Georgia nor EPA has indicated if they have reviewed the information and found it acceptable. The Commenters argue that a failure by EPA to make an independent determination as to whether this information satisfies the requirements for CBI violates the CAA and the RHR.

Finally, the Commenters contend that Georgia's calculated costs of \$6,424/ton of SO₂ reduced to switch to PRB coal is cost effective, and this cost-effectiveness value is lower than thresholds used by other states such as Colorado (\$10,000/ton), New Mexico (\$7,000/ton), and Arizona (\$6,500/ton). Moreover, the Commenters state that cost effectiveness should be lower to reflect that switching to PRB coal would result in 46 percent lower NO_x emission rates without changing Plant Bowen's use of NO_x controls. They argue that the NO_x reductions of switching to PRB coal would result in a cost-effectiveness of \$4,749/ton of combined SO₂ and NO_x removed.

Response 9: EPA disagrees with the Commenters' argument that EPA did not scrutinize GA EPD's analysis of Plant Bowen and did not consider the public comments submitted at the state level.

Regarding the Commenters' argument that in 2014 Plant Bowen switched from lower-sulfur CAPP coal to IB coal which has a higher sulfur content, EPA acknowledges that the sulfur content for IB coal is higher and SO₂ emissions have increased with the switch to IB coal. This switch is also discussed in Response 8.

EPA disagrees with the Commenters' argument that Georgia greatly overstated the costs of switching to 100 percent PRB coal. With a fuel switch to PRB coal, there would be a 27 percent facility derate based on the average heat content of PRB coal ((8,800 British thermal units per pound (Btu/lb)) in comparison to the current coal being used at Plant Bowen, which is IB coal

with an average heat content of 12,002 Btu/lb.⁴⁸ This derate resulting from the reduced heat content of PRB coal would result in Plant Bowen having 27 percent less total electricity generation capacity. This is a real cost that Georgia was correct to account for in the FFA.

Through a letter to GA EPD dated August 8, 2022, Georgia Power responded directly to similar comments submitted by the Commenters to GA EPD. This letter was included as part of Georgia's submittal and is located within Appendix G-1e to the Haze Plan. Within that letter, Georgia Power explained that "[t]he capacity penalty costs in the Plant Bowen FFA represented the costs to replace the derated unit capacity to meet the reserve margin required in the Southern Company system." Georgia Power also cited to the FFA, which notes that "Plant Bowen Units 1-4 provide capacity value by supporting system reliability and by avoiding costs associated with replacement capacity that would be required to meet customer peak demands and reserve margin requirements in the absence of such Plant Bowen units. Without these units, Georgia Power would have to procure short-term and long-term replacement capacity in order to restore Georgia Power and the Southern Company system to a comparable level of reliability that the system currently holds."

The Commenters conflate two distinct electric generation concepts: capacity and generation. They are not the same. Nor are the financial costs and revenues associated with each the same. According to the EIA, "[e]lectricity generation capacity is the maximum electric output an electricity generator can produce under specific conditions."⁴⁹ "Electricity net generation," on the other hand, "is the amount of gross electricity generation a generator produces minus the electricity used to operate the power plant."⁵⁰ It is this incorrect conflation of concepts that leads the Commenters to incorrectly conclude that Georgia Power could make up for any lost capacity at Plant Bowen by simply purchasing 134,982 MWh of electricity annually. In general, the electrical grid can experience high periods of demand for short durations. This is known as "peak" electricity demand. To ensure reliability of the electrical grid, electric utilities must have sufficient capacity available to

⁴⁸ See Section 4.4.1.1 on p. 15 of the Haze Plan in Appendix G-1b.

⁴⁹ <https://www.eia.gov/tools/faqs/faq.php?id=101&t=3>.

⁵⁰ *Id.*

ensure that these peak loads can be met. The Commenters' suggestion that Georgia Power could simply purchase 134,982 MWh of generated electricity does not account for the need for Georgia Power to also have adequate capacity available for the grid, even at times of peak demand. Georgia Power refers to this concept as the "reserve margin" in its August 8, 2022, letter.

EPA agrees with Georgia's assessment that requiring PRB coal would result in a capacity derate, and that this capacity derate would impact electrical reliability by reducing peak available capacity to a sufficient extent that Georgia Power would have to "procure short-term and long-term replacement capacity." Over the long-term, this would likely result in the need for Georgia Power to construct new generation capacity equivalent to the capacity derate, which would be a capital cost and not an operating expenditure. EPA thus does not agree with the Commenters that this capacity derate was mis-classified within the FFA as an operating expense. Plant Bowen Units 1 and 2 each have a maximum capacity of 724 megawatts (MW), and Units 3 and 4 have a maximum capacity of 892 MW. See Haze Plan Appendix G–1b, Note 1 to Table A2.2. Combined, these four units have a maximum capacity of 3,232 MW if combusting IB coal. A 27 percent derate of these units associated with a switch to PRB coal would reduce the maximum capacity of Plant Bowen to 2,359 MW. The difference between these two numbers is 873 MW, which is the total capacity that Georgia Power would no longer have available to put onto the grid.

Moreover, according to a recent IRP Update submitted by Georgia Power to the Georgia Public Service Commission (GA PSC), "the Company's current projections reflect load growth of 6,600 MW through the winter of 2030/2031, which is approximately 17 times greater than that previously forecasted."⁵¹ Due to this projected growth, Georgia Power requested that the GA PSC approve the construction of 1,400 MW of new generation capacity at Plant Yates, the authority to develop, own, and operate up to 1,000 MW of battery energy storage systems, the long term purchase of 750 MW of capacity from Mississippi Power through a power purchase agreement, and the long term purchase of 230 MW of capacity from Santa Rosa

Energy Center through a power purchase agreement.⁵²

On April 26, 2024, the GA PSC issued an order in which it took action on Georgia Power's IRP Update filing. In that order, the GA PSC approved much of Georgia Power's IRP Update filing, with certain modifications subject to a stipulation adopted by the GA PSC. Critically, within the GA PSC's April 26, 2024, order, the GA PSC stated the following as a finding of fact:

Substantial empirical evidence shows that the load projected by the Company is indeed coming to Georgia. There is a large economic development pipeline made up of businesses seeking to locate in Georgia, and the Company has continued to see progress from large load customers included in its forecast, as well as accelerated customer load ramps and other tangible evidence of growth. The number of committed Georgia Power customers continues to increase. As of the 2023 IRP Update filing, the Company had already been chosen to serve over 3,600 MW of load from the approximately 17,000 MW pipeline of economic development, nearly 3,000 MW of which is already under construction. (Rebuttal Hearing Tr. 2031.) Since the 2023 IRP Update filing in October of 2023, the economic development pipeline has grown from 17,000 MW to 21,000 MW, and Georgia Power has been selected to serve an additional 2,602 MW. The large load customers included in the Company's forecast are moving forward and making progress without material delay. The Stipulation will allow Georgia Power to reliably serve both its existing customers and the new ones.⁵³

On August 29, 2024, the GA PSC took further action within this IRP Update docket by granting Georgia Power a certificate of convenience and public necessity for the construction of Plant Yates Units 8–10, and the PSC noted that "time is of the essence and the Commission declines to accept any further delay in putting these assets in place," and "[i]n light of . . . the state of Georgia's recent extraordinary economic growth, and its citizens and business' pressing need for economical and reliable energy to meet this growth, the Commission agrees with the Company and Staff that certification of Plant Yates Units 8–10 is reasonable and appropriate."⁵⁴ Plant Yates Units 8–10 would provide Georgia Power with approximately 1,400 MW of additional generation capacity.

These recent actions by the GA PSC are highly relevant to the Commenters' assertions. Specifically, the Commenters

argue that the Plant Bowen FFA's conclusion is unsubstantiated regarding the need for Georgia Power to construct or otherwise acquire additional generation capacity to replace the 873 MW of lost capacity if Plant Bowen were required to utilize lower sulfur, lower heat content PRB coal. Based on the recent factual findings of the GA PSC, which EPA acknowledges, EPA does not agree with the Commenters. While requiring Plant Bowen to switch to PRB coal would reduce SO₂ emissions, it would do so at the expense of generation capacity, and the need to construct or procure new generation capacity was therefore properly considered within the FFA. EPA therefore agrees with Georgia's conclusions that this capacity derate should be classified as a capital expenditure since it would result in the need to construct or procure access to new capital, *i.e.*, 873 MW of generation capacity. EPA also agrees that the financial and energy costs associated with this capacity derate are not reasonable under the RHR. 40 CFR 51.308(f)(2)(i).

The CBI filings provided by Georgia Power as part of the Plant Bowen FFA further support EPA's conclusion. Regarding the Commenters' request that EPA determine whether these materials are in fact CBI, for the same reasons stated in Response 8, EPA is exercising its discretion to not make a formal CBI determination regarding the redacted materials contained within the Plant Bowen FFA at this time and disagrees with the Commenters' assertion that EPA is required to make such a determination here. Nonetheless, throughout this rulemaking process, EPA has reviewed the unredacted indirect costs that GA EPD submitted in Technical Appendix B of Appendix G–1b of the Haze Plan (along with all other components of the Haze Plan). As requested by Commenters, EPA confirms that it reviewed this CBI information during the review of the Haze Plan and finds that it provides adequate technical justification in support of the submittal. Because the capacity derate would result in the need for Georgia Power to construct or procure new long-term generation capacity, EPA also agrees that Georgia Power would reasonably be entitled to a rate of return on this capital, which Georgia Power substantiated in its FFA.⁵⁵

⁵¹ Georgia Power "2023 Integrated Resource Plan Update," at p. 1, available at: <https://georgiapower.com/content/dam/georgia-power/pdfs/company-pdfs/2023-irp-update-main-document.pdf>.

⁵² *Id.* at pp. 15–25.

⁵³ GA PSC Order Adopting Stipulated Agreement, at pp. 7–8, available at: <https://psc.ga.gov/search/facts-document/?documentId=218484>.

⁵⁴ GA PSC Order Granting Certification of Plant Yates Units 8–10, available at: <https://psc.ga.gov/search/facts-document/?documentId=219790>.

⁵⁵ The Commenters also incorrectly note that Georgia Power is entitled to a 6.04 percent rate return. This 6.04 percent figure is identified in Table A1.2 as Georgia Power's firm-specific interest rate as authorized by the Georgia Public Service

The Commenters contend that there is a mismatch in assumptions in the FFA because the FFA assumes operating time will increase if combusting PRB coal at the same time as Plant Bowen would need to purchase \$51 million worth of electric generating capacity to cover lost capacity due to the derate associated with reduced heat content of PRB coal. The Commenters are incorrect. The Plant Bowen FFA states that “the level of unit capacity derate does not impact the annual SO₂ emissions reduction since the analysis assumes that the 2019 baseline annual heat input is achievable at this derated unit capacity with an increased amount of operating time.” The FFA properly assumed an increase in operating time when comparing SO₂ emissions if combusting PRB coal compared to IB coal because those emissions are based on projected 2028 emissions. The 2028 emission projections, in turn, are based in part upon projections about the quantity of electricity that will actually be generated. The Plant Bowen FFA reasonably increased operating hours in 2028 when modeling SO₂ emissions if operating on PRB coal to ensure that the same quantity of electricity was generated in both the PRB scenario and the IB coal scenario. Again, the concept of total generation capacity of the plant that is available to provide load to the grid as needed is separate and distinct from electricity that is actually generated and placed onto the grid. EPA thus disagrees that there is a “mismatch” in assumptions in the FFA.

Regarding the comment that the cost of \$6,424/ton of SO₂ reduced associated with a switch to PRB coal is cost-effective because it is lower than thresholds used by other states (Colorado—\$10,000/ton, New Mexico—\$7,000/ton, and Arizona—\$6,500/ton), EPA disagrees. Flexibility afforded to states has long been a hallmark of the regional haze program. *See, e.g.*, 82 FR 3078, 3088 (January 10, 2017) (“While these final revisions to the RHR continue to provide states with considerable flexibility in evaluating the four reasonable-progress factors, we expect states to exercise reasoned judgment when choosing which sources, groups of sources or source

categories to analyze.”); 2019 Guidance at p. 4 (“States have discretion to balance these factors and considerations in determining what control measures are necessary to make reasonable progress.”). Inherent in this flexibility is that different states may choose bright-line cost effectiveness thresholds, and some may instead choose to adopt a different methodology to determine whether controls are cost effective (*i.e.*, Georgia’s approach). For those states that do choose to use bright-line cost-effectiveness thresholds, those thresholds may differ from state-to-state. Different states will take different approaches to comply with the RHR, and various methods of complying with the rule may be reasonable depending on a number of facts and circumstances (*e.g.*, number of sources in the state; magnitude of emissions of visibility impairing pollutants from sources in the state; visibility impairment at impacted Class I areas).

Due to this flexibility, EPA disagrees with the premise of the Commenters’ assertion, which appears to be that cost effectiveness thresholds in one state should be determinative of whether controls are cost-effective in another state. Taken to its logical conclusion, the Commenters’ position seems to be that EPA’s determinations regarding the approvability of bright-line cost-effectiveness thresholds in states such as Colorado, New Mexico, and Arizona should serve to set a nationwide cost-effectiveness floor. The RHR requires no such thing, and indeed, the Commenters cite to no legal authority for their position.

As discussed in Response 5, Georgia relied on a spreadsheet of first planning period costs developed by Arkansas with input from other states and supplemented with VISTAS-specific data. Georgia determined based on that spreadsheet that a cost of \$6,424/ton of SO₂ removed, as determined for the 2019 cost year, would exceed the 98th percentile of all costs incurred by sources to control emission in the first planning period. On this basis, Georgia determined that a cost of \$6,424/ton of SO₂ removed was not a reasonable cost of control. EPA reaffirms that Georgia’s conclusions were reasonable under the CAA and RHR.

While the Commenters state that a switch to PRB coal would result in 46 percent lower NO_x emission rates and taking the NO_x reductions into account would result in a cost-effectiveness of \$4,749/ton for SO₂ and NO_x, combined, because the facility did not exceed Georgia’s Aol/PSAT threshold for NO_x, Georgia did not conduct a control analysis for NO_x due to its

determination that SO₂ is the dominant pollutant in this planning period for Class I areas impacted by Georgia sources. For the reasons discussed earlier in Response 3, EPA has concluded that Georgia’s approach is reasonable. As set forth in that response, PSAT source apportionment modeling clearly demonstrates that contributions from Georgia’s point source NO_x emissions are significantly below Georgia’s source selection thresholds. As stated in Tables 7–16, 7–17, and 7–18 of the Haze Plan, the modeled visibility impacts on a pollutant-by-pollutant basis for Plant Bowen were as follows: 2.13 percent SO₂ and 0.07 percent NO_x for Cohutta; 2.77 percent for SO₂ and 0.01 percent for NO_x for Okefenokee; and 2.35 percent for SO₂ and 0.14 percent for NO_x for Wolf Island, which results in SO₂ visibility impacts approximately 17 times greater than NO_x visibility impacts at each of the Georgia Class I areas. The nitrate impacts from this facility are far below Georgia’s source selection thresholds. As EPA has consistently stated, “When selecting sources for analysis of control measures, a state may focus on the PM species that dominate visibility impairment at the Class I areas affected by emissions from the state and then select only sources with emissions of those dominant pollutants and their precursors.” 2019 Guidance, at p. 11. Additional rationale can be found in the Response 3, which discusses the dominant nature of SO₂ emissions in Georgia on visibility impairment at Class I areas compared to NO_x emissions.

Comment 10: The Commenters assert that EPA must require Georgia to consider year-round operation of the Selective Catalytic Reduction (SCR) systems at each of Plant Bowen’s emissions units within the FFA. They state that ignoring NO_x pollution and controls and EPA’s proposal to approve Georgia’s decision are not supported by the record. Instead, they argue EPA must require Georgia to evaluate options to reduce NO_x emissions at Plant Bowen. The Commenters argue that although Plant Bowen is equipped with low NO_x burners, separated overfire air, and SCR, Plant Bowen operates the SCR optimally only during ozone season, that they “severely underperform,” and that year-round operation of SCR could cut NO_x emissions in half. The Commenters therefore state that EPA must require Georgia to evaluate readily implementable NO_x controls, such as year-round SCR systems operation on a 30-boiler operating day average NO_x

Commission. This is not the same as the rate of return that Georgia Power is entitled to. The rate of return that Georgia Power is entitled to is identified in the same rate case cited to in support of Table A1.2. That rate of return (referred to by the Georgia Public Service Commission as “return on equity”) is set forth in the Georgia Public Service Commission’s December 31, 2019, Short Order Adopting Settlement Agreement as Modified and ranges from 9.5 percent to 12.0 percent. This order is available at <https://psc.ga.gov/search/facts-document/?documentId=179339>.

emission limit of between 0.05 lb/MMBtu and 0.07 lb/MMBtu.

Response 10: EPA finds the Commenters' assertions that EPA must require Georgia to analyze year-round operation of the SCR systems at Plant Bowen's Units 1–4 unfounded because, as discussed in Response 3 and in the NPRM, EPA agrees with Georgia's decision to focus on SO₂ controls in this planning period given, among other things, IMPROVE monitoring data from the 2014–2018 and 2015–2019 five-year periods showing that ammonium sulfate is the dominant visibility impairing pollutant contributing to regional haze at the Class I areas impacted by Plant Bowen. As also discussed in Response 9, the modeled visibility impacts on a pollutant-by-pollutant basis for Plant Bowen show that modeled visibility impacts from SO₂ are 17 times higher compared to modeled visibility impacts from NO_x in each of the Class I areas in Georgia. Based on these modeled visibility impacts, Plant Bowen did not meet Georgia's source selection threshold for NO_x due to low NO_x impacts. Therefore, EPA finds that Georgia appropriately focused on evaluating SO₂ emissions controls only for Plant Bowen for this planning period.

Comment 11: The Commenters contend that EPA cannot approve the incorporation of Plant Bowen's Permit No. 4911–015–0011–V–04–3 (2023 Permit Amendment) into Georgia's SIP due to an unlawful startup, shutdown, and malfunction (SSM) exemption and emergency affirmative defense provisions in Plant Bowen's 2019 title V renewal permit 4911–015–0011–V–04–0 (2019 title V Permit) that could apply to the SO₂ regional haze SO₂ emission limit. The Commenters state the "Excess Emission" permit condition (*i.e.*, Condition 8.14.4 of the 2019 title V permit) could allow Plant Bowen to exceed its regional haze SO₂ limit contained in the 2023 Permit Amendment during SSM events. Additionally, the Commenters argue that Plant Bowen's "emergency" affirmative defense provision (*i.e.*, condition 8.13.2 of the 2019 title V permit) would allow Plant Bowen to argue an affirmative defense in any enforcement action brought for an alleged violation of the facility's SO₂ regional haze limit contained in the 2023 permit amendment. Thus, the Commenters assert that EPA's proposal to incorporate Plant Bowen's 2023 Permit Amendment into Georgia's SIP violates the CAA and the RHR.

Response 11: EPA disagrees with the Commenters. The Agency is incorporating the 2023 Permit

Amendment into the Georgia SIP and is not incorporating into the SIP any portion of the 2019 title V Permit. Therefore, the provisions of the 2023 Permit Amendment will be federally enforceable via the SIP as specifically provided for in that permit, which contains work practice requirements that apply during startup and shutdown. *See* 2023 Permit Amendment, Condition 3.3.8. Additionally, Condition 8.14.4 of Plant Bowen's 2019 title V Permit, referenced by the Commenters, is substantively the same as Georgia Rule 391–3–1-.02(2)(a)7 of the State's federally approved SIP. Because this rule is already in Georgia's SIP and further because EPA is not adopting Condition 8.14.4 into the SIP in this action, the Commenters' concerns are without merit. Likewise, Condition 8.13.2 of Plant Bowen's 2019 title V Permit, also referenced by the Commenters, is derived from Georgia Rule 391–3–1-.03(10)(d)7, which is a rule that is currently approved into Georgia's title V rules. Specifically, that rule states that "40 CFR part 70.6(g) is hereby incorporated and adopted by reference." On July 21, 2023, EPA removed 40 CFR 70.6(g) from the Code of Federal Regulations as "inconsistent with the EPA's interpretation of the enforcement structure of the Clean Air Act." *Id.* In accordance with the EPA's July 21, 2023, rulemaking, Georgia is likewise required to remove this provision from the State's title V rules. *See* 88 FR 47029. Upon removal of this rule from Georgia's title V program, Georgia would then be obligated to remove conditions such as Plant Bowen's Condition 8.13.2 from the facility's title V permit. EPA also disagrees that the Condition 8.13.2 would allow Plant Bowen to argue an affirmative defense in any enforcement action brought for an alleged violation of the facility's SO₂ regional haze limit contained in the 2023 permit amendment. Rather, an affirmative defense may only be argued for *emergencies* that meet the specific criteria of paragraphs a. through d. of Condition 8.13.2.

Comment 12: The Commenters assert that EPA cannot approve Georgia's FFA for Brunswick Cellulose and must require the facility to install cost-effective controls. They state that due to the facility's "significant" NO_x emissions, EPA must require Georgia to conduct an FFA for NO_x controls. In addition, the Commenters argue that Georgia's FFA, as it pertains to SO₂ controls, is "riddled with errors that EPA neither acknowledges nor addresses."

The Commenters state that NPS found that Georgia did not follow EPA's CCM in its analyses of wet scrubber and dry sorbent injection (DSI) controls for the No. 4 Power Boiler and No. 5 and 6 Recovery Furnaces. The Commenters thus contend that to meet its regional haze requirements, as well as the requirement that EPA must act consistently across SIP actions, EPA must determine that these deviations from EPA's CCM in its analyses of controls for Brunswick Cellulose violate the CAA and RHR.

The Commenters also assert that Georgia inappropriately rejected a wet scrubber for the No. 4 Power Boiler. They contend that "based even on Georgia's flawed analyses for Brunswick, a wet scrubber would likely reduce SO₂ emissions from the No. 4 Power Boiler by 141 tpy at a cost-effectiveness of \$10,330/ton of pollution reduced," which they argue is within the range of cost thresholds adopted by other states.

Response 12: Regarding the Commenters' assertion that EPA cannot approve GA EPD's FFA for Brunswick Cellulose and must require the facility to conduct NO_x control analyses given its NO_x emissions and to install cost-effective controls for NO_x, *see* Response 2 and Response 3. In the Haze Plan, GA EPD evaluated Brunswick Cellulose's contributions to visibility impairment at Class I areas and concluded that SO₂ contributions to visibility impairment from this facility exceeded State's AoI and PSAT screening thresholds and that NO_x emissions did not exceed the State's screening thresholds. Therefore, Brunswick Cellulose was selected for an SO₂ FFA, but not for a NO_x FFA. As discussed in Response 2 and Response 3, Georgia's approach was reasonable and complies with the RHR.

Regarding the Commenters' arguments that GA EPD's FFA of SO₂ controls for Brunswick Cellulose is "riddled with errors" and not properly substantiated, the Commenters do not discuss any errors with any specificity. Instead, the Commenters cite to the NPS's June 22, 2022, letter to GA EPD,⁵⁶ in which NPS noted that "the indirect operating costs do not reflect the most recent CCM wet scrubber chapter methods." The Commenters omit, however, that NPS also "agree[d] with several revisions made to the cost analyses." While the Commenters focus on several concerns raised by NPS regarding Georgia's rationale, the Commenters omit that in spite of these concerns, NPS agreed with Georgia's

⁵⁶ Haze Plan, Appendix H–1b, NPS Regional Haze SIP feedback for Georgia EPD (June 22, 2022).

ultimate conclusion that “[g]iven that the fuel switch is estimated to result in a cost savings (even at higher natural gas prices), the NPS reviewers concur that the incremental costs of selecting a scrubber system in lieu of a fuel switch are not justified from a cost standpoint.”

Based on EPA’s evaluation of Brunswick Cellulose’s cost analyses, EPA noted several discrepancies, including the addition of property tax values to the total indirect operating costs. As alluded to in the NPS letter cited by the Commenters, these discrepancies were addressed prior to Georgia’s final SIP submittal. The State’s final SIP submittal to EPA included a revised cost calculation which was nearly identical to EPA’s calculations. In the Haze Plan, the State’s cost per ton calculation was marginally lower than EPA’s calculation due to EPA’s use of a lower 3.25 percent bank prime interest rate, as recommended by the CCM. Although EPA recognizes that GA EPD’s cost calculations produced slightly lower values compared to EPA’s own evaluation in accordance with the CCM, the differences in the total cost per ton of SO₂ removed would not have changed the outcome of the FFA. In Appendix G–3 of the Haze Plan, GA EPD included documentation and explained the assumptions that the State used in the Brunswick Cellulose FFA, including the use of the current bank prime rate, a 30-year equipment life, and control efficiency assumptions used in the scrubber and DSI cost analyses. EPA thus does not agree with the Commenters that the FFA was not properly substantiated.

The Commenters also argue that Georgia inappropriately rejected a cost-effective control for the No. 4 Power Boiler (\$10,330/ton of SO₂ reduced for the installation of a wet scrubber), considering the cost-effectiveness is within the range of cost thresholds adopted by other states for the second planning period. Commenters raised a very similar argument regarding Plant Bowen, and for the same reasons that EPA disagreed with the Commenters’ position in Response 9 (regarding Plant Bowen), EPA disagrees here as well. Furthermore, the \$10,330/ton value exceeds the highest state cost threshold identified by the Commenters (\$10,000/ton for Colorado).

As discussed in Response 5, Georgia relied on a spreadsheet of first planning period costs developed by Arkansas with input from other states and supplemented with VISTAS-specific data. Georgia determined based on that spreadsheet that a cost of \$10,330/ton of SO₂ removed would exceed the 98th percentile of all costs incurred by

sources to control emission in the first planning period. On this basis, Georgia determined that a cost of \$10,330/ton of SO₂ removed for the installation of a wet scrubber at Brunswick Cellulose was not a reasonable cost of control. Given that the State is not required to set a bright-line cost threshold by the RHR, the discretion afforded to the state to determine whether costs are reasonable, and the even-handed and consistent methodology applied by Georgia to determine whether control costs were reasonable for this planning period, EPA reaffirms that Georgia’s conclusions were reasonable under the CAA and RHR.

Comment 13: The Commenters assert that, at a minimum, Brunswick Cellulose’s existing measures for the No. 5 and 6 Recovery Furnaces are necessary for reasonable progress. The Commenters note that EPA has explained that a state can demonstrate that a source will continue implementing its existing measures such that they are not necessary for reasonable progress “based on data and information on: (1) The source’s past implementation of its existing measures and its historical emission rate, (2) the source’s projected emissions and emission rate, and (3) any enforceable emissions limits or other requirements related to the source’s existing measures.” The Commenters state that the expected emission ranges provided by Georgia for these furnaces are “very wide, with the top of the range being more than double the bottom.” Additionally, the Commenters state that nothing in the SIP revision demonstrates that emissions will remain the same at these units. The Commenters state that EPA explains that Georgia submitted a supplement to its SIP revision providing that the No. 5 Recovery Furnace’s emissions fluctuated from 2016 to 2020 and argued that “the emission rate for the unit is within a consistent range limited by the Permit.” The Commenters therefore contend that EPA’s own justification for its determination underscores that existing permit limits for the facility are necessary to make reasonable progress.

Response 13: EPA disagrees with the Commenters. EPA requested supplemental information from Georgia regarding emissions for the No. 5 Recovery furnace, which has higher emissions than the No. 6 Recovery Furnace. Based on 2016 to 2020 emissions data provided by Georgia to EPA that was cited in the NPRM and included in the docket, emissions at the No. 5 Recovery Furnace ranged from 0.125 to 0.152 tons SO₂/1,000 gallons of No. 6 fuel oil burned, demonstrating a

reasonably consistent SO₂ emission rate during this time period. The increase in total SO₂ emissions discussed by the Commenters is attributable to increased fuel oil burned in the unit and is not attributable to an inconsistent emission rate. Based on 2016 to 2020 emissions data, SO₂ emissions decreased from 21.7 tpy in 2016 to 7.8 tpy in 2020. Because emissions remain consistent at the No. 5 Recovery Furnace, EPA is not requiring Georgia to adopt existing measures for this emission unit into the SIP. This position is also consistent with EPA’s 2021 Clarifications Memo. See 2021 Clarifications Memo, at p. 9. Regarding the No. 6 Recovery Furnace, EPA likewise requested supplemental information from Georgia. This supplemental information is in the docket.⁵⁷ While there is somewhat more variability in the emissions rate for this unit, the unit’s SO₂ emissions are extremely low, and therefore existing measures at this unit are not necessary for reasonable progress.

Comment 14: The Commenters assert that the Brunswick Cellulose permit that EPA proposes to incorporate into Georgia’s SIP does not include practically enforceable emission limits. More specifically, they argue the Brunswick Cellulose permit does not contain sufficient measures to ensure the facility complies with the 15 tpy SO₂ limit for the No. 4 Power Boiler and the No. 6 fuel oil burning condition during adverse wood/bark conditions. The Commenters contend that the permit states that Brunswick Cellulose “shall use emission factors” but does not specify what emission factors Brunswick Cellulose must use.⁵⁸ The Commenters note that in an April 24, 2024, email from GA EPD to EPA, GA EPD stated that Brunswick Cellulose will use an AP–42 emission factor of 157 S lb/Mgal (where S is the fuel sulfur content by weight as a percentage per million gallons of fuel).⁵⁹ However, the Commenters contend that AP–42 factors

⁵⁷ See October 29, 2024, GA EPD email and attached file transmitting supplemental emissions information for the Brunswick Cellulose No. 6 Recovery Furnace.

⁵⁸ Ga. Dept Nat. Res., Air Quality—Part 70 Operating Permit, Brunswick Cellulose LLC, Permit No. 2631–127–0003–V–07–3 at 3 (Oct. 25, 2023), Document No. EPA–R04–OAR–2023–0220–0011 (providing that Condition 6.2.52 “demonstrate[s] compliance with Condition 3.2.25”) [hereinafter “Brunswick Permit”].

⁵⁹ Email from James Boylan, Chief, Air Prot. Branch, Ga. Env’t Prot. Div., to Estelle Bae, Air Permits Sec., Air Planning and Implementation Branch, Air and Radiation Div., Env’t Prot. Agency Region 4 (Apr. 15, 2024), Document No. EPA–R04–OAR–2023–0220–0109; Ga. Env’t Prot. Div., Response to EPA Regional Haze Questions at 1 (April 14, 2024), Document No. EPA–R04–OAR–2023–0220–0110.

do not reliably predict emissions and therefore are insufficient to determine compliance. The Commenters note that EPA has cautioned that the AP-42 factors “are not likely to be accurate” and “[u]se of these factors as source-specific permit limits . . . is not recommended.”⁶⁰ The Commenters further argue that since neither EPA nor Georgia can rely on these AP-42 factors to establish or demonstrate compliance, the 15 tpy SO₂ emission limit is not practically enforceable and EPA’s proposal to incorporate it into the SIP violates the CAA and the RHR.

Response 14: EPA disagrees with the Commenters. GA EPD’s April 24, 2024, clarification email stated that the facility used the 157 S lb/Mgal emission factor contained within Table 1.3–1 of AP-42 in its title V permit application.⁶¹ The use of interpretive letters to clarify ambiguity or perceived ambiguity in the provisions in a SIP submission is a permissible, and sometimes necessary, approach under the CAA.⁶² So long as the interpretive letters and EPA’s reliance on them is properly explained and documented, regulated entities, regulators, and the public can readily ascertain the existence of interpretive letters relied upon in EPA’s approval that would be useful to resolve any perceived ambiguity. By virtue of being part of the stated basis for EPA’s approval of that provision in a SIP submission, interpretive letters necessarily establish the correct interpretation of any arguably ambiguous SIP provision. In other words, the rulemaking record should reflect the shared state and EPA understanding of the meaning of a provision at issue at the time of the approval, which can then be referenced should any question about the provision arise in a future enforcement action. In

⁶⁰ EPA, “Enforcement Alert: Reminder About Inappropriate Use of AP-42 Emission Factors,” Publication No. EPA 325–N–20–001 (Nov. 2020), available at: <https://www.epa.gov/sites/default/files/2021-01/documents/ap42-enforcementalert.pdf>.

⁶¹ Permit No. 2631–127–0003–V–07–3, Condition 6.2.52, requires the source to use the emission factors and the records required by Condition 6.2.51 to ensure compliance with the 15 tpy SO₂ emission limit specified in Condition 3.2.25 for the No. 4 Power Boiler. On April 15, 2024, GA EPD supplemented its August 11, 2022, Haze Plan by providing clarification on the specific emission factor that the source will use for calculating compliance with Condition 3.2.25. This April 15, 2024, email containing the supplemental clarification is included in the docket for this action.

⁶² See, e.g., Discussion of interpretive letters in “State Implementation Plans: Response to Petition for Rulemaking; Restatement and Update of EPA’s SSM Policy Applicable to SIPs; Findings of Substantial Inadequacy; and SIP Calls To Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown and Malfunction,” 80 FR 33840, 33884–89 (June 12, 2015).

this action, EPA is approving the Brunswick Cellulose emission limit and incorporating it into the SIP based on Georgia’s interpretation that the phrase “shall use emissions factors” in Condition 6.2.52 means that the source shall use an emissions factor of 157 S lb/Mgal to calculate SO₂ emissions from the unit for comparison with the 15 tpy emission limit.⁶³ EPA will include an entry for this Brunswick Cellulose permit in the Georgia source-specific SIP table at 40 CFR 52.570(d) with text in the explanation column stating that “shall use emissions factors” refers to the use of a 157 S lb/Mgal, from AP-42, Chapter 1, Section 1.3: Fuel Oil Combustion. For these reasons, EPA views the use of this emissions factor as a federally-enforceable requirement which renders the emission limit practically enforceable.

As for the Commenters’ argument regarding the use of AP-42 as the basis for this emissions factor, the Commenters seem to suggest that AP-42 emission factors can never be used in permitting. While AP-42 emission factors should be used with caution because source-specific data is always more reliable than industry-wide averages compiled in AP-42, EPA has consistently stated that “AP-42 emission factors may be used to demonstrate compliance with emission limits in certain circumstances” and that “[w]hether and how a permit must account for uncertainty in AP-42 emission factors (including the AP-42 emission factor at issue here) is a fact-specific decision, as with essentially all other decisions concerning compliance assurance.”⁶⁴

The Commenters do not raise any specific facts to suggest that the use of AP-42 emission factors here is inappropriate. Instead, they simply assert that EPA has “cautioned” against the use of such emission factors in permitting, and the Commenters then make a blanket statement that therefore such emission factors cannot be used in permitting at all. As applied here, the

⁶³ On October 16, 2024, GA EPD provided a letter to EPA with an interpretation of the phrase “The Permittee shall use emissions factors” in Condition 6.2.52. GA EPD stated in this letter that this phrase in Permit Condition 6.2.52 means that Brunswick Cellulose will use the same AP-42 emission factor as was used to calculate emissions for their permit application. The emission factor used by Brunswick Cellulose for No. 6 Fuel Oil in No. 4 Power Boiler (U700) is 157 S lb/Mgal, where S is the fuel content as a percentage. This emission factor was taken from Table 1.3–1 of AP-42. This October 16, 2024, letter containing the supplemental clarification of the emission factor is included in the docket for this rulemaking action.

⁶⁴ Intercontinental Terminals Company, LLC Pasadena Terminal, Title V Order No. VI–2023–13, at p. 15.

Commenters contend that the use of an AP-42 emission factor rendered the 15 tpy emission limit practically unenforceable and therefore unlawful under the CAA and RHR.

EPA disagrees. The AP-42 emission factor used by GA EPD, which is located in Table 1.3–1 of AP-42, is rated “A” by EPA, which is the best rating available and means that the test quality data used by EPA to develop this emission factor was “performed by a sound methodology and are reported in enough detail for adequate validation.”⁶⁵ An “A” rating also means that the “Factor is developed from A- and B-rated source test data taken from many randomly chosen facilities in the industry population. The source category population is sufficiently specific to minimize variability.”⁶⁶ The 157 S lb/Mgal AP-42 emission factor, is a commonly used and appropriate representation of the SO₂ emitted from a fuel-burning unit, as SO₂ emissions are almost entirely dependent on the sulfur content of the fuel, conservatively assuming that 95 percent of the fuel sulfur is converted to SO₂.⁶⁷ Scenarios where EPA has raised concerns about the use of AP-42 emission factors generally involve scenarios such as synthetic minor permitting limits used to avoid major source permitting where the synthetic minor limit is near the major source threshold. For example, EPA is aware of many scenarios where permitting agencies have imposed emission limits of 249 tpy to avoid the 250 tpy potential to emit major source PSD threshold in CAA 169(1). In such instances, precision in any emission factors used to develop the emission limit and to ensure compliance with the limit are essential because small errors in such emission factor relative to the source’s actual emission could result in a facility exceeding pertinent major source thresholds. As noted by Commenters, EPA issued a compliance alert to this effect in November of 2020.⁶⁸ The circumstances discussed in that compliance alert, however, are not present here because under the regional haze program, there is not a specific numeric threshold, such as a PSD major source threshold, that is applicable. Under the specific factual circumstances

⁶⁵ AP-42, Introduction, p. 9.

⁶⁶ *Id.*

⁶⁷ See AP 42, Fifth Edition, Volume I Chapter 1: External Combustion Sources, 1.3: Fuel Oil Combustion, available at: https://www.epa.gov/sites/default/files/2020-09/documents/1.3_fuel_oil_combustion.pdf.

⁶⁸ See EPA Reminder About Inappropriate Use of AP-42 Emission Factors, available at: <https://epa.gov/sites/default/files/2021-01/documents/ap42-enforcementalert.pdf>.

present here, EPA finds that GA EPD's use of this AP-42 emission factor was appropriate and that the Commenters' concerns that deviations in Brunswick Cellulose's actual emissions from those assumed in the emission factor are without merit.

Comment 15: The Commenters assert that the most recently renewed Brunswick Cellulose title V permit (April 2023) is also affected by the same SSM exemption and affirmative defense provisions that were detailed above in the 2019 Plant Bowen title V permit. The Commenters contend that the Brunswick Cellulose SSM exemption also states that the exemption does not apply to "sources" subject to New Source Performance Standards requirements, and so, it is not clear whether that provision applies to Brunswick Cellulose's 15 tpy limit for the No. 4 Power Boiler. However, the Commenters state if that provision applies to the 15 tpy limit, it renders the 15 tpy limit unlawful and not practically enforceable for the same reasons raised by the Commenters regarding the identical permit conditions for Plant Bowen. The Commenters thus assert that EPA's proposal to incorporate the 15 tpy limit into Georgia's SIP violates the CAA and RHR.

Response 15: EPA disagrees with the Commenters for the same reasons stated in Response 11.

Comment 16: The Commenters assert that the Brunswick Cellulose title V permit that EPA would be adopting into Georgia's SIP does not contain necessary reporting requirements, but instead only requires the facility to maintain documents "kept as part of the record" reflecting its fuel use and emission calculations. The Commenters note that the permit makes reference to a requirement that Brunswick Cellulose report its excess emissions, exceedances, or excursions in accordance with "the report required in Condition 6.1.4" of the permit. However, the Commenters state that the permit as included in EPA's docket does not contain Condition 6.1.4., and thus, the Commenters argue that the provisions EPA proposes to incorporate into the SIP do not meet the requirements of the CAA or the RHR.

Response 16: Permit condition 6.1.7, as incorporated, requires Brunswick Cellulose to report excess emissions, exceedances, or excursions from the 15 tpy SO₂ emission limit and fuel burning limitations in accordance with permit condition 6.1.4. Permit condition 6.1.4 requires Brunswick Cellulose to submit a written report each quarter that contains any excess emissions,

exceedances, or excursions, and any monitor malfunctions during each quarterly reporting period. If none of these occurred, Brunswick Cellulose must still submit a report stating that there were no excess emissions, exceedances, excursions, or monitor malfunctions during the quarterly reporting period. Condition 6.1.4. exists in a federally enforceable title V permit and is referenced in the reporting requirement in Condition 6.1.7 that is being approved into the SIP.

Comment 17: The Commenters assert that EPA shirks its duty to review Georgia's source-specific FFA for IP-Savannah. The control measure at IP-Savannah that Georgia determined is necessary to make reasonable progress is a requirement that the facility no longer burn coal at its No. 13 Power Boiler. The Commenters contend that EPA cannot approve Georgia's reliance on the cessation of coal burning at the No. 13 Power Boiler because it is not a new control and will not reduce IP-Savannah's emissions. The Commenters note that IP-Savannah ceased burning coal at the No. 13 Power Boiler in 2017, three years before the facility submitted its FFA to the State and five years before Georgia finalized its SIP revision, and contend that the measure is therefore neither "new" nor "additional." The Commenters state that EPA's conclusion that the control would achieve any emission reductions, let alone more reductions than other controls analyzed, is misleading at best. The Commenters contend that IP-Savannah's baseline emissions for its control analysis used 2018 and 2019 emissions and that because these years already accounted for the cessation of coal burning, EPA's assertion that this control measure would achieve additional reductions in SO₂ is "inappropriate double counting." Nonetheless, the Commenters agree with EPA and GA EPD that this measure should be adopted into Georgia's SIP, but the Commenters state that cessation of coal combustion at the No. 13 boiler should be classified as an existing measure.

Response 17: EPA disagrees with the Commenters' argument that IP-Savannah's cessation of burning coal at the No. 13 Power Boiler in 2017 is neither "new" nor "additional." Although IP-Savannah stopped burning coal voluntarily in 2017, IP-Savannah was still permitted to burn coal and the facility did not physically modify the No. 13 Power Boiler to remove the capability to burn coal. This restriction is a new control for regional haze purposes because incorporating it into Georgia's SIP will result in the permanent cessation of coal combustion at the No. 13 Power Boiler.

Without this incorporation into the SIP, the source could request a permit modification to begin combusting coal again, which would be inconsistent with the requirement to achieve reasonable progress under the CAA and RHR. The removal of coal as a fuel in the No. 13 Power Boiler will result in the permanent reduction of approximately 2,662 tpy of SO₂ emissions reductions per year (see column "SO₂ tpy Reductions" in Table 7-35 of the Haze Plan). EPA finds that the selected control option is necessary for reasonable progress for the second period and is therefore adopting this measure into the SIP. In response to the Commenters' assertion of the "inappropriate double counting" of SO₂ reductions, the characterization of whether these are "additional" reductions is irrelevant. The cessation of coal burning is simply a measure that EPA is adding to the SIP and is a part of the LTS.

Comment 18: Instead of the cessation of burning coal, the Commenters assert that EPA must require IP-Savannah to install cost-effective circulating dry scrubber (CDS) or DSI controls. The Commenters argue that Georgia's analysis of these controls for the No. 13 Power Boiler contain multiple errors and unsupported costs, which are detailed below.

First, the Commenters contend that the facility's 20-year "economic life" deviates from the CCM, where the remaining useful life for these controls is 30 years. Second, the Commenters contend that IP-Savannah provided only vague statements or justifications in support of its retrofit factor, that this retrofit factor was at the top of EPA's recommended range, and that Georgia should have used an average retrofit factor of one when considering CDS and DSI controls. The Commenters also similarly contend that the capacity factor of 59 percent for the No. 13 Power Boiler is unsupported in the FFA, and that Georgia and EPA should have not accepted this number without further documentation. The Commenters state that information in the facility-submitted FFA indicates that the actual capacity factor is very likely much higher at 76.4 percent. The Commenters state that Georgia did not require or provide any documentation to support (1) IP-Savannah's argument that it would have to expand its solid waste disposal site to accommodate CDS or DSI controls, or (2) the cost of expanding the waste disposal site. The Commenters contend that the facility's claimed costs for waste disposal are not reliable, as the facility escalated the costs for expanding its disposal site

from 2007 to 2021 dollars despite the fact that the CCM states that costs should not be escalated more than five years.

The Commenters also assert that beyond the above-described alleged cost analysis errors for CDS and DSI, Georgia accepted an unreasonably low 90 percent removal efficiency for CDS from the facility-submitted cost analysis. According to the Commenters, the CCM states that CDS systems can achieve at least 95 percent and possibly over 98 percent removal efficiency. They further contend that Georgia acknowledged in the SIP revision that CDS systems can achieve 98 percent control in its response to comments, but the State still stated, without any support or explanation, that “it supports IP-Savannah’s choice to use 90 percent as an appropriate efficiency factor.”

Separately, the Commenters assert that Georgia accepted the same waste disposal cost for both CDS and DSI even though IP-Savannah’s calculated waste rate for CDS was significantly lower than that for DSI. Therefore, they argue that Georgia should have used a lower waste disposal cost in its analysis for CDS. In total, the Commenters contend that each of these alleged errors resulted in artificially inflated control costs for CDS and DSI and, therefore, artificially inflated cost-effectiveness values. The Commenters state that, according to the Stamper report attached to the Commenters’ comments, by correcting some of the noted errors identified by the Commenters in Georgia’s analysis, CDS and DSI are cost-effective controls at \$3,790/ton and \$5,920/ton of SO₂ removed, respectively.

Related to these points, the Commenters assert that Georgia violated the RHR’s requirement that it adequately document and support the technical basis for its control determinations, and that EPA does not acknowledge or address any of the many errors in Georgia’s control analyses. They also contend that in response to comments, Georgia admits that “the costs associated with [CDS and DSI] were not looked at in depth due to [the removal of coal burning] being an obvious path forward.” The Commenters contend that EPA’s argument that Georgia followed a reasonable cost analysis method and followed the CCM is unsupported. The Commenters state that in proposed rulemaking on the Arizona regional haze SIP, EPA proposes to conclude the FFAs for numerous sources were unreasonable because the State based its control determinations on, among other things, inappropriate emission rates for the controls analyzed and

unsubstantiated deviations from the CCM. The Commenters therefore state that EPA must treat the errors in Georgia’s SIP revision consistently with how it has proposed to treat these same errors in Arizona’s SIP revision.⁶⁹

Response 18: EPA disagrees with the Commenters’ argument that the Agency must require Georgia to “correct” its cost analyses, or “correct” those analyses itself, and require the installation of either CDS or DSI on the No. 13 Power Boiler at IP-Savannah to make reasonable progress. Georgia’s selection of cessation of coal combustion as a control met the requirements of the RHR and was consistent with EPA’s recommended process to select controls discussed in the 2019 Guidance and the 2021 Clarifications Memo. Georgia was not required to select multiple controls for IP-Savannah’s No. 13 Power Boiler and applied its reasonable discretion to require IP-Savannah to implement the most cost-effective control. Moreover, even if assuming the Commenters’ technical arguments above regarding items such as retrofit factors, capacity factors, removal efficiency, and waste rate are accurate (EPA has not made a determination on those points), the cost of the other potential controls would still be positive, whereas cessation of coal combustion has a negative cost while still resulting in substantial permanent emission reductions. Because Georgia was not required to select multiple controls for the No. 13 Power Boiler and further because EPA agrees with Georgia’s selection of cessation of coal combustion as reasonable for this planning period, the Commenters’ comments regarding other potential control options are without merit.

EPA also disagrees with the Commenters’ argument that EPA did not evaluate the CDS and DSI in depth due to the removal of coal burning being an obvious path forward. EPA evaluated each assumption used in the cost analyses as part of the pre-hearing process and throughout the Haze Plan development process.

Comment 19: The Commenters further assert that even using Georgia’s cost analyses, following the cessation of burning coal, CDS (removing 3,674 tpy of SO₂ at a cost of \$5,564/ton) and DSI (removing 2,653 tpy of SO₂ at a cost of \$6,245/ton) to control emissions from the No. 13 Power Boiler are cost effective because “[t]hese costs are well within the range of costs that other states have determined are cost effective for the second planning period.” The

Commenters argue that EPA’s proposal to approve Georgia’s determination that these controls are not cost effective based on the State’s application of the Arkansas cost spreadsheet is arbitrary and capricious.

Response 19: Commenters raised a very similar argument regarding Plant Bowen, and for the same reasons stated in Response 9 (regarding Plant Bowen), EPA disagrees here as well. As discussed in Response 5 and as noted by the Commenters, Georgia relied on a spreadsheet of first planning period costs developed by Arkansas with input from other states and supplemented with VISTAS-specific data. Georgia determined based on that spreadsheet that costs of \$5,564/ton of SO₂ removed for CDS and \$6,245/ton of SO₂ removed for DSI would exceed the 98th percentile of all costs incurred by sources to control emission in the first planning period. On this basis, Georgia determined that these were not reasonable costs to control emissions for this planning period. Given that the State provided a detailed documentation and justification, and is not required to set a bright-line cost threshold by the RHR, the discretion afforded to the State to determine whether costs are reasonable, the consistent methodology applied by Georgia to determine whether control costs were reasonable for this planning period, and the flexibility discussed in Response 9, EPA reaffirms that Georgia’s conclusions were reasonable under the CAA and RHR.

Georgia selected the most cost-effective control option for IP-Savannah, which is the permanent cessation of coal combustion at the No. 13 Power Boiler. The selection of this control is consistent with EPA’s recommended process to select controls as discussed in the 2019 Guidance and the 2021 Clarifications Memo. The selection of the most cost-effective control is also consistent with Georgia’s approach to selection of controls. In short, Georgia was not required to select multiple controls for IP-Savannah’s No. 13 Power Boiler and applied its reasonable discretion to require IP-Savannah to implement the most cost-effective control. This approach is consistent with the CAA’s and RHR’s requirements that the state selects emission controls based upon four factors, including cost. See CAA section 169A(g)(1); 40 CFR 51.308(f)(2)(i).

Comment 20: The Commenters also assert that Georgia and EPA failed to consider other available controls to reduce IP-Savannah’s haze-forming emissions, namely packed bed scrubbers. The Commenters contend

⁶⁹ See CAA 301(a)(2) and 40 CFR 56.5(a).

that packed bed scrubbers are a common SO₂ control option for many industrial sources, including paperboard mills like IP-Savannah, and that these scrubbers are demonstrated to achieve up to 99.99 percent control efficiency. The Commenters note that the CCM includes a module for assessing packed bed scrubber controls, and the Commenters conclude that while the record does not contain sufficient information to provide a cost analysis for these packed bed scrubbers, examples provided in the CCM indicate that packed bed scrubbers are likely a highly cost-effective control option for IP-Savannah.

Response 20: EPA disagrees with the Commenters that GA EPD did not consider packed bed scrubbers in IP-Savannah's FFA. Packed tower scrubbers (also known as packed bed or packed column scrubbers) are a type of wet scrubber, and wet scrubbers were explicitly considered in IP-Savannah's FFA and were rejected by GA EPD as not feasible due to the additional offsets to the facility's water use and freshwater demand. See Haze Plan, Appendix G–2b, at p. 2–7 and 2–8. Thus, for the reasons stated in Responses 17 and 18, EPA disagrees.

Packed tower scrubbers can achieve high removal efficiencies, handle high liquid rates, and have relatively lower water consumption requirements than other types of gas absorbers. However, packed towers may also have high system pressure drops, high clogging and fouling potential, and extensive maintenance costs due to the presence of packing materials. Installation, operation, and wastewater disposal costs may also be higher for packed bed scrubbers than for other absorbers.⁷⁰ In addition to pump and fan power requirements and solvent costs, packed towers have operating costs associated with replacing damaged packing.

Wet scrubbers such as packed tower scrubbers have water use and water discharge requirements that can make these controls not feasible in certain situations. According to GA EPD, treated wastewater from IP-Savannah is discharged to the Savannah River. IP-Savannah's 2019 National Pollutant Discharge Permit currently limits this facility's wastewater discharge, and the facility has since committed to meet biologically based Ultimate Oxygen Demand limits which represent an approximately 85 percent reduction from its current permit limits. The facility is also limited on how much

groundwater can be withdrawn, and its water withdrawal permit limits will be lower starting in 2025, which will cause any projects requiring additional water use to be offset by water-savings projects.⁷¹ Thus, a wet scrubber, which would represent 10 percent of the facility's freshwater demand, was deemed not feasible by GA EPD. EPA agrees with GA EPD that adding a packed tower scrubber to control SO₂ emissions from IP-Savannah would not be reasonable based upon Georgia's technical determinations that this control is not feasible. Because this control is not feasible, neither GA EPD nor EPA performed a cost analysis for this control option.

EPA disagrees that Georgia did not consider other available control options for reducing SO₂. Georgia also evaluated the feasibility of a dry scrubber for the No. 13 Power Boiler. While a dry scrubber does not have the same additional needs for water as a wet scrubber, EPA agrees with Georgia's determination that a dry scrubber was considered not technically feasible due to costs from the additional solid waste and wastewater generated and the expansion of the existing mill-owned landfill.

Comment 21: The Commenters argue that IP-Savannah is a significant source of NO_x pollution. The commenters contend that EPA must require Georgia to conduct an FFA for NO_x controls on the facility's emission units to ensure that the State requires a reasonable range of controls to make progress.

Response 21: For the reasons stated in Response 2 and Response 3, EPA disagrees with the Commenters. In the Haze Plan, GA EPD evaluated IP-Savannah's contributions to visibility impairment at Class I areas and concluded that SO₂ contributions to visibility impairment from this facility exceeded State's AoI and PSAT screening thresholds and that NO_x contributions did not exceed the State's screening thresholds. Therefore, IP-Savannah was selected for an SO₂ FFA but not for a NO_x FFA. As discussed in Response 3, Georgia's approach was reasonable and complies with the RHR.

Comment 22: The Commenters assert that EPA ignores that the IP-Savannah title V permit that Georgia proposes to incorporate into its SIP does not include necessary reporting requirements. The Commenters argue that IP-Savannah's permit, as reproduced in EPA's docket, only includes provisions requiring the facility to "measure and record" information reflecting fuel use for the

No. 13 Power Boiler. The permit makes reference to a requirement that IP-Savannah report its excess emissions, exceedances, or excursions in accordance with "the report required in Condition 6.1.4" of the permit. However, the Commenters state that the permit does not contain Condition 6.1.4, and therefore the provisions EPA proposes to incorporate into the SIP do not include necessary reporting provisions and do not meet the requirements of the CAA or RHR.

Response 22: Permit condition 6.1.7, as incorporated, requires IP-Savannah to report excess emissions, exceedances, or excursions in accordance with permit condition 6.1.4, as it relates to the burning of coal in the No. 13 Power Boiler. Permit condition 6.1.4 requires IP-Savannah to submit a written report each quarter that contains any excess emissions, exceedances, or excursions, and any monitor malfunctions during each quarterly reporting period. If none of these occurred, IP-Savannah must still submit a report stating that there were no excess emissions, exceedances, excursions, or monitor malfunctions during the quarterly reporting period. Condition 6.1.4 exists in a federally enforceable title V permit and is also referenced in the portions of the permit being approved into the SIP.

Comment 23: The Commenters assert that EPA ignores that Georgia's SIP does not address measures necessary to prevent future impairment as is required at Class I areas by the CAA and RHR. The Commenters contend that EPA has historically relied on new source permitting programs, "like the [PSD] and [NSR] programs," to address the CAA's prevention of future impairment mandate, but these programs "have changed dramatically over the decades." The Commenters state that current PSD rules, as well as the nonattainment NSR rules, now exempt many modifications at existing major sources that were previously subject to PSD review. As a result, the Commenters state that the PSD and NSR rules do not provide as comprehensive Class I area visibility protections as they previously did. The Commenters thus contend that it is imperative that Georgia's LTS include measures to prevent future visibility impairment from new sources, as well as new modifications at existing sources of haze pollution.

More specifically, the Commenters assert that Georgia does not discuss anywhere in its SIP revision (1) the programs it has in place to address any potential future increases in emissions or (2) any pending air permit applications for sources that may contribute to future impairment at Class

⁷⁰ See https://www.epa.gov/sites/default/files/2021-05/documents/wet_and_dry_scrubbers_section_5_chapter_1_control_cost_manual_7th_edition.pdf.

⁷¹ See Section 7.8.1. International Paper—Savannah Mill in the 2022 Plan.

I areas in Georgia or other states. As an example, the Commenters state that Georgia is currently reviewing a permit application and draft permit from Twin Pines Minerals which proposes to locate a mine just three miles from Okefenokee. Although Twin Pines Minerals' permit application indicates that the mine's emissions would be relatively low, the Commenters state that the application is missing information on emission sources and potential emission levels. As a result, the Commenters state that it is nearly impossible for the public to determine exactly what kind of impact the proposed mine may have on air quality at Okefenokee. The Commenters state that the SIP revision does not address this facility, or any other proposed new sources or modifications. They assert that this underscores the need for the State to address measures to prevent future impairment to ensure that it is meeting the CAA's natural visibility goal. Furthermore, they state that nowhere in EPA's proposed approval does the Agency acknowledge or address the fact that Georgia's SIP revision entirely omits any discussion of measures to prevent future impairment. Finally, they contend that EPA's proposal to approve Georgia's SIP is therefore arbitrary and capricious, in violation of the CAA and RHR.

Response 23: Contrary to the Commenters' assertions, there is no requirement in the CAA or for states' second planning period regional haze plans to assess and/or adopt emission reduction measures into the SIP for hypothetical new emissions sources that do not yet exist (*e.g.*, those which have not yet been constructed and/or are not yet in operation) to prevent future visibility impairment at Class I areas. Nor do the Commenters cite to legal authority suggesting that the CAA or RHR require this. Instead, the Commenters cite to CAA section 169A(a)(1); 40 CFR 51.300(a), and 40 CFR 51.308(f)(2)(iv)(B).

None of these statutes and regulations support the Commenters' assertions. CAA section 169A(a)(1) states the "national goal" underlying the regional haze program "the prevention of any future, and the remedying of any existing, impairment of visibility in mandatory class I Federal areas which impairment results from manmade air pollution." In support of this goal, Congress required EPA to "promulgate regulations to assure (A) reasonable progress toward meeting the national goal specified in paragraph (1), and (B) compliance with the requirements of this section." EPA has done so by promulgating the RHR, which the

Commenters also cite to. 40 CFR 51.300(a), cited by the Commenters, is entitled "Purpose and applicability" and restates the national goal from CAA section 169A(a)(1). This provision, while providing important context to the RHR, contains no independent requirements that states must meet and therefore does not support the Commenters' position.

The remaining citation to the RHR provided by the Commenters, 40 CFR 51.308(f)(2)(iv)(B), similarly does not support the Commenters' position. That provision states in full as follows: "The State must consider the following additional factors in developing its long-term strategy: Measures to mitigate the impacts of construction activities." Contrary to the Commenters' assertions, Georgia plainly addressed this requirement in its Haze Plan. *See* Haze Plan, at p. 221 (noting that "Measures to mitigate the impacts of construction activities" are addressed in Section 7.9.2 of the Haze Plan); *see also* Haze Plan Section 7.9.2 (discussing "Dust and Fine Soil from Construction Activities").

At bottom, the RHR addresses "the prevention of any future" visibility impairment by ensuring that reasonable progress measures are adopted into states' SIPs. In this way, the RHR renders such measures permanent, which necessarily prevents future visibility impairment from those emission sources. Because neither the CAA nor RHR requires further measures to address future construction, the Commenters' comments regarding the Twin Pines Minerals permit are acknowledged, but are not relevant.

Comment 24: The Commenters argue that EPA's proposal to approve Georgia's RPGs violate the CAA and RHR. The Commenters maintain that in EPA's SIP planning sequence, states first identify their LTS controls, which is followed by the development of RPGs. However, the Commenters contend that EPA fails to acknowledge that Georgia's established RPGs for its three in-state Class I areas are based on VISTAS modeling results which were conducted in 2020. They comment this was completed before conducting FFAs or finalizing the State's LTS controls in 2022. Therefore, the Commenters assert that Georgia impermissibly reversed the SIP planning sequence and that Georgia's RPGs are based on modeling results which do not meet the RHR requirement that RPGs must be based on enforceable SIP measures. The Commenters argue that Georgia's response to comments ignored the problems raised regarding the RPGs and that Georgia's response that the State's

RPGs "are representative of all known control measures necessary to make reasonable progress" is unfounded.

Additionally, the Commenters assert that Georgia "cherry-picked" a statement from EPA's 2019 Guidance in response to the concerns raised, *i.e.*, EPA's statement that states may conduct modeling to establish RPGs before "the outcome of some final state decisions on emission control measures [are] known." The Commenters state Georgia ignored other parts of EPA's 2019 Guidance explaining that if a state conducted modeling for RPGs before finalizing LTS control determinations, the state must adjust its RPGs to reconcile the scenarios before the SIP revision with the RPGs is submitted. The Commenters argue that nothing in Georgia's SIP revision or EPA's proposal indicates that Georgia made adjustments to its RPGs after its FFA and finalizing its LTS, which the Commenters argue is contrary to EPA's 2019 Guidance. Thus, the Commenters contend that EPA must not approve Georgia's RPGs for its three Class I areas and must require that Georgia adjust those goals to properly reflect enforceable emission limitations adopted in the LTS portion of Georgia's SIP.

Response 24: EPA disagrees that Georgia's RPGs must be disapproved on the basis that they do not reflect any new measures resulting from the three FFAs. EPA reiterates that the process for establishing RPGs for each Class I area is prescribed in the RHR and its amendments and discussed in related guidance.^{72 73 74} The RPGs established by the states with Class I areas are not directly enforceable but will be considered by the Administrator in evaluating the adequacy of the measures in the implementation plan in providing for reasonable progress towards achieving natural visibility conditions at that area. *See* 40 CFR 51.308(f)(3)(iii). As explained in footnote 34 of the NPRM of the Georgia Haze Plan, RPGs are intended to reflect the projected impacts of the measures all contributing

⁷² *See* 40 CFR 51.308; 64 FR 35714, July 1, 1999; and 82 FR 3078, January 10, 2017.

⁷³ *See* "Guidance on Regional Haze State Implementation Plans for the Second Implementation Period" available at: www.epa.gov/visibility/guidance-regional-haze-state-implementation-plans-second-implementation-period. EPA Office of Air Quality Planning and Standards, Research Triangle Park (August 20, 2019).

⁷⁴ *See* "Clarifications Regarding Regional Haze State Implementation Plans for the Second Implementation Period" available at: www.epa.gov/system/files/documents/2021-07/clarifications-regarding-regional-haze-state-implementation-plans-for-the-second-implementation-period.pdf. EPA Office of Air Quality Planning and Standards, Research Triangle Park (July 8, 2021).

states include in their LTS. However, due to the timing of analyses, control determinations by other states, and other ongoing emissions changes, a particular state's RPGs may not reflect all control measures and emissions reductions that are expected to occur by the end of the planning period.

Because the air quality modeling to calculate RPGs is resource intensive and time consuming, EPA does not always expect the modeling to be repeated after a subsequent change in the content of a state's own LTS or another state's LTS that impacts the host state's Class I area(s). 2019 Guidance at 47–48.

Adjustment of the RPGs once modeling is completed to reflect new FFA outcomes is not required. However, the 2019 Guidance provides recommendations for addressing the timing of RPG calculations when states are developing their LTS on disparate schedules and for adjusting RPGs using a post-modeling approach. The outcome of a state's source selection process and subsequent evaluation of technically feasible and cost-effective emissions controls as part of FFAs determine what constitutes the state's LTS for that particular planning period. If a state's source selection process and evaluation of technically feasible and cost-effective controls results in a LTS that includes the enforceable emissions limitations, compliance schedules and other measures that are necessary to make reasonable progress, then the requirements of the RHR are satisfied for that planning period. Any additional emissions reductions resulting from new FFA measures not included in the 2028 RPGs serve to provide further assurance that the State's Class I areas and those areas affected by the State's sources will achieve their 2028 RPGs.

Comment 25: The Commenters assert that EPA's proposal to approve Georgia's state-to-state consultations violates the CAA and RHR. They specifically mention EPA's 2017 amendments to the RHR stating "states must exchange their four factor analyses and the associated technical information that was developed in the course of devising their long-term strategies."

The Commenters contend that EPA treats the consultation process as a box-checking exercise. Additionally, they argue that EPA's proposal and TSD only recites what Georgia provided regarding its consultation, without conducting an independent analysis, and that EPA only mentioned that Georgia documented its consultation with other states. The Commenters assert that Georgia failed to independently assess whether additional controls on out-of-state sources are needed to achieve

reasonable progress. Therefore, both Georgia and EPA will need to independently evaluate all information in the record, as well as provide an explanation for their final determinations.

The Commenters state that Georgia recognizes that sources from other states are projected to impact visibility in Georgia's Class I areas, and the State requested FFAs from Florida, South Carolina, Kentucky, Tennessee, Ohio, Indiana, and Pennsylvania. However, the Commenters state that few of the out-of-state sources are adopting new control measures as a result of the FFAs. Furthermore, the Commenters assert that Georgia failed to critically evaluate whether additional controls are warranted from out-of-state sources to ensure reasonable progress.

The Commenters assert that EPA must require that Pennsylvania optimize or upgrade controls at the Keystone Generating Station (Keystone Station). The Commenters state that the Keystone Station is not exempt from an FFA simply because it has systems (FGD and SCR) in place that meet the Mercury and Air Toxics Standards rule. Additionally, the Commenters contend that the scrubbers currently in place are underperforming and do not achieve at least 95 percent control efficiency, let alone the 98 percent control efficiency that a modern wet scrubber system is capable of continuously achieving. The Commenters state that of the control measures that Keystone Station did consider in FFA, running one more level of recycle pumps would be cost-effective (\$413/ton of NO_x), and must be required. The Commenters argue that modern SCR systems have been shown to operate at an average monthly NO_x emission rate of 0.05 lb/MMBtu or lower, whereas the current SCR systems in Units 1 and 2 of the Keystone Station in 2019 have higher NO_x emissions rates of 0.104 and 0.103 lb/MMBtu, respectively. In response to the Keystone Station's assertion that optimization of the current SCR systems will be addressed in a future case-by-case NO_x reasonably available control technology (RACT) analysis, the Commenters contend that a future RACT analysis is not an off-ramp from the regional haze requirements that apply now. Furthermore, the Commenters argue that the outcome of the RACT analysis will likely be different and less stringent because the analysis applies a different set of factors. Therefore, the Commenters assert that EPA must require Pennsylvania to direct the Keystone Station to evaluate additional cost-effective control measures, and the agency must ensure

that the accuracy of cost-effectiveness arguments regarding the new controls are supported and documented.

The Commenters also assert EPA must require that Ohio direct the Gavin Power Plant (Plant Gavin) to optimize or upgrade controls. The Commenters argue that Ohio failed to show that NO_x emissions from Plant Gavin are effectively controlled since the State did not show that an FFA for NO_x control on the facility would be futile. Furthermore, the Commenters contend that nothing in the RHR itself permits the states to exclude sources from an FFA on the basis that they are "effectively controlled." Moreover, the Commenters argue that Plant Gavin's FFA of SO₂ controls contain errors, and that there are feasible and cost-effective controls available that can reduce SO₂ emissions from the facility. The Commenters maintain that because Plant Gavin likely contributes to the impairment to both Georgia's and Ohio's Class I areas, EPA must require Ohio to perform an FFA of NO_x controls and implement available and cost-effective SO₂ controls for Plant Gavin.

The Commenters further assert that EPA cannot approve Georgia's consultation with Indiana. The Commenters state that Georgia disagreed with Indiana's response to not require FFAs from its EGUs (including Gibston Station and AEP Rockport Generating Station), and Georgia's consultation record is incomplete because "there is no record of the Indiana disagreement in the Georgia SIP." If Georgia does disagree with Indiana, the Commenters argue that 51.308(f)(2)(ii)(C) would apply, which requires Georgia to "describe the actions taken to resolve the disagreement" and EPA "take this information into account." The Commenters assert that EPA cannot approve of Georgia's state-to-state consultation because Georgia has not adequately documented its disagreement and resolution of the disagreement with Indiana, which the Commenters state is in violation of the CAA and the RHR.

Response 25: 40 CFR 51.308(f)(2)(ii) provides that a "State must consult with those States that have emissions that are reasonably anticipated to contribute to visibility impairment in the mandatory Class I Federal area to develop coordinated emission management strategies containing the emission reductions necessary to make reasonable progress." If the state disagrees, the state must describe the actions taken to resolve the disagreement (40 CFR 51.308(f)(2)(ii)(C)).

Consultation may include efforts to reach agreement on the measures that each state will apply to its sources, or agreement on decision thresholds and other decision approaches, but it does not require such effort by any state and does not require that agreements be reached. If neither consulting state has sought an agreement about measures to be included in their SIP revision, neither state is required to include in its implementation plan the description mentioned in this requirement. However, if one state has formally asked another state to adopt a particular measure for a particular source, and the second state has not adopted that measure and also has not adopted an equivalent measure(s) as described in 40 CFR 51.308(f)(2)(ii)(A), then both states are subject to this requirement to describe the actions taken to resolve the disagreement. This provision does not specify that any particular actions towards resolution be taken. If the two states submit SIP revisions that disagree on the controls in each state that are needed for reasonable progress, the RHR provides for EPA to consider the technical information and explanations presented by both states when considering whether to approve each state's SIP.

2019 Guidance, at p. 53.

EPA's review of Georgia's interstate consultation process was hardly a box checking exercise, as EPA independently reviewed all of the consultation documentation provided by Georgia within its Haze Plan. Those materials are primarily contained in Appendix F of the Haze Plan, and EPA affirms that GA EPD properly complied with 40 CFR 51.308(f)(2)(ii) by consulting with Florida, South Carolina, Tennessee, Kentucky, Indiana, Pennsylvania, and Ohio and requesting FFAs for facilities located within those states with visibility impacts to Georgia Class I areas exceeding one percent for SO₂ or NO_x. Specifically, five facilities are located in Florida, one facility is located in Kentucky, two facilities are located in South Carolina, one facility is located in Tennessee, two facilities are located in Indiana, two facilities are located in Ohio, and one facility is located in Pennsylvania. Regarding Indiana specifically, Georgia documented communications between Georgia and Indiana in Appendix F-2b of the Haze Plan, and on pages 243–244 of the Haze Plan narrative, Georgia indicated that Indiana “is not requiring 4-factor analyses from its EGUs.” Georgia does not explicitly state its disagreement with Indiana, but based on the record, the states appear to disagree based on Georgia's request for FFAs at Plant Gibson and AEP Rockport along with Georgia's documentation within its Haze Plan that Indiana will not be preparing FFAs for these two facilities. As noted elsewhere in Georgia's Haze Plan, AEP Rockport's SO₂ impact on

visibility at Cohutta is 4.68 percent, and Plant Gibson's SO₂ impact on visibility at Cohutta is 2.31 percent. In accordance with 40 CFR 51.308(f)(2)(ii), Georgia has adequately documented its position and Indiana's position, including in a letter VISTAS sent to Indiana on behalf of Georgia dated June 22, 2020, requesting FFAs for these facilities, as well in follow-up emails. See Haze Plan, Appendix F-2b.

In regards to the Commenters' contention that EPA must require controls at facilities outside of Georgia in this action on Georgia's regional haze SIP, this action is not the appropriate forum to submit such comments. To the extent that Commenters have concerns about facilities outside of Georgia, such as those facilities in Pennsylvania, Ohio, and Indiana, any public comments related to out-of-state sources should be provided during the public comment periods regarding those states' haze plans. Georgia lacks authority to regulate these out-of-state sources, and therefore EPA cannot require other states to implement control measures through the Georgia regional haze SIP.

Comment 26: The Commenters assert that EPA must disapprove Georgia's SIP because the State failed to engage in meaningful FLM consultation. The Commenters state that while Georgia did summarize and respond to the FLMs' comments, it did not meaningfully consider or incorporate the suggestions into the SIP. The Commenters contend that “[c]ontrary to the CAA and RHR, Georgia treated the consultation as a box-checking exercise” and released the draft of the SIP revision for public comments only two days after it closed the formal consultation with FLMs. The Commenters argue that Georgia made only minor edits to the SIP based upon the FLMs' comments and did not fully respond to the many concerns raised. Some concerns included screening thresholds that led to very few Georgia sources for analysis, exclusion of NO_x from FFAs, lack of FFAs for multiple facilities (Plant Wansley, Plant Scherer, the Rome Linerboard Mill, Brunswick Cellulose, and IP-Savannah), concerns about the FFA for SO₂ at Plant Bowen, and concerns about the VISTA modeling approach. Therefore, the Commenters assert that EPA must reject Georgia's SIP revision on that basis that the State failed to meet the CAA's and RHR's requirement to “engage in meaningful FLM consultation.” Additionally, the Commenters argue that because EPA must disapprove of Georgia's source selection method, FFA, and RPGs, the Agency must also disapprove of Georgia's FLM consultation on the basis

that the FLM consultation was based upon a SIP revision that did not meet the statutory and regulatory requirements of the CAA and RHR.

Response 26: The FLMs play important roles in addressing visibility at Class I areas. 40 CFR 51.308(i)(3) requires states to include a description of how they address any comments provided by the FLMs. However, neither the CAA nor the RHR requires the state to agree with the FLM recommendations, nor do they specify the degree of consideration that must be given to those comments. Rather, 40 CFR 51.308(i)(3) requires the State to “include a description of how it addressed any comments provided by the Federal Land Managers.”

Georgia complied with this requirement by documenting how it addressed the FLMs' comments in 21 pages of single-spaced responses to the FLMs' comments contained within Appendix H-4a of its Haze Plan. The Commenters do not identify any specific FLM comments that Georgia did not respond to. EPA reviewed GA EPD's responses and finds that they comply with the RHR requirement to describe how the state addressed comments provided by the FLMs. EPA thus disagrees with the Commenters that GA EPD did not fully respond to the FLMs' comments.

The timing of this consultation was also compliant with the RHR. FLM-State consultation must take place at least 60 days prior to the state public comment period on any haze plan or plan revision pursuant to 40 CFR 51.308(i)(2). GA EPD complied this RHR requirement by initiating consultation with the FLMs on April 22, 2022, which was 62 days before the opening of the State's public comment period on June 24, 2022. In addition, GA EPD met with NPS upon request on June 14, 2022, to discuss NPS' feedback in more detail.⁷⁵

Comment 27: The Commenters assert that EPA must consider the environmental justice (EJ) impacts of Georgia's SIP revision. The Commenters state that EPA states it can ignore EJ implications of Georgia's SIP revision, and that the Agency contravenes directives from the current presidential administration, as well as EPA's commitments and action plans. The Commenters contend that EPA cannot argue to prioritize EJ while also disavowing any need to consider the disproportionate impacts of haze pollution sources in Georgia and its own actions on Georgia's SIP revision.

⁷⁵ FWS, FS, and EPA representatives were also in attendance at the June 14, 2022, Georgia-NPS consultation meeting.

The Commenters assert that executive orders (EOs), as well as EPA's own commitments and action plans direct the Agency to consider EJ implications. The Commenters state that EOs in place since 1994 require EPA to incorporate EJ as "part of its mission by identifying and addressing . . . disproportionately high and adverse human health or environmental effects of its program, policies, and activities," which they argue to be applicable to regional haze SIP actions on minority populations and low-income populations. Additionally, the Commenters argue the directive to incorporate EJ into all of the Agency's actions was reaffirmed by the Biden Administration in 2021 through back-to-back EOs directed to federal agencies, including EPA, and again in 2023 when the Administration issued the "Executive Order on Revitalizing Our Nation's Commitment to Environmental Justice for All."⁷⁶

The Commenters state that Administrator Regan recognized that EPA has a lead role in coordinating EJ efforts across the country and "urged all EPA offices to take 'affirmative steps to incorporate environmental justice consideration into their work . . . in regulatory development processes and to consider regulatory options to maximize benefits to these communities,'" and the Commenters argue that EPA's Equity Action Plan⁷⁷ issued in 2022 makes equity, EJ, and civil right a centerpiece of the agency's regulatory work, which includes actions on regional haze SIPs. Furthermore, the Commenters assert that the determination of which sources to selected for an FFA and the reasonable progress measure to require for a source should incorporate EJ and equity into technical analyses, citing EPA's 2019 Guidance, which specifies that "[s]tates may also consider any beneficial non-air quality environmental impacts," as well as the 2021 Clarification Memo issued by the Agency.

The Commenters contend that EPA ignores the previously mentioned EOs, plans, and commitments when concluding that it is not required to consider EJ impacts of pollutants that contribute to regional haze from Georgia's sources and actions on the SIP revision. The Commenters state that the

same pollutants that affect visibility at national parks and wilderness areas also cause significant public health impacts, particularly those who live closest to the facilities.

Drawing from EJScreen data,⁷⁸ the Commenters state that emissions from sources of concern raised by NPS and the Commenters in their comments to Georgia are likely impacting areas characterized by higher percentages of low income and people of color. Specifically, within a 10-mile radius of Plant Bowen, the Commenters state that 32 percent of the population are low-income and 25 percent as people of color, with the community surround the plant in the 73rd percentile for the PM EJ Index and 67th percentile for ozone EJ Index when compared to the rest of the country. The Commenters state that analysis conducted by a Clean Air Task Force, based on 2019 emissions, shows that Plant Bowen's emissions are responsible for "59 deaths, 7 hospital admissions, 13 asthma ER visits, 28 heart attacks, 34 cases of acute bronchitis, 637 asthma attacks, and 3020 lost work days each year." The Commenters also highlight the community surrounding IP-Savannah, which they state is 37 percent low-income and 59 percent people of color, as well as being in the 77th percentile for the PM EJ index when compared to the rest of the country. Additionally, the Commenters argue that the population surrounding the Rome Linerboard Mill, a facility that Georgia did not select or analyze in its SIP revision and EPA does not discuss in its proposal, is comprised of 44 percent low-income and 40 percent people of color, and in the 82nd percentile for PM EJ index and 71st percentile for ozone EJ index. The Commenters contend that the sources from the facilities identified above are likely adversely impacting those communities and assert that EPA can and must hold Georgia accountable to consider EJ impacts of haze pollution from in-state sources, as well as analyze the potential disparate impacts of its action on Georgia's SIP revision.

Response 27: EPA disagrees with this comment but acknowledges the EJScreen information provided by the Commenters. The regional haze statutory provisions do not explicitly address considerations of EJ and neither do the regional haze regulatory requirements of the second planning period in 40 CFR 51.308(f), (g), and (i). However, the lack of explicit direction does not preclude a State's SIP consideration of EJ in its SIP submittal.

⁷⁸ EJScreen, an EJ screening and mapping tool, is available at: <https://www.epa.gov/ejscreen>.

As explained in "EPA Legal Tools to Advance Environmental Justice,"⁷⁹ the CAA provides states with the discretion to consider EJ in developing rules and measures related to regional haze. While a state may consider EJ under the reasonable progress factors, neither the statute nor the regulation requires states to conduct an EJ analysis for EPA to approve a SIP submission.

In this instance, Georgia elected not to consider EJ under the reasonable progress factors. In Appendix H of the Haze Plan, in response to an EJ comment received from the NPCA and Sierra Club, GA EPD states that the purpose of the RHR is to improve visibility in the Class I areas, not to look at health impacts from criteria pollutants in areas outside Class I areas, which is addressed through the implementation of the National Ambient Air Quality Standards. In addition, GA EPD notes that it has not identified any EJ communities living in any Class I areas whose visibility would be disproportionately impacted by GA EPD's selection of reasonable progress controls.

As discussed in the NPRM and in this notice of final rulemaking, EPA has evaluated Georgia's SIP submission against the statutory and regulatory regional haze requirements and determined that it satisfies those minimum requirements. Furthermore, the CAA and applicable implementing regulations neither prohibit nor require such an evaluation of EJ with a regional haze SIP.

III. Incorporation by Reference

In this document, EPA is finalizing regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, and as discussed in Sections I and II of this preamble, EPA is finalizing the incorporation by reference into Georgia's SIP GA EPD Permit No. 4911-015-0011-V-04-3 for Bowen Steam-Electric Generating Plant (State effective September 6, 2023), GA EPD Permit No. 2631-051-0007-V-04-1 for International Paper—Savannah (State effective October 20, 2023), and GA EPD Permit No. 2631-127-0003-V-07-3 for Brunswick Cellulose LLC (State effective October 25, 2023). EPA has made, and will continue to make, these materials generally available through www.regulations.gov and at the EPA Region 4 Office (please contact the person identified in the **FOR FURTHER**

⁷⁹ See "EPA Legal Tools to Advance Environmental Justice", May 2022, available at: <https://www.epa.gov/system/files/documents/2022-05/EJ%20Legal%20Tools%20May%202022%20FINAL.pdf> at 35-36.

⁷⁶ The "Executive Order on Revitalizing Our Nation's Commitment to Environmental Justice for All" is available at: <https://www.whitehouse.gov/briefing-room/presidential-actions/2023/04/21/executive-order-on-revitalizing-our-nations-commitment-to-environmental-justice-for-all/>.

⁷⁷ U.S. Env't Prot. Agency, E.O. 13985 Equity Action Plan at 4-11 (Apr. 2022), see <https://www.epa.gov/system/files/documents/2022-04/epa-equityactionplanapril2022508.pdf>.

INFORMATION CONTACT section of this preamble for more information). Therefore, these materials have been approved by EPA for inclusion in the SIP, have been incorporated by reference by EPA into that plan, are fully federally enforceable under sections 110 and 113 of the CAA as of the effective date of the final rulemaking of EPA's approval, and will be incorporated by reference in the next update to the SIP compilation.⁸⁰

IV. Final Action

EPA is approving Georgia's August 11, 2022, SIP submission as satisfying the regional haze requirements for the second planning period contained in 40 CFR 51.308(f). Thus, EPA is adopting into Georgia's SIP GA EPD Permit No. 4911-015-0011-V-04-3 for Bowen Steam-Electric Generating Plant, GA EPD Permit No. 2631-051-0007-V-04-1 for International Paper—Savannah, and GA EPD Permit No. 2631-127-0003-V-07-3 for Brunswick Cellulose LLC.

V. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the CAA and applicable Federal regulations. *See* 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 14094 (88 FR 21879, April 11, 2023);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described

in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4);

- Does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because it approves a state program;
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001); and
- Is not subject to requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA.

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rulemaking does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by E.O. 13175 (65 FR 67249, November 9, 2000).

E.O. 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (59 FR 7629, February 16, 1994) directs Federal agencies to identify and address “disproportionately high and adverse human health or environmental effects” of their actions on communities with EJ concerns to the greatest extent practicable and permitted by law.

Executive Order 14096 (Revitalizing Our Nation's Commitment to Environmental Justice for All, 88 FR 25251, April 26, 2023) builds on and supplements E.O. 12898 and defines EJ as, among other things, the just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, or Tribal affiliation, or disability in agency decision-making and other Federal activities that affect human health and the environment.

Georgia EPD did not evaluate EJ considerations as part of its SIP submittal; the CAA and applicable implementing regulations neither prohibit nor require such an evaluation. EPA did not perform an EJ analysis and did not consider EJ in this action. Due to the nature of the action being taken here, this action is expected to have a neutral to positive impact on the air

quality of the affected area. Consideration of EJ is not required as part of this action, and there is no information in the record inconsistent with the stated goal of E.O. 12898/14096 of achieving EJ for communities with EJ concerns.

This action is subject to the Congressional Review Act, and EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a “major rule” as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by January 21, 2025. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. (*See* section 307(b)(2).)

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Nitrogen dioxide, Particulate matter, Sulfur oxides.

Dated: November 14, 2024.

Cesar Zapata,

Acting Regional Administrator, Region 4.

For the reasons stated in the preamble, EPA amends 40 CFR part 52 as follows:

PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

- 1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart L—Georgia

- 2. In § 52.570(d), amend “Table 2 to Paragraph (d)” by adding entries for “Bowen Steam-Electric Generating Plant”, “International Paper-Savannah”, and “Brunswick Cellulose LLC” at the end of the table to read as follows:

§ 52.570 Identification of plan.

(d) * * *

⁸⁰ 62 FR 27968 (May 22, 1997).

TABLE 2 TO PARAGRAPH (d)—EPA-APPROVED GEORGIA SOURCE-SPECIFIC REQUIREMENTS

Name of source	Permit No.	State effective date	EPA approval date	Comments
Bowen Steam-Electric Generating Plant.	4911-015-0011-V-04-3	9/6/2023	11/21/2024, [Insert first page of Federal Register citation].	
International Paper—Savannah.	2631-051-0007-V-04-1	10/20/2023	11/21/2024, [Insert first page of Federal Register citation].	
Brunswick Cellulose LLC ..	2631-127-0003-V-07-3	10/24/2023	11/21/2024, [Insert first page of Federal Register citation].	In Condition 6.2.52, the phrase “shall use emissions factors” means “shall use an emissions factor of 157 S lb/Mgal.”

■ 3. In § 52.570(e), amend the table by adding an entry for “Regional Haze Plan—Second Planning Period” at the end of the table to read as follows: (e) * * *

EPA-APPROVED GEORGIA NON-REGULATORY PROVISIONS

Name of nonregulatory SIP provision	Applicable geographic or nonattainment area	State submittal date/effective date	EPA approval date	Explanation
Regional Haze Plan—Second Planning Period.	Georgia	8/11/22	11/21/2024, [Insert first page of Federal Register citation].	

[FR Doc. 2024-26977 Filed 11-20-24; 8:45 am]
 BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 272

[EPA-R06-RCRA-2021-0330; FRL-9522-01-R6]

Texas: Incorporation by Reference of State Hazardous Waste Management Program

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This rule codifies in the regulations the prior approval of Texas’ hazardous waste management program and incorporates by reference authorized provisions of the State’s statutes and regulations. The Environmental Protection Agency (EPA) uses the regulations entitled “Approved State Hazardous Waste Management Programs” to provide notice of the authorization status of State programs and to incorporate by reference those provisions of the State statutes and regulations that are authorized and that EPA will enforce under the Solid Waste Disposal Act, commonly referred to as the Resource Conservation and

Recovery Act (RCRA). The EPA previously provided notices and opportunity for comments on the Agency’s decisions to authorize the State of Texas program and the EPA is not now reopening the decisions, nor requesting comments, on the Texas authorizations as previously published in the **Federal Register** documents specified in Section I.C of this final rule document.

DATES: This regulation is effective on December 23, 2024. The Director of the Federal Register approves this incorporation by reference as of December 23, 2024, in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

ADDRESSES: The EPA has established a docket for this action under Docket ID No. EPA-R06-RCRA-2021-0330. All documents in the docket are listed on the <https://www.regulations.gov> website. Although listed in the index, some information is not publicly available, e.g., Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available electronically through <https://www.regulations.gov>.

You can view and copy the documents that form the basis for this

codification and associated publicly available materials from 8:30 a.m. to 4:00 p.m., Monday through Friday, at the following location: EPA, Region 6, 1201 Elm Street, Suite 500, Dallas, Texas 75270, phone number: (214) 665-8533. Interested persons wanting to examine these documents should make an appointment with the office.

FOR FURTHER INFORMATION CONTACT: Alima Patterson, EPA Region 6 Regional Authorization/Codification Coordinator, RCRA Permits and Solid Waste Section (LCR-RP), Land, Chemicals and Redevelopment Division, EPA Region 6, 1201 Elm Street, Suite 500, Dallas, Texas 75270, phone number: (214) 665-8533, Email address: patterson.alima@epa.gov.

SUPPLEMENTARY INFORMATION:

I. Incorporation by Reference

A. What is codification?

Codification is the process of placing a State’s statutes and regulations that comprise the State’s authorized hazardous waste management program into the Code of Federal Regulations (CFR). Section 3006(b) of RCRA, as amended, allows the EPA to authorize State hazardous waste management programs to operate in lieu of the Federal hazardous waste management regulatory program. The EPA codifies its authorization of State programs in 40