

APPENDIX I-5

Florida Department of Environmental Protection
Division of Air Resource Management

Response to Public Comments

Regional Haze Second Implementation Period

The Department received comments regarding emissions from sugarcane burning. Commenters state that the Department must consider emissions from and include emission limitations on pre-harvest sugarcane field burning. Commenters state that pursuant to 40 CFR 51.308(d)(3)(iv), the Department must identify all anthropogenic sources of visibility impairment which should include consideration of all major and minor stationary sources, mobile sources, and area sources, and that the Department must evaluate all sources of visibility impairing pollutants. Commenters state that the Department should require green harvesting as part of basic smoke management practices.

Response: The regional haze rule does not require that the state evaluate all sources of visibility-impairing pollutants through a four-factor analysis. Pursuant to 40 CFR 51.308(f)(2)(i), which applies to plans in the second and subsequent implementation periods, "...The 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..." The Department has the discretion to reasonably select sources for a reasonable progress analysis and is not required to evaluate all sources. The only requirement of the Regional Haze Rule is that the Department must describe the criteria used to determine which sources were evaluated.

As discussed in Section 7.4 in the document "*Florida Regional Haze Plan for the Second Implementation Period*" (Regional Haze Plan) sulfates continue to be the largest contributor to anthropogenic visibility impairment at all affected Class I areas. Therefore, the Department focused its analysis on emissions, the precursor to sulfates, and point sources, the most significant source of SO₂ in Florida, which in 2017 (EPA's most recent National Emissions Inventory) emitted 85% of the SO₂ in Florida. In addition, management of emissions from prescribed burning is addressed in Florida's Smoke Management Plan, which was developed in consultation with the Florida Forest Service. The Florida Forest Service implements the Smoke Management Plan in issuing daily burn authorizations around the state. The Florida Forest recently announced additional protocols for prescribed fire burning, including the burning of pre-harvest sugarcane, that includes taking into account ambient air quality before issuing daily authorizations.

The Department received comments regarding environmental justice (EJ). Commenters state that the Department should analyze the environmental justice impacts of its regional haze SIP and ensure the SIP will reduce emissions and minimize harms to disproportionately impacted communities. For those reasonable progress sources located near a low-income or minority community that suffers disproportionate environmental harms, the Department's four-factor analysis should take into consideration how each considered measure would either increase or

reduce the environmental justice impacts to the community. Commenters note that EPA will be required to ensure that its action on Florida's regional haze plan addresses any disproportionate environmental impacts of the pollution that contributes to haze and therefore, that the Department should facilitate EPA's compliance with these requirements by considering EJ in its SIP.

Response: The requirements of the regional haze rule are that Florida address regional haze in each mandatory Class I Federal area located within Florida and in each mandatory Class I Federal area located outside Florida that may be affected by emissions from within the State. As required by the rule, Florida's long-term strategy and the reasonable progress goals provide for an improvement in visibility for the most impaired days since the baseline period and ensure no degradation in visibility for the clearest days since the baseline period.

Although the rule does not require analysis of environmental justice, EPA's July 2021 regional haze guidance encourages states to consider whether there may be environmental justice impacts when developing the regional haze plan. For the sources in Florida that were selected for analysis, Florida's regional haze SIP requires that either the existing SO₂ limits be incorporated into the SIP to ensure that the facilities will continue to operate at a level that meets reasonable progress, or that new permit limits be incorporated into the SIP requiring the facilities to meet more stringent requirements representing reasonable progress. Emission limits contained in Florida's Regional Haze SIP will provide air quality benefits to the areas around the selected sources in addition to the visibility benefits at Federal Class I areas. As discussed in the Regional Haze Plan in Section 7.2.4, emissions of SO₂ and NO_x in Florida are expected to continue to decrease through 2028, ensuring improved air quality for all affected populations.

With respect to EPA's requirements to address Environmental Justice, the Department expects that EPA will comply with all applicable Executive Orders when considering Florida's Regional Haze SIP; the Department's role is to comply with the requirements of the Regional Haze Rule.

The Department received comments regarding NO_x emissions and nitrates. Commenters state that the Department's analysis used outdated monitoring data that does not represent the shift in nitrate contribution to visibility impairment in the Southeast over the last 5-10 years, and that this shift was not reflected in future predictions. Commenters also stated that the Department should complete a full four-factor analysis of NO_x emissions for Duke Crystal River Units 4 and 5, TECO Big Bend Units 3 and 4, JEA Northside Units 1 and 2, and Seminole Generating Station Units 1 and 2, including consideration of SNCR installation or upgrades.

Response: As shown in Figure 2-9 through Figure 2-13 in the Regional Haze Plan, there has not been a significant shift in the nitrate contribution to visibility impairment in Class I areas in and nearby Florida. Sulfates continue to be the largest contributor to anthropogenic visibility impairment at all affected Class I areas. Therefore, Florida did not analyze NO_x emissions, the precursor to nitrates, but did analyze SO₂ emissions, the precursor to sulfates. As stated in EPA’s August 2019 regional haze guidance, “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.” The regional haze program is a long-term program with the goal of making reasonable progress toward natural visibility conditions over time. If nitrates become an important contributor to visibility impairment in future years, then NO_x emissions will be evaluated in future implementation periods.

EPA’s July 2021 regional haze guidance states that EPA expects states to consider SO₂ and NO_x, and any state choosing not to consider both pollutants should show why such consideration would be unreasonable, especially states that considered both pollutants in the first planning period. The Department only considered SO₂ from point sources in selecting reasonable progress sources in the first implementation period and is only considering SO₂ from point sources in selecting reasonable progress sources in the second implementation period. This is because, as described previously and in Section 7.4 of the Regional Haze Plan, sulfates continue to be the largest contributor to anthropogenic visibility impairment at all Class I areas within Florida and at affected Class I areas nearby Florida, and point sources continue to be the most significant source of SO₂ in Florida.

The Department received comments regarding source selection methodology. Commenters state that the Department used high thresholds and unnecessary filters to select sources, resulting in an unreasonably low number of selected sources. Commenters state that the Department should revise the source selection methodology such that all facilities are fully analyzed. Commenters requested that the Department explain its decision to base source selection on projected 2028 emissions instead of actual emissions and must compare how the suite of selected sources compares with a selection based on historical emissions. Commenters also request that the Department provide unit-level NO_x, SO₂, and PM emissions of all point sources for the last five years. Commenters stated that the Department did not provide reasoned bases to support the 1.00% threshold used in the PSAT analysis. Commenters also state that any facilities the Department eliminated from consideration based on the AOI vs. PSAT fractional bias metric (discussed in Section 7.6.3 of the Regional Haze Plan) should be re-examined, including IFF and Symrise, because the fractional bias metric uses predicted AOI values instead of monitored or measured values.

Response: The regional haze rule does not require states to evaluate all sources of pollutants for a reasonable progress analysis. States have the discretion to determine which sources will be evaluated and the rule requires that states describe the criteria used to determine which sources are evaluated (40 CFR 51.308(f)(2)(i)). Sections 7.4 through 7.6 in the Regional Haze Plan explain the criteria used to select sources and why it results in a reasonable set of sources for analysis, including explaining why the Department’s analysis focused on sulfates (it is the largest contributor to visibility impairment at Florida Class I areas), SO₂ emissions (it is the precursor to sulfates), and EGU and non-EGU point sources of SO₂ (these are the largest source of SO₂ emissions in Florida).

Regarding the decision to base source selection on projected 2028 emissions, as discussed on page 17 of EPA’s August 2019 regional haze guidance, states may use estimated 2028 emissions to estimate visibility impacts when selecting sources, rather than recent year emissions. The Department did compare the 2028 projected emissions to historical emissions in Section 7.6.5 of the Regional Haze Plan and addressed significant differences. In the periodic progress report due on January 31, 2025, the Department will be required to assess emissions trends and any significant changes in anthropogenic emissions within or outside Florida and to reassess the 2028 projected emissions compared to historical emissions. If there are any significant emissions changes, such as anticipated emissions reductions that do not occur or unanticipated emissions increases, the Department is required to assess whether these changes impede progress on visibility improvement, determine whether the SIP is adequate, and revise the SIP if necessary.

Regarding unit-level point source emissions for the last five years, the Regional Haze Rule does not require that the SIP include five years of unit-level point source data. The Department’s 2011 and 2028 modeling runs, however, do include unit-level point source data.

Regarding comments on the thresholds, the Department explains the AOI threshold in Section 7.6.1 and the PSAT threshold in Section 7.6.4 of the Regional Haze Plan. In those sections the Department also explains that the AOI analysis and the PSAT analysis were not the exclusive methods for selecting sources. Florida also evaluated other significant sources that were not identified by the AOI and PSAT screening thresholds to ensure that a reasonable set of sources was selected for analysis.

Regarding comments on the fractional bias metric, although the fractional bias metric normally compares predicted values with observed values, the AOI calculations and PSAT modeled values are sensitivities for which observations are not available. PSAT is considered the most accurate tool available for evaluating source impacts at receptors. Therefore, PSAT modeled values are treated as the “observed” values and the AOI calculations are treated as

the “predicted” values. The fractional bias metric allows for a comparison between PSAT and AoI and shows how well the AoI results match the PSAT modeled values. The data from the fractional bias metric calculation support the statement that for sources within 100 km of a Class I area, the AoI calculation will be at least three times higher than the PSAT modeled value. Therefore, these data support eliminating IFF and Symrise from consideration.

The Department received comments on the effectively-controlled units that were exempt from full four-factor analysis and comments on other units that were not selected for analysis. Specifically, commenters state that the Department wrongly exempted from four-factor analysis the following sources: Duke Crystal River Units 4 and 5, TECO Big Bend Units 3 and 4, Seminole Generating Station Units 1 and 2, Nutrien White Springs SAPs, Mosaic New Wales SAPs, Mosaic Bartow SAPs, Breitburn, and Deerhaven Generating Station. Commenters also stated that Florida should ensure best available controls are required for any source that is analyzed. Commenters also provided additional comments on specific facilities. Commenters stated that the Department only excluded the Breitburn facility because it was more than 300 km from the nearest Class I area. Commenters stated that the Department excluded the Deerhaven Generating Station facility from analysis based on implementation of a fuel co-firing project. Commenters also stated that the Department should not allow OUC Stanton to burn coal beyond 2027. Commenters stated that TECO Big Bend Units 2 and 3 should have enforceable retirements by 2023 in the SIP and that TECO Big Bend Units 3 and 4 should not be allowed to co-fire coal effective immediately. Commenters stated that the Seminole Generating Station facility should have an enforceable requirement to retire by 2028.

Response: Regarding SO₂ emissions for the effectively-controlled units meeting the MATS SO₂ emission limit of 0.2 lb/MMBtu, page 23 of EPA’s August 2019 regional haze guidance notes that this limit is “low enough that it is unlikely that an analysis of control measures...would conclude that even more stringent control of SO₂ is necessary to make reasonable progress.” Regarding SO₂ emissions from the SAPs, page 22 of the August 2019 regional haze guidance additionally states, “If a source owner has recently made a significant expenditure that has resulted in significant reductions of visibility impairing pollutants at an emissions unit, it may be reasonable for the state to assume that additional controls for that unit are unlikely to be reasonable for the upcoming implementation period.”

EPA’s July 2021 regional haze guidance continues to allow use of the effectively controlled unit criteria within Regional Haze SIPs. EPA did, however, add a requirement that states should consider how the source’s actual operations compare to the permitted limits, to determine whether a lower limit could be achieved by the unit. The Department has already completed this comparison for the units meeting the MATS SO₂ limit (see Section 7.6.4.1 of the Regional Haze Plan).

For Nutrien White Springs, SO₂ emissions from SAPs E and F have approached the 3-hour permitted SO₂ emission limit of 2.6 pound per ton of 100% sulfuric acid (lb/ton). Although recently the long-term SO₂ emissions have operated in the range of 1.0-1.1 lb/ton (as compared to the long-term rolling average permit limit of 2.3 lb/ton), this is because the SAPs are operating well below the permitted production rate of 2,750 tons per day. In addition, the D catalyst beds of each SAP is loaded with new, high-efficiency vanadium/cesium catalyst and new vanadium catalyst has been added to the A, B, and C catalyst beds in preparation for the production rate of 2,750 tons per day that has not yet been achieved. All of this serves to decrease SO₂ emissions. However, as the production rate increases closer to the permitted limit of 2,750 tons per day and as the catalyst ages, it is expected that the 365-day rolling average SO₂ emission rate will approach the permitted limit of 2.3 lb/ton. Discussion of the proposed SIP emission limits for Nutrien White Spring has been added to Section 7.6.4.1 of Florida's Regional Haze SIP.

For the New Wales and Bartow facilities, the limits that are being used for Regional Haze purposes are already in Florida's SIP as part of Florida's Maintenance SIP for the Hillsborough-Polk SO₂ Maintenance Area. *See* 85 Fed. Reg. 9,666 (February 20, 2020). The Department is not proposing to include the production-based SO₂ emission limits as discussed in the comments. The SAPs currently operate at up to 99% of their permitted SO₂ caps of 1,090 lbs/hr and 1,100 lbs/hr, respectively. Therefore, the Department considers the current permitted SO₂ limits to be reasonable for all effectively-controlled units at Mosaic New Wales and Mosaic Bartow. Discussion of the proposed SIP emission limits for Mosaic New Wales and Mosaic Bartow has been added to Section 7.6.4.1 of Florida's Regional Haze SIP.

Regarding the comment on best available controls, the Regional Haze Rule does not require best available controls; it requires only measures necessary for reasonable progress.

Regarding specific comments on TECO Big Bend, TECO Big Bend Unit 2 was screened out from analysis due to insignificant SO₂ emissions. TECO Big Bend Units 3 and 4 were selected for analysis and the Department determined that, per EPA's regional haze guidance, these units meet SO₂ limits low enough that it is unlikely that an analysis of control measures would conclude that more stringent control of SO₂ is necessary for reasonable progress. Therefore, additional controls or measures beyond this are not necessary for reasonable progress.

Regarding specific comments on Seminole Generating Station, Units 1 and 2 were both selected for analysis and the Department determined that, per EPA's regional haze guidance, these units meet SO₂ limits low enough that it is unlikely that an analysis of control measures would conclude that more stringent control of SO₂ is necessary for reasonable progress.

Therefore, additional controls or measures beyond this are not necessary for reasonable progress.

Regarding Breitburn, the Department did not request that this facility complete a reasonable progress analysis as this facility was screened out through the AOI process due to its low impact on visibility impairment in Class I areas. AOI analysis accounts for distance from a Class I area, and therefore distance is one of the primary factors in determining a source's contribution to visibility impairment at a Class I area, among other factors. However, distance is not a factor that the Department used by itself to screen out facilities. In fact, there are facilities located more than 300 km from a Class I area that were selected for analysis (e.g. New Wales and Bartow are more than 300 km from Everglades and were selected for impacts at Everglades). The Breitburn facility was screened out through the AOI analysis due to its low estimated contribution to visibility impairment at Class I areas (less than 1%).

Regarding Deerhaven Generating Station, the Department did not request that this facility complete a reasonable progress analysis as this facility was screened out through the AOI analysis due to its low impact on visibility impairment in Class I areas, not because of the planned implementation of the fuel co-firing project.

The Department received general comments on cost-effectiveness calculations and commenters requested that the Department consider this information in the cost-effectiveness calculations. Specifically, commenters note the analyses should include sufficient documentation, such as vendor quotes, actual costs from similar facilities, or generally accepted cost estimates; equipment lives should not be too short; optimization should be required for scrubber; interest rates should not be too high; retrofit factors above 1.0 should be justified; baseline emissions should be realistic; and analyses should not include AFUDC and owners costs.

Response: Regarding documentation, the Department reviewed all cost-effectiveness calculations to determine whether additional information was needed. The Department disagrees that vendor quotes or site-specific information is necessary to estimate costs of compliance. While site-specific cost information is preferred, EPA's August 2019 guidance and the Control Cost Manual note that where site-specific information is not available, states may use generic cost estimates or estimation algorithms in determining costs of compliance. In addition, although EPA recommends that states use the Control Cost Manual as a source of cost estimates and algorithms, EPA does not require states to use it.

Regarding equipment life, interest rates, and cost items used, the Department agrees that in certain cases, as described in Section 7.8.1 and Section 7.8.2 of the Regional Haze Plan, the equipment life estimates, interest rates used, and certain cost items included in the initial analyses were not justified; where the estimated cost-effectiveness values were reasonably

close to being cost-effective, the Department updated the analyses with a 30-year lifetime, a 3.25% bank prime interest rate, and removed any cost items that were not justified. The Department did not revise calculations for control costs where the revised costs would still be significantly above a reasonable cost-effectiveness threshold. Regarding the comment on retrofit factors, none of the analyses used a retrofit factor greater than 1.0.

Regarding baseline emissions, the Department reviewed the emissions used in each analysis to confirm that they were reflective of recent and future expected operations.

The Department received comments on the four-factor analysis facilities and units (Georgia-Pacific Foley Mill, WestRock Panama City Mill, JEA Northside, and WestRock Fernandina Beach Mill). General comments on four-factor analyses include that the Department should require best performing controls in all analyses, and optimization should be required as part of any required scrubber or SCR upgrade. Commenters also provided specific comments about specific facilities. For JEA Northside, commenters state that the Department should require the facility to eliminate the burning of fuel oil in Unit 3 and should require that a four-factor analysis be performed that investigates the cost-effectiveness of optimizing the dry scrubber systems for Units 1 and 2. Commenters also state that the \$1,000,000 modification cost to accept lower sulfur fuel is not justified. For WestRock Fernandina Beach, commenters state that the Department should require a four-factor analysis for burning 100% natural gas in Power Boiler No. 7 and that fundamental redesign of the unit is not justification for removing this control measure from consideration. Commenters also noted issues with the Foley Mill and Panama City Mill four-factor analyses and stated that the Department cannot set Reasonable Progress Goals (RPGs) until all four-factor analyses are complete and all reasonable progress controls are determined.

Response: Regarding best performing controls, the regional haze rule does not require best performing or best available controls; it requires only measures necessary for reasonable progress.

Regarding JEA Northside, the Department has completed the four-factor analysis for Unit 3 and determined that the measures necessary for reasonable progress are prohibiting the purchase of fuel oil with greater than 1.0% sulfur content, and to either begin firing only fuel oil with sulfur content less than or equal to 1% in 2026, or shut down the unit by the end of 2028, as discussed in Section 7.8.1.1.5 of the Regional Haze Plan. Even if the modification costs are removed from the cost-effectiveness calculations, the conclusion of the analysis is the same in that the most cost-effective control option is switching to fuel oil with 1.0% or lower sulfur content.

Commenters also noted that some of the costs were redacted and, therefore, they were unable to reproduce the analysis. Under Florida law, trade secrets are allowed to be submitted to government agencies and are exempted from Florida's public records law. The Department did review these costs in an unredacted version sent as trade secrets and determined that they were reasonable estimates.

Regarding Foley Mill and Panama City Mill, the Department commits to submitting a future SIP submittal supplementing this one which will address the four-factor analyses for these two facilities. The Department will assess the documentation provided by the facilities, ensure that technically-feasible control measures are evaluated, ensure baseline emissions used in the analysis are appropriate, and ensure that the cost-effectiveness calculations include only appropriate cost items and factors, including a 30-year lifetime and 3.25% bank prime interest rate. This supplemental SIP will provide additional opportunity for public comment on the four-factor analyses for Foley Mill and Panama City Mill and other items included in the supplemental SIP.

Regarding WestRock Fernandina Beach, the Department will address the analysis of the burning of 100% natural gas as a control measure for Power Boiler No. 7 in the supplemental SIP, which will provide additional opportunity for public comment on the analysis.

Regarding setting the RPGs, the Department has taken the conservative approach of using the 2028 visibility projections as the RPGs, which do not include any four-factor reasonable progress controls, making the RPGs more conservative.

The Department received comments regarding the permit conditions proposed to be incorporated into the SIP. Commenters state that the SIP does not contain provisions to ensure emissions limitations are permanent, enforceable, and apply at all times. Specifically, the Department received comments stating that there is a lack of record keeping and reporting requirements; inadequacies in provisions relying on the MATS rule for compliance; lack of EPA-approved methods for continuous emission monitoring and for determining compliance; references to two permit applications that should be removed; conditions that exclude periods of startup, shutdown, and malfunction; lack of compliance dates; and that the SIP does not allow for use of any credible evidence. Commenters stated that the Department must use its authority under state law and require emission limitations in the SIP that result in reductions of visibility impairing pollutants. Commenters also stated that the Department is incorporating permit limits into the SIP from permits that have either have expired or will expire soon.

Response: Commenters state that the proposed SIP provisions for Duke Crystal River, JEA Northside, Nutrien White Springs, Seminole Generating Station, TECO Big Bend, and WestRock Fernandina Beach lack record keeping and reporting requirements. The permit

conditions for WestRock Fernandina Beach will be updated to include record keeping and reporting requirements sufficient for the Department to monitor and determine the facility's compliance, and this will be included in the supplemental SIP that the Department commits to submitting. For the other facilities listed, each facility's Title V permit contains recordkeeping and reporting requirements sufficient for the Department to monitor and determine the facility's compliance with the permit conditions.

Commenters state that provisions relying on the MATS rule (40 CFR 63, Subpart UUUUU) for compliance are inadequate. The Department disagrees as the MATS rule (which is an applicable requirement for Duke Crystal River Units 4 and 5, Seminole Generating Station Units 1 and 2, and TECO Big Bend Units 3 and 4) requires that the SO₂ CEMS being used for compliance with the Regional Haze SIP limits meet the requirements of 40 CFR Part 60 and Part 75. *See* Table 5 to Subpart UUUUU of Part 63—Performance Testing Requirements.

Commenters state that Florida's proposed SIP does not include specific methodology and requirements in accordance with EPA's regulations for SIPs that rely on continuous emission monitoring (40 CFR 51.214). The Department disagrees with this comment as all emissions limits that are being incorporated into Florida SIP require continuous emission monitoring through various federal programs or other provisions in Florida's SIP.

Commenters state that the proposed SIP conditions for Duke Crystal River Citrus Combined Cycle contain non-EPA methods (ASTM) and that Florida must use EPA-approved methods. The Department disagrees with this comment as the firing of pipeline quality natural gas with no more than 2 grains of sulfur per 100 standard cubic feet is an enforceable emission limitation that requires use of ASTM methods that are incorporated in 40 CFR Part 60, Subpart KKKK and 40 CFR 60.17.

Commenters state that Florida proposes to include two entire permit applications as part of the enforceable requirements (JEA Northside Unit 3 and WestRock Fernandina Beach Mill). The Department is not proposing to incorporate the permit applications, only the permit conditions from the final permits which are included in the Materials to be Incorporated into the SIP section.

Commenters state that the proposed SIP provisions for JEA Northside Units 1 and 2 must not exclude periods of startup, shutdown, and malfunction. JEA Northside Units 1 and 2 are also subject to the MATS rule which includes continuous SO₂ emission limits and work practice standards that are included in the facility's Title V permit. Thus, when combining the SIP limits and MATS limits, this facility is subject to continuous emission limiting standards for SO₂.

Commenters state that the proposed SIP provisions for Nutrien White Springs must not exclude periods of startup, shutdown, and malfunction. The Department disagrees that the proposed SIP limits exclude periods of startup, shutdown, and malfunction as the SIP limits contain a short-term (three-hour) average that excludes periods of startup, shutdown, and malfunction and a long-term (annual) average that includes periods of startup, shutdown, and malfunction. Therefore, the proposed SIP limits for PCS White Springs cover all modes of operation, including periods of startup, shutdown, and malfunction.

Commenters also stated that the permit for Nutrien White Springs includes language about what was “effective” and “enforceable” at the time the permit was issued. The language in the permit was merely noting that the limits applicable to SAP F were already effective and enforceable through the consent order at the time the permit was issued and the limits applicable to SAP E were to become effective either January 1, 2020 or upon production exceeding 2,500 TPD, whichever is earlier. Presently, all limits applicable to SAPs E and F are effective and enforceable; the construction permit just noted the historical compliance timeframes that were applicable in the consent order.

Commenters state that the proposed SIP does not specify compliance dates. The facilities are required to comply with the permit conditions upon issuance of the final permit. Upon EPA’s final approval to incorporate the specific permit conditions into the SIP, these SIP limits will be permanent and enforceable by EPA via Florida’s SIP.

Commenters state that Florida must amend the SIP to allow for use of any credible evidence (40 CFR 51.212). EPA has determined previously, in its proposed approvals of various infrastructure SIP submittals, that Florida’s SIP allows for the use of credible evidence. EPA has not identified any provision in the SIP preventing the use of credible evidence; e.g., see 81 Fed. Reg. 50,416 (August 1, 2016) and 84 Fed. Reg. 68,863 (December 17, 2019).

Commenters state that the Department must use its authority under state law and require emission limitations in the SIP that result in reductions of visibility impairing pollutants at each reasonable progress source, and the Department should not rely only on existing emissions limitations. However, the regional haze rule only requires the Department to include emissions limitations in the SIP that are necessary for reasonable progress, which may include existing emissions limitations. The Department’s SIP meets this requirement.

Regarding air construction permit expiration, the air construction permit conditions for all facilities listed in the Materials to be Incorporated into the SIP section have already been incorporated into each facility’s respective Title V permit, except for the permit limits for JEA Northside Unit 3 and for WestRock Fernandina Beach Power Boiler No. 7. The relevant permit conditions for these two units will be incorporated into the facility’s respective Title V

permits before the air construction permits expire. Under Florida's New Source Review and Title V permitting programs, conditions contained within air construction permits are applicable requirements that extend beyond the expiration of the actual air construction permit. The Department's rules require air construction permits to be incorporated into a facility's Title V permit in a timely manner after demonstrating initial compliance with the conditions therein.

The Department received comments regarding coal retirements and emission reductions. Commenters state that the Department should not rely on coal retirements or emission reductions unless they are codified in the SIP, and that sources with announced retirements must either have practically enforceable provisions in the SIP reflecting permanent closure or must complete a four-factor analysis – specifically, CD McIntosh Unit 3, TECO Big Bend Units 1-3, Duke Crystal River Units 1 and 2, Seminole Generating Station Unit 1 or Unit 2, SJRPP Boilers 1 and 2, and Mosaic Plant City. Commenters also stated that the Department should not allow OUC Stanton to burn coal beyond 2027, and should restrict coal at Deerhaven Generating Station. Commenters state that even if the Department includes an enforceable SIP commitment for these specific retirements, the Department should consider cost-effective controls for these units during the intervening years.

Response: As of 2020, when the Department was finalizing the list of selected sources, TECO Big Bend Unit 1, Duke Crystal River 1 and 2, SJRPP Boilers 1 and 2, and Mosaic Plant City SAPs were already permanently shut down and these units have removed from the Title V operating permits for these facilities. These units may not be restarted and any new units at these facilities would be subject to New Source Review, which includes a requirement to analyze visibility impacts in Class I areas. The remaining facilities and units listed are discussed below:

- **CD McIntosh** – Unit 3 at CD McIntosh, at the time of source selection, was still operating and was required to meet the MATS SO₂ limit; therefore, Unit 3 was “effectively-controlled.” The Department did not identify any additional measures as necessary for reasonable progress. However, the facility chose to retire Unit 3 in April 2021; therefore, it was no longer necessary to incorporate the SO₂ emissions limitation into the SIP because the unit was permanently shut down. Unit retirement was not identified as necessary for reasonable progress; therefore, unit retirement does not need to be incorporated into the SIP.
- **TECO Big Bend** – Unit 2 was screened out due to very low SO₂ emissions. Unit 3 was selected for analysis and the MATS limit was identified as necessary for reasonable progress, a limit that will be incorporated into the SIP. Unit retirement or switching to natural gas firing only was not identified as necessary for reasonable progress; therefore, unit retirement or fuel switching do not need to be incorporated into the SIP.

- **Seminole Generating Station** – Units 1 and 2 were both selected for analysis, and for each, the MATS limit was identified as necessary for reasonable progress. Unit retirement was not identified as necessary for reasonable progress; therefore, unit retirement does not need to be incorporated into the SIP. At the time of source selection, Seminole Generating Station was already authorized by permit to replace either Unit 1 or Unit 2 with a new natural gas combined cycle unit. The permit requires that within 300 days after the initial fuel firing in either combustion turbine, either Unit 1 or Unit 2 must be permanently removed from service. Seminole Generating Station began construction on the new NGCC unit in 2020 and the initial fuel firing is expected to occur in early 2022. Therefore, either Unit 1 or Unit 2 is expected to permanently shutdown by early 2023.
- **Deerhaven Generating Station** – This facility was screened out through the AOI analysis due to its low impact on visibility impairment in Class I areas. The Department discussed the fuel co-firing project at Deerhaven Generating Station for informational purposes only to note further emissions decreases that may occur by 2028.
- **OUC Stanton** - This facility was screened out through the AOI analysis due to its low impact on visibility impairment in Class I areas. The Department discussed OUC Stanton’s announcement that it will end coal-firing by 2028 for informational purposes only to note further emissions decreases that may occur by 2028.

The future operations of these facilities were noted for informational purposes as part of Florida’s requirements for developing a long-term strategy. Consideration of source retirement and replacement schedules is required by 40 CFR 51.308(f)(2)(iv)(C) and were not relied upon as part of Florida’s emission reduction measures that are necessary to make reasonable progress (by considering the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of any potentially affected anthropogenic source of visibility impairment). *See* 40 CFR 51.308(f)(2)(i).

The Department received comments regarding the Clean Air Act’s anti-backsliding provisions. Commenters state that the SIP violates the Clean Air Act’s anti-backsliding requirement because the Department proposes to remove BART and reasonable progress emissions limitation provisions from the SIP without replacing them with equivalent or more stringent requirements. Commenters state that the Department does not provide evidence of the permanent shutdowns and does not make these retirements enforceable in the SIP; therefore, the Department must include evidence in the proposed SIP to support its assertion that the sources have shut down and can no longer operate and include enforceable provisions accordingly directly in the SIP.

Response: The BART and reasonable progress units that have permanently shutdown are no longer allowed to operate under any Title V permit. If any of the BART or reasonable

progress units were to restart operations at these sites, the new emissions units would be treated as new sources for New Source Performance Standard (NSPS) purposes and as new sources under the Department's New Source Review (NSR) program. The NSR program requires new sources to demonstrate that they will not cause or contribute to an air quality problem and requires an analysis of visibility impacts in Class I areas to ensure the project will not significantly contribute to visibility impairment in any Class I area. The Prevention of Significant Deterioration (PSD) program also requires new sources to apply best available control technology (BACT).

The Department is providing documentation of the permanent shutdown of the BART and reasonable progress units in Appendix G-5.

The Department received comments regarding consultation with other states. Commenters stated that Florida did not respond to the MANE-VU Asks and that Florida should implement MANE-VU Asks 1 and 4 in Florida. Commenters stated that the Department should ask that Alabama include practically enforceable emission limitations in its regional haze SIP for Sanders Lead and noted issues with Air Permit No. X034 issued by Alabama Department of Environmental Management to the Sanders Lead facility. Commenters state that Florida should include Georgia's response to its request in its SIP.

Response: The Department's response to the MANE-VU Asks is included in Appendix F-4c and summarized in Section 10.3 of the Regional Haze Plan. As discussed in Section 10.3, the Department disagrees that Florida contributes significantly to any MANE-VU Class I area; therefore, the Department did not implement the MANE-VU's Asks in Florida.

Alabama provided updated emissions from the Sanders Lead facility to confirm that based on recent actual emissions reflective of the source's current and expected future operations (346 tons per year in 2020, the first full year of scrubber operation), the facility has an insignificant impact on visibility impairment in Florida Class I areas, as discussed in Alabama's letter to Florida in Appendix F-1c. Therefore, this facility was screened out from the source selection process and it was not necessary for Florida to request Alabama to perform any further analysis of this source with respect to Florida's Class I areas.

Emissions from Sanders Lead Facility

Year	SO₂ (tons per year)
2009	8,352
2010	9,243
2011	7,951
2012	7,624
2013	7,702
2014	7,456
2015	7,897
2016	8,100
2017	8,020
2018	8,493
2019	5,962
2020	346

Florida has not yet received a response from Georgia with respect to our consultation regarding Plant Bowen. Florida does expect that Georgia will address Florida’s consultation request in Georgia’s Regional Haze SIP, when it is submitted to EPA.

The Department received additional comments regarding 2028 emissions. Commenters state that the SIP lacks analysis for 2028 emissions inventory projections and future source development. Commenters also state that the Department does not explain or justify the decreases in projected 2028 emissions for the Foley Mill, Breitburn Gas Treating facility, Mosaic South Pierce, Monarch Hill, and Gulf Clean Energy Center.

Response: Regarding analysis of emissions inventory projections and future source development, the source selection and analysis were based on 2028 emissions; therefore, any future source development and subsequent emissions increases or decreases are already taken into account in the modeling and source selection process. Emissions for 2028 were developed considering growth and known or estimated emissions changes due to existing regulations, as described in Appendix B-2a. Section 7.2.4 of the Regional Haze Plan shows the change in emissions by source category between the baseline year of 2011 and projected 2028 emissions.

Regarding the decreases in 2028 emissions for the five listed sources, in Section 7.6.5 of the Regional Haze Plan, the Department included a comparison of the 2028 projected emission to recent actual emissions (2017-2019) and the Department noted differences between 2028 projected emissions and 2017, 2018, and 2019 emissions of 1,000 tons per year or more. The Department notes differences for the five additional facilities below:

- **Foley Mill** – Projected 2028 emissions were 1,520 tons per year, similar to emissions in the base year of 2011. However, actual emissions in recent years have averaged approximately 2,000 tons per year. Notwithstanding the recent increases in SO₂ emissions, the Foley Mill was selected to complete a four-factor analysis. The Department is still in the process of reviewing the Foley Mill’s four-factor analysis, which did use more recent emissions for purposes of determining cost effectiveness. The four-factor analysis for Foley Mill will be addressed in the supplemental SIP.
- **Breitburn** – Projected 2028 emissions were 687 tons per year, similar to the 2011 base year emissions. However, emissions in recent years have been higher, with maximum SO₂ emissions of 1,487 tons per year in 2017. This facility’s maximum AOI impact was 0.29% at St. Marks. Using recent actual emissions in the AOI analysis would not change the Department’s conclusion to not request that Breitburn complete a source-specific reasonable progress analysis because the maximum AOI impact would be 0.63%, still well below the 5% AOI threshold.
- **Mosaic South Pierce** – Projected 2028 emissions were 1,553 tons of SO₂ per year, which is similar to emissions in 2016 and 2017; however in 2018 and 2019, the SAPs have produced more sulfuric acid and therefore emitted more SO₂, with maximum emissions in 2018 of 2,248 tons per year. Although SO₂ emissions have increased beyond the 1,553 tons per year the Department used in the 2028 projection, the Department does expect emissions from this facility to be reduced in the future as Mosaic is in the process of installing new SO₂ controls at South Pierce similar to the controls installed at Mosaic Bartow and New Wales (i.e., cesium-promoted catalysts). Implementation of these controls on one of the two SAPs at South Pierce has already reduced emissions in 2020 (1,739 tons of SO₂). Once the second SAP has completed the cesium-promoted catalyst upgrade, SO₂ emissions will be within the range of the Department’s 2028 projections.
- **Monarch Hill** – Projected 2028 emissions were 175 tons of SO₂ per year, the same as the 2011 base year emissions. However, emissions in recent years have been higher, with maximum SO₂ emissions of 654 tons per year in 2018. The increase in SO₂ emissions from the Monarch Hill landfill are attributable to increases in hydrogen sulfide (H₂S) gas being generated and subsequently collected by the landfill gas collection and control system. The increased generation of H₂S is attributable to disposal of wallboard after hurricanes. The Department does expect SO₂ emissions from the Monarch Hill landfill to decrease in the future, but whether or not this decrease occurs, this facility will be evaluated during the next Regional Haze implementation period.
- **Gulf Clean Energy Center** – Projected 2028 emissions are 572 tpy SO₂. Although recent SO₂ emissions have been as high as 1,128 tpy in 2019, the facility was still firing coal at that time. This facility’s permit no longer allows the firing of coal in any of the units and only fires natural gas and limited amounts of fuel oil. Therefore, future emissions are likely to be well below the conservative projection of 572 tpy of SO₂.

The Department received comments regarding EPA regional haze guidance memoranda, including that states should not follow the August 2019 guidance, and that the Department should carefully review and consider the July 2021 guidance and adjust the SIP accordingly.

Response: The Department has reviewed and considered all final EPA regional haze guidance, including the August 2019 guidance and July 2021 guidance, in developing the final SIP. The Department has made efforts, including considerable consultation with EPA, to ensure that the SIP meets the requirements of the regional haze rule.

The Department received comments regarding modeling. Commenters state that the VISTAS modeling inaccurately reflects sulfate concentrations in the Southeast U.S. Commenters state that the modeling uses EGU emissions profiles from 2011 to project the EGU emissions in 2028, inaccurately assuming that EGUs will operate in 2028 as they did in 2011.

Response: Regarding sulfate concentrations in the VISTAS modeling, as discussed in Section 6.5 of the Regional Haze Plan, although model performance for sulfate at each Class I area is biased low on the 20% most-impaired days, the model performance statistics for sulfate are reasonable for regulatory modeling. Additionally, the future year sulfate concentrations are not based on the absolute modeled values, but instead the model is applied in a relative sense through calculation of relative response factors (RRFs). The RRF is the relative change in sulfates between the base year modeled value and future year modeled value. The future year sulfate concentrations are then estimated by multiplying the base year actual monitored value by the RRF. Factors causing bias in the base case will also affect the future case; therefore, using the modeling in a relative sense resolves any problems posed by the underprediction of sulfates, and will not lead to an under-estimation of source contributions.

Regarding the EGU emission profiles, as discussed in Appendix B-2b, the VISTAS approach of maintaining a temporal pattern in 2028 that is consistent with the base year (2011) prevents fabricated emissions increases or decreases between the two years simply as a result of the temporal profile. This is the same approach that EPA uses to project 2028 EGU emissions. In addition, the Department reviewed and updated EGU 2028 emissions using the best available information on expected future operations. The Department explains large differences between recent actual emissions and projected 2028 emissions in Section 7.6.5 of the Regional Haze Plan.