

Chapter 11: Long-Term Strategy

11.1 Long-term Strategy Requirements

40 CFR section 51.308(d)(3) requires Louisiana to submit a long-term strategy that addresses regional haze visibility impairment for each mandatory Class I Federal area within and outside the State which may be affected by emissions from within the State. The long-term strategy must include enforceable emissions limitations, compliance schedules, permit applications and other measures necessary to achieve the reasonable progress goals established by States where the Class I areas are located. This chapter describes how Louisiana meets the long-term strategy requirements.

11.2 Consultation

40 CFR section 51.308(d)(3)(i) requires Louisiana to consult with other States to develop coordinated emission strategies. This requirement applies both where emissions from the State are reasonably anticipated to contribute to visibility impairment in Class I areas outside the State and when emissions from other States are reasonably anticipated to contribute to visibility impairment in Class I areas within the State.

Louisiana consulted with other States/Tribes in the CENRAP and VISTAS RPOs on processes that developed technical information necessary for development of coordinated strategies for the Breton Class I area. In addition Louisiana participated in discussions focused on Class I areas in Oklahoma including the Wichita Mountains Wilderness Area, Arkansas and Missouri, and Texas. Louisiana will continue this consulting process in the future. Louisiana also coordinated with CENRAP and other RPOs to develop a weight of evidence analysis that was used to develop the state's long-term strategy (Appendix H). Strategy development considered the impacts of the State's emissions on Class I areas within and outside the State. In addition, Louisiana is required to consult with the FLM on any applications for any proposed new source or major modifications that may have an adverse impact on visibility in any Class I area (LAC 33:III.509.E.1)

Louisiana may be reasonably anticipated to contribute to the following Class I area:

1. Breton National Wilderness Area, Louisiana;
2. Caney Creek Wilderness Area, Arkansas.

11.3 Weight of Evidence

11.3.1 Basis for emission reduction obligations

40 CFR section 51.308(d)(3)(iii) requires Louisiana to document the technical basis for the State's apportionment of emission reductions necessary to meet reasonable progress goals in each Class I area affected by Louisiana's emissions.

Louisiana relied on technical analyses developed by CENRAP and VISTAS to demonstrate that the State's emission reductions, when coordinated with those of other states can be sufficient to achieve 2018 RPGs in Class I areas affected by these states.

The demonstration of attainment of RPGs relies on the analysis of monitored and modeled data in a weight of evidence analysis to determine whether visibility is improved on days when it is usually poor and does not deteriorate on days when it is usually good. Current visibility is estimated from monitored components of PM 2.5 and coarse mass. Models are used in a relative sense to estimate how current concentrations respond to emission reduction measures. Data analysis is used to identify source categories and regions. Current concentrations of particulate matter components are adjusted by the relative modeled response to estimate concentrations at the end of the first implementation period 2018. Future visibility is estimated from estimated component concentrations of PM2.5 and coarse particulate matter at the end of the first implementation period. The difference between present visibility and future estimated visibility is compared with the RPG to determine if the goal is met.

11.3.2 Baseline Inventory

Louisiana 40 CFR section 51.308(d)(3)(iii) requires Louisiana to identify the baseline inventory on which the long-term strategy is based. Louisiana used the 2002 Base G CENRAP inventory as its baseline inventory (Appendix B).

11.4 Factors for State Consideration

40 CFR section 51.308(d)(3)(v) requires Louisiana to consider several factors in developing its long-term strategy. These factors include emission reductions from ongoing pollution control programs (40 CFR section 51.308(d)(3)(v)(A)). Louisiana considered the following ongoing programs in developing its long-term strategy:

- National VOC Emission Standards for Automobile Refinish Coatings (63 FR 48806)
- National VOC Emission Standards for Consumer Products (63 FR 48819)
- National VOC Emission Standards for Architectural Coatings (63 FR 48848)

- Tier 2 Motor Vehicle Emission Standards and Gasoline Sulfur Control Requirements (65 FR 6697)
- Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements (66 FR 5002)
- Control of Emissions from Nonroad Diesel Engines and Fuels (69 FR 38958)
- Clean Air Interstate Rule (70 FR 25162)
- Federal Consent Decrees
- 2008 8-hour Ozone Standard

Louisiana requires that any new major stationary source and/or major modification permit application impacting any Class I area will be consistent with making progress toward the national visibility goal of preventing any further impairment of visibility in any Class I area (LAC 33:II.504.E.5)

Louisiana is also required to consider measures to mitigate the impacts of construction activities. (40 CFR section 51.308(d)(3)(v)(B)). Louisiana may require visibility monitoring in any Class I area where preconstruction and post-construction of any new source or major modification may have an adverse impact on visibility in any Class I area (LAC 33:III.504.E.3.b). There has been a great deal of construction activities in southern Louisiana due to Hurricanes Katrina and Rita; however, there have been no measurable impacts on visibility from construction activities. Emergency Orders were issued that allowed for repair of facilities; however these orders stopped short of allowing complete replacement of emissions units. If new equipment was necessary owners/operators were required to go through the normal permitting process. Those facilities that were affected by the hurricanes were generally assigned a high priority for those permit actions.

Over the next 10 years, Louisiana will implement control measures that will address the newly promulgated ozone NAAQS of 0.075 parts per million (ppm). These control measures will include both VOC and NO_x emissions reduction strategies and may extend to major point sources, minor area sources and mobile sources. EPA has estimated that most nonattainment areas will be in compliance with the new NAAQS by 2020 using only the national measures; this is two years beyond the 2018 glide path milestone. However, the attainment dates for the Louisiana areas that will be submitting attainment demonstrations currently are 2013, with attainment deadlines between 2013 and 2016, two years prior to the 2018 revision. Louisiana believes that these control measures will do much to improve the visibility at Breton. The use of a multi-pollutant strategy can only benefit the area. Other reductions are discussed more fully in Chapter 10 of this document.

40 CFR section 51.308(d)(3)(v)(C) requires Louisiana to identify additional measures to meet RPGs when ongoing programs alone are not sufficient to meet the goals. Louisiana found that ongoing air pollution control programs could be sufficient to meet RPGs through 2018.

According to 40 CFR section 51.308(d)(3)(v)(D) Louisiana is required to consider source retirement and replacement schedules in developing RPGs. The statutory factor of the remaining useful life of the source is applicable only to those measures which would require retrofitting of control devices at existing sources. Louisiana's long-term strategy does not include the promulgation of new rules for visibility alone that would cause the retrofitting of control devices at this time. Louisiana is required to consider smoke management techniques for the purposes of agricultural and forestry management in developing RPG (40 CFR section 51.308(d)(3)(v)(E)). According to the Louisiana Environmental Quality Act (La. R.S. 30:2054(B)(2)), the Louisiana Department of Environmental Quality does not have the jurisdiction or authority to make any rule, regulation, recommendations, or determination with respect to the following:

- Burning of agricultural by-products in the field in connection with the planting, harvesting, or processing of agricultural products.
- Controlled burning of cotton gin agricultural wastes in connection with cotton gin operations.
- Controlled burning in connection with timber stand management.
- Controlled burning of pastureland or marshland in connection with trapping or livestock production.

Both the Louisiana Department of Agriculture and Forestry and the Louisiana State University Ag Center have Smoke Management Guidelines.

In addition, Louisiana is required to ensure that emission limitations and control measures used to meet RPGs are enforceable (40 CFR section 51.308(d)(3)(v)(F)) as well as the anticipated net effect on visibility due to projected changes in point, area, and mobile source emission over the period addressed by the long-term strategy according to 40 CFR section 51.308(d)(3)(v)(G).

11.5 Summary of Visibility Projections

CENRAP modeling analyses project Breton to be slightly above the glide slope for the 2018 milestone. These projections include not only Louisiana emissions, but those in the Area of Influence, namely Mississippi, Alabama, Florida and the Gulf of Mexico. Growth projections of emissions provided by CENRAP show increases in sulfates, however current actual emissions

for Louisiana, calculated in-house, show a decline. (See Appendix K.) Furthermore, the final glide slope modeling does not take into account the emission reductions that will be achieved through the Rhodia consent decree or any future marine vessel rule. Both will continue to introduce emission reductions of NO_x and SO₂ to the area, which when combined with CAIR, the petroleum refineries consent decrees, and other state rules, will show acceptable progress toward visibility projections.