ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 51

Requirements for Preparation, Adoption, and Submittal of Implementation Plans

CFR Correction

In Title 40 of the Code of Federal Regulations, Parts 50 to 51, revised as of July 1, 2010, on page 265, in § 51.166, paragraph (b)(49)(vi) is added to read as follows:

§ 51.166 Prevention of significant deterioration of air quality.

* * * * *

(b) * * *

(49) * * *

(vi) Particulate matter (PM) emissions, $PM_{2.5}$ emissions, and PM_{10} emissions shall include gaseous emissions from a source or activity which condense to form particulate matter at ambient temperatures. On or after January 1, 2011 (or any earlier date established in the upcoming rulemaking codifying test methods), such condensable particulate matter shall be accounted for in applicability determinations and in establishing emissions limitations for PM, $PM_{2.5}$ and PM_{10} in PSD permits. Compliance with emissions limitations for PM, $PM_{2.5}$ and PM_{10} issued prior to this date shall not be based on condensable particular matter unless required by the terms and conditions of the permit or the applicable implementation plan. Applicability determinations made prior to this date without accounting for condensable particular matter shall not be considered in violation of this section unless the applicable implementation plan required condensable particular matter to be included.

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[FR Doc. 2011–8334 Filed 4–5–11; 8:45 am]

BILLING CODE 1505–01–D

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R04–OAR–2005–AL–0002–201047; FRL–9290–3]

Approval and Promulgation of Implementation Plans: Alabama: Final Disapproval of Revisions to the Visible Emissions Rule

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: EPA is taking final action to amend an October 15, 2008, final rulemaking on two State Implementation Plan (SIP) revisions regarding the State of Alabama's rules for visible emissions from certain stationary sources. EPA has now determined upon reconsideration that Alabama's SIP revisions, dated September 11, 2003, and August 22, 2008, are not approvable pursuant to the Clean Air Act (CAA or Act) section 110(l). Accordingly, EPA is disapproving the two SIP revisions provided to EPA by the State of Alabama, through the Alabama Department of Environmental Management (ADEM), dated September 11, 2003, and August 22, 2008 (Submittals). No further action is required by Alabama because the SIP revisions were not required by the CAA. As a result of this action, Alabama's visible emissions rule that was in the SIP prior to the October 15, 2008, final action will be the current SIP-approved rule as of the effective date of this action. EPA urges Alabama to undertake rulemaking that will bring its State-effective rule into conformance with its SIP-approved rule.

DATES: *Effective Date:* This rule will be effective May 6, 2011.

ADDRESSES: EPA has established a docket for this action under Docket Identification No. EPA–R04–OAR–2005–AL–0002. All documents in the docket are listed on the *http://www.regulations.gov* index. Although listed in the index, some information is not 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 *http://www.regulations.gov* or in hard copy at the Regulatory Development Section, Air Planning Branch, Air, Pesticides and Toxics Management 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 to 4:30, excluding federal holidays.

FOR FURTHER INFORMATION CONTACT: Ms. Lynorae Benjamin, Chief, Regulatory Development Section, Air Planning Branch, Air, Pesticides and Toxics Management Division, Region 4, U.S. Environmental Protection Agency, 61 Forsyth Street, SW., Atlanta, Georgia 30303–8960. The telephone number is (404) 562–9040. Ms. Benjamin can also be reached via electronic mail at *benjamin.lynorae@epa.gov.*

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I. What is the background for this action?

This action follows three key EPA actions regarding Alabama's request for approval of the two visible emissions SIP revisions. The first was an October 15, 2008, final rule (73 FR 60957) approving revisions to the Alabama SIP embodied in two submittals dated September 11, 2003, and August 22, 2008 (Submittals). The second was an April 3, 2009, action granting a February 25, 2009, petition for reconsideration on the October 15, 2008, final action which had approved the SIP revisions. The third was an October 2, 2009, proposed rule (74 FR 50930) identifying two alternative options being considered by EPA as part of the reconsideration process (the alternative proposals were either to affirm the October 15, 2008, rulemaking, thereby approving Alabama's Submittals or to amend the October 15, 2008, rulemaking, thereby disapproving Alabama's Submittals). EPA has now determined that Alabama's Submittals are not approvable pursuant to CAA section 110(l). Detailed background information for this action is available in the proposed rulemaking published on October 2, 2009. 74 FR 50930.

In relevant but brief part, on September 11, 2003, ADEM submitted a voluntary [1] request for EPA approval of a SIP revision (2003 Submittal) containing proposed revisions to the existing EPA-approved visible emissions portion of the Alabama SIP, found at Alabama Administrative Code (AAC) 335–3–4–.01, "Visible Emissions," and pertaining to sources of particulate matter (PM) emissions.[2] In

[1] The request was "voluntary" because it was not specifically required by the CAA or its implementing regulations, rather, ADEM chose to revise its rules and submit the SIP revision.

[2] PM particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers are referred to as PM_{10}; PM particles with an aerodynamic diameter less than or equal to a

an action published on April 12, 2007 (72 FR 18428), EPA proposed to approve the 2003 Submittal contingent upon the State of Alabama submitting a revised SIP submittal addressing EPA's concerns regarding impacts of the rule changes on attainment of the National Ambient Air Quality Standards (NAAQS), as set forth in 72 FR 18428–18434. EPA's proposal notice explained that the State would have to provide EPA with a revised SIP submittal consistent with certain changes described by EPA in the April 12, 2007, notice of proposed rulemaking before EPA could approve the revisions. The proposal notice also described EPA's rationale for requesting the additional submittal. Specifically, EPA noted that the 2003 Submittal was not approvable because the revision "would allow a source to emit at a higher allowable average opacity percent level (as measured by a COMS—Continuous Opacity Monitoring System—in six-minute increments) on a quarterly basis as well as allowing higher short term excursions than the current approved SIP allows." 72 FR at 18430/3. EPA further explained that "in the absence of a supporting demonstration of compliance with the CAA requirements from the State, we believe that the 2003 SIP submittal is not approvable as submitted." *Id.*

On August 22, 2008, Alabama, through ADEM, provided EPA with an amended submittal (2008 Submittal). After further evaluation, EPA determined that it could approve the Submittals (i.e., the 2003 Submittal as amended by the 2008 Submittal). On October 15, 2008, EPA took final action to incorporate into the Alabama SIP, the revisions to Alabama's visible emissions rule included in the Submittals. 73 FR 60957. EPA's rationale for its approval is discussed in that final action. In order to approve the Submittals in 2008, EPA relied on two main findings: "(1) The revision would not increase the allowable average opacity levels; and (2) the relationship between changes in opacity and increases or decreases in ambient $PM_{2.5}$ levels cannot be quantified readily for the sources subject to this SIP revision, and is particularly uncertain for short-term analyses." 73 FR 60959/2. The October 15, 2008, final action was effective on November 14, 2008 (by its terms, the Alabama rule change became effective, and thus applicable to sources, on May 14, 2009).

Following the October 2008 final action, EPA received two petitions for reconsideration submitted on behalf of the Alabama Environmental Council (AEC) and other parties (Petitioners), one on December 12, 2008, and one on February 25, 2009. EPA considered these petitions under section 553(e) of the Administrative Procedures Act (APA) and the CAA. The first petition for reconsideration raised procedural and substantive concerns with EPA's October 15, 2008, final action.[3] EPA denied the December 12, 2008, petition via letter on January 15, 2009. The second petition incorporated by reference the issues raised in the first petition and also identified additional substantive and procedural concerns not included in the first petition.[4] EPA granted the Petitioners' second request for reconsideration of the October 15, 2008, final action via letter on April 3, 2009. In that letter, EPA explained that it anticipated initiating a new rulemaking process to provide additional opportunities for public comment.

On December 12, 2008, Petitioners filed a lawsuit in the Eleventh Circuit Court of Appeals challenging EPA's October 15, 2008, final action. EPA and the appellants subsequently jointly stayed the litigation pending the conclusion of EPA's reconsideration process. EPA's October 2, 2009, proposed rule was EPA's initiation of a new rulemaking process to reconsider its prior action on the Submittals. In that proposal, EPA articulated two alternative options and sought public comment on both. One option was to affirm the October 15, 2008, final action (thus approving the Submittals) and the other was to amend the October 15, 2008, final action (thus disapproving the Submittals). The bases for each alternative were described in detail in the October 2, 2009, proposed rulemaking. 74 FR at 50932–50934. The responses to the comments EPA received on the October 2, 2009, proposed action are summarized in section III of this rulemaking.

II. What action is EPA taking and what is EPA's rationale for disapproving the submittals?

EPA is now taking final action to amend its October 15, 2008, final action and to disapprove Alabama's 2003 and 2008 SIP Submittals regarding its visible emissions rule. As EPA explained in its October 2, 2009, proposed rulemaking, the primary issue for resolution is whether approval of the Submittals is consistent with the requirements of the CAA, specifically, the requirements of section 110(l). If the approval were appropriate under section 110(l), EPA would need to consider whether it would also meet the requirements of section 193, given that the visible emissions rules in question were in effect prior to November 15, 1990, and apply to some sources that are located in areas designated nonattainment for one or more NAAQS. In light of the fact that this SIP revision would apply statewide, including nonattainment areas, EPA has concluded that it cannot approve the SIP revision under section 110(l) if it would worsen air quality by allowing increased emissions of criteria pollutants or precursors to such criteria pollutants. In particular, if the revision would result in increases in emissions of pollutants for which an area is designated nonattainment, specifically $PM_{2.5}$, EPA considers that allowing increased emissions of such pollutants would interfere with the area's ability to attain the NAAQS.[5] *See, e.g.,* 70 FR 53

nominal 2.5 micrometers are referred to as $PM_{2.5}$. As a general matter, the term "PM" refers to particulate matter of unspecified size range and includes both PM_{10} and $PM_{2.5}$.

[3] The Petitioners raised eight main issues: (1) EPA was arbitrary and capricious in failing to reopen the public comment period when ADEM made changes to the rule after the close of the public comment period; (2) EPA was arbitrary and capricious in deviating from rulemaking policy regarding documentation of post-comment period meetings between EPA and ADEM and failing to meet with Petitioners in addition to ADEM; (3) EPA was arbitrary and capricious in proposing to approve a SIP revision before the rule had even been developed at the State level; (4) EPA failed to comply with rulemaking procedures by failing to complete the docket prior to finalizing the rulemaking package; (5) the rule should not have been approved because it does not represent reasonably available control technology requirements for SIPs because Alabama has nonattainment areas for $PM_{2.5}$; (6) EPA's approval of the rule is not consistent with either Section 110(l) or 193 of the CAA due to likely increases in short-term particulate matter emissions; (7) EPA's final action is not consistent with EPA policies on excess emissions and director's discretion; and (8) the final rule does not comply with 40 CFR Part 51 because it is not an "appropriate" visible emission limitation.

[4] The Petitioners specifically highlighted two new issues: (1) The DC Circuit's decision in *Sierra Club* v. *EPA,* 551 F.3d 1019 (D.C. Cir. 2008) (SSM MACT decision) made the Agency's action on the SIP revision untenable; and (2) new documents added to the docket show that throughout the consideration of this matter, EPA acted in an arbitrary and duplicitous manner in failing to re-notice the rulemaking for public comment given the differences between what EPA required of Alabama in the April 12, 2007, proposal and what Alabama actually submitted for approval in its August 22, 2008, submittal.

[5] With respect to attainment areas, section 110(l) requires that an approvable SIP revision not interfere with maintenance of the NAAQS or any other requirement of the CAA. In some circumstances, allowing increases in criteria pollutants may not interfere with maintenance of the NAAQS. EPA has not analyzed whether this SIP revision would be approvable with respect to attainment areas only because the Submittals included rules that applied throughout Alabama, which includes both attainment and nonattainment

Continued

(January 3, 2005); 70 FR 28429 (May 18, 2005) (previous rulemaking actions addressing section 110(l)).

In this particular circumstance, the analysis of whether the Submittals satisfy the CAA is made more difficult by the uncertainty in the precise relationship between the opacity of a stack emission stream and the mass of PM in the same emission stream at the affected sources. After consideration of all the issues raised by the Petitioners in their February 2009 petition for reconsideration, as well as comments received on the October 2, 2009, proposed rulemaking from many industry groups, individual companies, state agencies, and other non-governmental organizations, EPA has concluded that disapproving the 2003 and 2008 Submittals results in the interpretation of the CAA that is most consistent with the plain text and legislative history of the CAA, as well as the air quality goals set forth in the CAA. What follows is EPA's explanation of its analysis, which involves a discussion of the following: (1) The role of visible emissions in NAAQS attainment and maintenance; (2) the history of Alabama's visible emissions rule; (3) consideration of CAA section 110(l); (4) comparison of the original rule to the revised SIP-approved rule; (5) the role of uncertainty in EPA's analysis; and (6) the types of information that would be particularly useful in developing a visible emissions SIP revision.

1. Role of Visible Emissions in NAAQS Attainment and Maintenance

Opacity may be defined as the degree to which emissions reduce the transmission of light and obscure the view of an object in the background. 40 CFR 60.2. Opacity is important because it provides information regarding pollutants visible to the eye leaving an emissions source. In general, the more that opaque particles pass through an emissions point, the more light will be blocked, thus increasing the opacity percentage. However, variables such as the size, number, and composition of the particles in the emissions can result in variations in the percentage of opacity.

Historically, visible emissions have been an important tool for implementation of PM NAAQS and, in particular, for the implementation and enforcement of PM limits on sources to help attain the NAAQS. Visible emissions have been a useful tool to indicate overall operation and maintenance (O & M) of a facility and its emissions control devices even before modern instruments that measure PM on a direct, continuous basis existed. The observation of greater than normal visible emissions, particularly on a recurring basis, has served as an indication that incomplete combustion or other changes to the process and/or the control device had or were occurring; such changes frequently led to increased PM emissions. Although opacity is not a criteria pollutant, opacity standards continue to be used as an indicator of the effectiveness of emission controls for PM emissions, or to assist with implementation and enforcement of PM emission standards for purposes of attaining PM NAAQS. Opacity measurements can serve as an indicator of a well-maintained, well-operated source and that such sources should be able to achieve visible emissions that comply with opacity limits. For example, data submitted by one commenter show routine source operation with opacity of about five percent.[6] Conversely, visible emissions at much higher percentages (such as those allowed by Alabama's revised rules), particularly on a recurring basis, may indicate that a source is in violation of applicable SIP or permit mass limits as well.

Many commenters agreed that the precise relationship between opacity and PM emissions was uncertain. Despite this uncertainty, there is a general relationship between opacity and particulate matter mass emissions. As a result, increases in opacity can be indicative of changes in emissions control device performance or source operation, which in turn can lead to increases in mass emissions.

Furthermore, based on the information contained in the record for this action and a general lack of opacity and corresponding PM emissions data received to date, it is apparent that the mass of emissions based on short-term increases in opacity cannot be quantified readily for each of the 19 sources affected by the SIP revisions in the Alabama Submittals.[7] There are several contributors to the uncertainties associated with relating mass emissions to increases in opacity, including: (1) Differences between combustion technology characteristics and fuel components; (2) differences in control technology types, temperatures at which they operate, and load characteristics; (3) the recognition that both opacity and mass emissions are subject to significant variability over short periods of time and fluctuations such that one may act independently of the other; and (4) differences between the mass of particles that exists at the point of opacity measurement by the COMS (e.g., in the stack) and the direct $PM_{2.5}$ that forms immediately upon exiting the stack (that are related to fuel components more than to control technology).

2. History of Alabama's Visible Emissions Rule

EPA first approved Alabama's visible emissions rules into the Alabama SIP in 1972. 37 FR 10842, 10847 (May 31, 1972). The State submitted the visible emissions rules as part of its SIP for attainment and maintenance of the total suspended particulates (TSP) NAAQS (the predecessor to the PM NAAQS). The State has revised these rules three times in support of those goals.

Historically, Alabama has had areas with attainment problems for the various PM NAAQS. Originally, EPA designated some areas in Alabama as nonattainment for the TSP NAAQS. In 1987, EPA replaced the TSP NAAQS with the PM_{10} NAAQS, and all areas of Alabama were designated as attainment for those NAAQS. 56 FR 11101 and 58 FR 67734. All areas of Alabama remain designated attainment for the PM_{10} NAAQS. In 1997, EPA promulgated new annual and 24-hour particulate matter NAAQS, using $PM_{2.5}$ as the indicator. Effective April 5, 2005, EPA designated portions of Alabama, in the Birmingham and Chattanooga areas, as nonattainment for the 1997 $PM_{2.5}$ NAAQS. 70 FR 944. In 2006, EPA promulgated new $PM_{2.5}$ NAAQS, significantly tightening the 24-hour standards. Effective December 14, 2009, the Birmingham area was designated nonattainment for the 24-hour $PM_{2.5}$

areas, and the State did not make a showing that emissions from such sources would not interfere with maintenance of the NAAQS in attainment areas and with attainment of the NAAQS in nearby nonattainment areas. Similarly, EPA is not basing this decision on section 193 because the Submittals are not approvable under section 110(l); however, section 193 would have to be addressed before EPA could consider approval of the revisions.

[6] Alabama Power Company in Attachment T from the docket shows that over a three-year period its units did not exceed 5 percent opacity for 55.4 percent of the operating time, 10 percent opacity for 89 percent of the operating time, and 15 percent opacity for 97.6 percent of the operating time. In addition, the U.S. District Court for the Northern District of Alabama found in 2009 that at TVA's Plant Colbert, Units 1–4 typical baseline opacity measured about 5–8 percent during normal unit operation, and Unit 5 was projected to operate below 5 percent opacity even with a partially malfunctioning control device and below 10 percent "under extreme conditions that are unlikely to ever occur." *Sierra Club* v. *TVA,* 592 F. Supp. 2d 1357, 1367 (N.D. AL 2009).

[7] EPA specifically requested that commenters provide any available concurrent data showing the PM mass emissions and opacity for sources affected by the SIP revision at issue, but no commenter supplied this information. 74 FR 50934.

NAAQS, as revised in 2006. The Birmingham area remains designated as nonattainment for both the 2006 24-hour and 1997 annual $PM_{2.5}$ NAAQS. Chattanooga remains designated as nonattainment for the 1997 annual $PM_{2.5}$ NAAQS. Alabama's visible emissions rules continue to be a part of the Alabama SIP for attainment and maintenance of the PM NAAQS.

The SIP revision at issue affects the applicable visible emissions limits at approximately 19 stationary source facilities.[8] These 19 facilities include older coal-fired utilities, cement manufacturing facilities, and pulp and paper facilities, among others. Five of these facilities are located in or near nonattainment areas for the current $PM_{2.5}$ NAAQS. Specifically, Cheney Lime and Cement Company (Allgood), Ernest C. Gaston Electric Generating Plant (Alabama Power Company (APC)), and William Crawford Gorgas Electric Generating Plant (APC) are located within the Birmingham nonattainment area for the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS; Bowater Incorporated (Westover) is located near that area. In addition, Widows Creek Fossil Plant (Tennessee Valley Authority (TVA)) is located in the Chattanooga nonattainment area for the 1997 annual $PM_{2.5}$ NAAQS. Other facilities affected by these visible emissions rules may also impact these or other nonattainment areas.

The geographic location of affected sources covered by the visible emission rules in the EPA-approved SIP is relevant. This is because (as is discussed more fully below) EPA interprets section 110(l) to prohibit approval of SIP revisions that would increase emissions of pollutants for which an area is designated nonattainment, in the absence of offsetting emission reductions or an attainment demonstration addressing the rule changes at issue.

Opacity remains an important tool that states and EPA rely upon in establishing and enforcing PM-related standards for SIPs and other standards promulgated under the CAA (such as New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants). For example, opacity measurements can serve as an indicator of compliance with PM emissions between PM stack tests. The Submittals would provide sources with the flexibility to allow for visible emissions of up to 100 percent opacity (previous maximum opacity was 40 percent) for up to 2.4 consecutive hours per day[9] (previous consecutive maximum time for "exempt" periods per day was 6 minutes). This change, like all SIP revisions, must be consistent with section 110(l).

3. Consideration of CAA Section 110(l)[10]

In considering whether to approve the SIP revision at issue in this action, EPA must evaluate the changes embodied in the Submittals from the State in light of the requirements of section 110(l). Section 110(l) of the CAA provides, in relevant part, that:

> * * * The Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in section 7501 of this title), or any other applicable requirement of this chapter.

Congress added section 110(l) during the 1990 amendments to the CAA as support for the cornerstone of the SIP program in the CAA—the attainment and maintenance of the NAAQS. 101 Stat. 2404 (101 Pub. L. 549) (November 15, 1990). The provision was added as part of general revisions to section 110 to address EPA actions on SIP revisions, in part responding to court cases such as a Ninth Circuit Court of Appeals case, *Abramowitz* v. *EPA,* 832 F.2d 1071 (9th Cir. 1987), which discussed *Train* v. *NRDC,* 421 US 60 (1975) (both cases addressed EPA consideration of SIP revisions in light of some evaluation of whether the revision at issue would affect the NAAQS, *i.e.,* the impacts upon attainment or maintenance of the NAAQS). S. Rep. No. 101–228 (Report of the Committee on Environment and Public Works, United States Senate) (1990 CAA Legis. Hist. 8338, 8360–8363).

By its plain language, section 110(l) applies to every SIP revision submitted by a state. In evaluating whether a given SIP revision would interfere with attainment or maintenance, as required by section 110(l), EPA generally considers whether the SIP revision will allow for an increase in actual emissions into the air over what is allowed under the existing EPA-approved SIP. EPA has not required that a state produce a new complete attainment demonstration in order to make every revision to its SIP, provided that the status quo air quality is preserved. For the Submittals at issue in this action, EPA's view has been that if the SIP revision does not interfere with attainment or maintenance of the NAAQS, then it is unlikely to interfere with other applicable requirements. For example, if EPA concludes that emissions of PM allowed under the SIP are not increasing as a result of the SIP revision, then no additional control requirements would be required under section 193.

EPA has historically interpreted section 110(l) as requiring the Administrator to have some basis on which to conclude that a SIP revision would not interfere with attainment and maintenance of the NAAQS, or any other applicable requirement, before EPA could approve the SIP revision. EPA has regularly requested such information from the state to support a revision, particularly where there was some uncertainty regarding the impacts of the SIP revision. For example, in 2005, the State of North Carolina submitted a SIP revision that raised issues similar to the Alabama proposal. After considerable discussion between EPA and North Carolina about what revisions would be consistent with the requirements of section 110(l), the State submitted a SIP revision that addressed key issues. The rules in the revision retained the same number of total minutes and maximum levels of opacity allowed during excursion periods as under the prior EPA-approved SIP (*i.e.,* the four hourly six minute exceedance periods allowed under the existing North Carolina SIP could occur at any time, including consecutively, during a 24-hour period, but the allowable maximum opacity levels during these periods was not increased). In particular, EPA did not adopt an "average daily opacity" approach for North Carolina, which would have allowed extended periods of high opacity (in excess of 40 percent). *See* 70 FR 61556 (October 25, 2005). Similarly, EPA has proposed to disapprove a visible emissions SIP revision for Ohio in which that state sought to relax limitations on the number of occasions of excess opacity per hour, potentially allowing entire days with elevated opacity. The revision was submitted without a section 110(l) showing that the relaxation in opacity requirements would not reflect increased emissions

[8] At this time, it is EPA's understanding that the rules at issue apply to 19 facilities. Due to the applicability portions of the rule, the rule could apply to fewer facilities over time, but will not likely apply to any more.

[9] The Submittals allow up to 2.4 hours per day of operation at opacity levels in excess of 20 percent, provided that the total of such periods did not exceed 2 percent of operating time in a quarter, excluding periods of startup, shutdown, load change and rate change (or other short intermittent periods upon terms approved by ADEM's Director and included in a State-issued permit).

[10] EPA's evaluation of this SIP revision focused on section 110(l). If EPA were to find the revision approvable under section 110(l) it would have to consider other issues raised by the commenters, including whether it is approvable under section 193. Further, section 110(l) applies with respect to all NAAQS in effect, even where EPA has not yet made designations.

that would interfere with attainment and maintenance of the NAAQS or other requirements of the CAA. 70 FR 36901 (June 27, 2005).

EPA recognizes that 110(l) analyses are case-specific and that the scope and nature of the analysis will vary, depending on the factual details of the SIP revision at issue. *See, e.g., Hall* v. *EPA,* 273 F.3d 1146 (9th Cir. 2001) and *Kentucky Resources Council, Inc.,* v. *EPA,* 467 F.3d 986 (6th Cir. 2006); *see also,* 61 FR 16,050, 16,051 (April 11, 1996) (actions on which the *Kentucky Resources Council* case were based).[11] However, in the absence of a full attainment or maintenance demonstration, EPA has consistently required a sufficient basis in the record for concluding that the SIP revision would not interfere with attainment and maintenance of the NAAQS, or any other applicable CAA requirement.[12]

4. Comparison of the Original Rule to the Revised Rule

The substantive starting point for evaluating any SIP revision is to consider the differences between the current EPA-approved SIP rule and the revised rules being proposed by the state in the revision. Many of these differences were highlighted by the Petitioners and other parties during the public comment process on both the April 2007 proposal and the October 2, 2009, reconsideration proposal.

In this case, we began our analysis by comparing the rule in effect in the Alabama SIP at the time of EPA's April 2007 proposed action (hereafter "the previous rule") with the 2003 and 2008 Submittals (hereafter "the current rule"). Under both rules, the maximum number of exempt six-minute periods [13] allowed per day is the same—24; the maximum "allowable average quarterly opacity" [14] is approximately the same—22 percent under the previous rule, and 21.6 percent under the current rule; and the maximum "allowable average daily opacity" is the same under both rules—22 percent.[15] However, there are two significant differences [16] between the previous rule and the current rule. The first is that the current rule allows for maximum visible emissions of 100 percent opacity during the exempt periods, while the previous rule allowed for maximum visible emissions of only 40 percent opacity during such periods. AAC 335–3–4–.01(4) (current rule). The second is that the current rule allows exceedances of the 20 percent SIP standard for intervals of up to 2.4 consecutive hours (*i.e.,* up to 24 consecutive six-minute periods per calendar day), while the previous rule allowed exceedances of the 20 percent SIP standard for intervals of only 0.1 consecutive hours (*i.e.,* one six-minute period per hour).[17] Thus, the two key differences are that the current rule allows for opacity to increase up to 100 percent and allows up to 2.4 consecutive hours of opacity at that level (*i.e.,* the "bundling" of high opacity periods) per day. A critical question, therefore, is whether the significant increase of the maximum allowable opacity from 40 percent to 100 percent for such extended periods could result in more PM emissions were sources to take advantage of the changed limits.

In EPA's original approval notice, we adopted a limited analytical framework for addressing this question. We did not conclude that the proposed change in the SIP would not result in increased PM emissions. Rather, we established a new metric of "average daily opacity" (and "average quarterly opacity") and concluded that section 110(l) did not prohibit approval of a SIP revision that allowed significantly increased opacity levels for longer consecutive periods of time because the revision would not increase the allowable average opacity levels (on either a quarterly or daily basis). This analysis was focused on opacity and operational conditions regarding opacity as opposed to a focus on the relationship between opacity and PM mass emissions, in part because EPA did not have any useful source-specific data regarding the relationship between opacity and PM mass emissions at the affected facilities.

EPA also concluded that the relationship between changes in opacity and increases or decreases in ambient $PM_{2.5}$ levels could not be quantified readily for the sources subject to the SIP revision, and was particularly uncertain for short-term analyses and that the level of uncertainty about whether increased opacity levels allowed under the revision would allow increased mass emissions was sufficiently high that, in the absence of additional information to confirm a change in emissions one way or the other, section 110(l) did not prohibit approval of the SIP revision.

After reconsideration, however, EPA's position is that both of the findings that provided the foundation for its initial approval of the SIP revision were not strong enough to support approval under the CAA. EPA concludes that, as it was described in the Submittals, the concept of "average daily opacity" is not a useful tool for evaluating whether the Submittals are likely to maintain current air quality, particularly given the lack of other limitations on opacity exceedances in the Submittals. One of the primary purposes of opacity limits is to ensure that PM control devices are operating within normal parameters. Thus, larger and longer exceedances of an opacity limit (*e.g.,* 100 percent opacity or other high opacity levels over a longer period of time such as 2.4 consecutive hours), which may indicate problems with a control device or other significant changes in emissions, are more significant than shorter and smaller exceedances. Under the approach of the revised rule, a control device could temporarily shutdown or malfunction, potentially resulting in 100 percent opacity, for an hour or two and the source could still be in compliance with the 22 percent average daily limit. By contrast, an opacity limit that requires consistent compliance at 20 percent, and allows only one excursion of six minutes per hour to 40 percent opacity will limit larger and longer excursions.

In addition, an opacity limit that requires consistent compliance at 20 percent and allows only one excursion of six minutes per hour to 40 percent opacity helps ensure that sources and their control devices are properly maintained, operated, and controlled. In EPA's experience, a source that is properly maintained, operated and

[11] EPA's action today is consistent with both these 9th and 6th Circuit cases addressing 110(l).

[12] As is discussed below, EPA's previous approval of the Submittals was a departure from this approach.

[13] Unless otherwise noted, this notice refers to exempt periods other than those provided by the previous rule for startup, shutdown, load change and rate change (or other short intermittent periods upon terms approved by ADEM's Director and included in a State-issued permit), which were part of the existing SIP-approved rule and remained unchanged under the October 15, 2008 final action rule.

[14] "Allowable average quarterly opacity" is not a traditional measurement used by states or EPA for monitoring opacity or for opacity standard-setting purposes. Rather, EPA first used this approach, which allows sources to "average out" periods of very high opacity with periods of lower opacity, in the notice proposing to approve the Submittals, if the rules were changed to limit allowable average quarterly opacity. *See* 72 FR 18432 (providing instructions for calculating "allowable average quarterly opacity levels.") Subsequently, in the notice approving the Submittals, EPA also used the concept of "allowable average daily opacity." 73 FR 60958.

[15] See previous rule AAC 335–3–4–.01(1)(b) and current rule AAC 335–3–4–.01(4) and 335–3–4–.01(5).

[16] One of the technical support documents (TSDs) provided for this action explains in detail the differences between the current and prior visible emissions rules. EPA considered all the differences in reaching its decision today. EPA is simply identifying two significant differences that are particularly relevant to the analysis of the submittal.

[17] See previous rule AAC. 335–3–4–.01(1)(b) and current rule AAC 335–3–4–.01(4).

controlled should be capable of meeting the opacity requirements of the Alabama SIP without this revision. EPA is concerned that the allowance of higher levels and longer consecutive durations of opacity exceedances, even with an "average daily opacity" cap, would undermine an important purpose of the opacity limit, to ensure proper O & M of sources and their control devices.

After reviewing the issues raised in the petition for reconsideration and additional information received during the reconsideration public comment period, EPA concludes that the approach utilized to evaluate the Submittals in the October 15, 2008, rulemaking resulted in a fundamentally incomplete analysis. Requiring a source to maintain an average daily opacity of 22 percent does not provide assurance that the source will generally achieve the same level of PM control (and emissions) as a source which meets a limit of 20 percent opacity, except for one six-minute period per hour at 40 percent. Accordingly, the approach of the prior notice, which focused solely on maintaining an overall average daily (and quarterly) opacity does not provide an adequate framework for assessing the impact of the Submittals on emissions and air quality, which is the touchstone of the analysis required under section 110(l).

EPA did receive modeling from a variety of sources (which is discussed in the Response to Comments portion of today's action, beginning with Comment 19) which attempt to show the impact on air quality from the changes to the opacity requirements in the Submittals. In addition to EPA's discussion in the Response to Comments section, EPA's Technical Support Document addressing the modeling identifies the information gaps that prevented EPA from conducting the type of source-specific analysis that would be necessary for completion of an adequate 110(l) evaluation. For example, elements that are missing from the submitted modeling include: data from all the sources and source categories affected by the Alabama Submittals; a demonstration of the relationship between PM emissions and opacity at a particular facility and source-category; consideration of emissions from other sources in the modeled area; condensable PM data; explanation for background PM levels used in the evaluation; and an explanation of the use of PM_{10} as a surrogate for $PM_{2.5}$; among other concerns. As EPA noted in its evaluation of modeling submitted during the first comment period:

> Although source-specific correlations between opacity and mass emissions can be established for some sources, none have been for the sources subject to this SIP revision and therefore assumptions must be made about how a change in the opacity rule might affect the level of PM mass emissions being modeled. These assumptions made about the relationship drive model results and, thus, are important in evaluating the result of the modeling exercise.

73 FR 60961. EPA has carefully reviewed all of the modeling submitted and has concluded that, without source-specific data on the mass-opacity relationship, there is not an adequate basis to model the impact of the revisions to the opacity rules on PM mass emissions. Therefore, the models are insufficient and too inaccurate to provide a basis for concluding that the Submittals satisfy the requirements of section 110(l). As discussed below, EPA would need additional data and information before it could conclude that this approach would not result in an increase of nonattainment pollutants that would interfere with attainment and maintenance of the NAAQS.

5. The Role of Uncertainty in EPA's Analysis

As was noted earlier, a key issue in evaluating the Submittals is the element of uncertainty in the relationship between opacity and PM mass emissions. Many SIP submittals involve some level of uncertainty. EPA has never, and does not now, take the position that a small possibility that an attainment SIP might turn out not to result in attainment of the NAAQS, or to prevent a violation of the NAAQS, or that a SIP revision might worsen air quality, necessitates denial of a SIP revision. EPA recognizes that attainment planning generally requires a high degree of technical judgment, and often involves some degree of uncertainty. In EPA's prior approval, we concluded that the level of uncertainty concerning the impact of the SIP revisions on emissions of PM from sources was so great that EPA could not make a technical judgment as to whether or not approval of the Submittals would likely interfere with attainment and maintenance of the NAAQS or any other applicable requirements. In the face of such uncertainty, EPA concluded that section 110(l) did not prohibit the approval of the revisions at issue. After reconsideration, EPA has concluded that its traditional, and more precautionary, approach to interpreting section 110(l) is appropriate.

There is a general relationship between opacity and PM emissions such that an increase in opacity means the concentration of smaller particles, larger particles, or both, increases. *See, e.g.,* Malm, William C., "Introduction to Visibility," Cooperative Institute for Research in the Atmosphere, May 1999 at Chap. 2, p. 8. However, because increases in the quantity of smaller particles may be accompanied by decreases in the quantity of larger particles, and vice versa, changes in opacity do not necessarily reflect corresponding changes in the mass of PM emissions. While source-specific relationships between opacity and PM emissions may be obtained through testing, they can be influenced by a variety of circumstances such as fuel compositions and types of equipment malfunction that may occur. Therefore, while changes in opacity generally indicate changes in PM emissions, there is uncertainty about quantifying the specific level of PM emissions associated with varying levels of opacity.

EPA has previously explained the elements of that uncertainty in its proposed reconsideration action. 74 FR at 50933. One key element is the recognition that both opacity and mass emissions are subject to significant variability of short periods of time and fluctuations such that one may act independently of the other. *Id.* Thus, EPA concludes (and many commenters also acknowledged) that there is a relationship between opacity and PM such that periods of high opacity can result in increased PM emissions, which in turn can cause or contribute to a PM NAAQS violation. We can say with certainty that periods of high opacity would cause interference with the PM NAAQS in some circumstances. What EPA does not know is precisely when such changes in opacity would cause the interference, particularly for a variety of source types. This is the unknown element discussed in detail in EPA's proposal and this final action.

Section 110(l) was intended to allow SIP revisions in the absence of full attainment demonstrations, but EPA's view is that Congress would not have wanted EPA to approve SIP revisions where EPA lacked not only an attainment demonstration but also any basis for concluding that the SIP revision would not interfere with attainment or maintenance of the NAAQS, and other applicable requirements. Accordingly, consistent with our past practice in considering SIP revisions, EPA concludes that there must be either a contemporaneous attainment demonstration or some other basis for concluding that a SIP revision will not interfere with attainment, and that uncertainty alone is not a sufficient

basis for approving a SIP revision. Moreover, EPA has also concluded, following reconsideration, that there is a sufficient likelihood that the SIP revision at issue in this action could allow increased mass emissions over what would have been allowed under the previously approved SIP rule and that, in the absence of additional information or limitations, the revision is not approvable under section 110(l). As noted by commenters during the reconsideration process, although a precise correlation between mass emissions and opacity for an individual source can be difficult to ascertain, the changes contemplated in the Submittals are such that changes in emissions, including increases, are possible under the opacity levels allowed by the SIP revision. Given the location of affected sources within nonattainment areas, EPA has concluded that additional emissions from such sources would interfere with attainment and maintenance of the NAAQS in these areas.

EPA recognizes that there are circumstances in which a source will record opacity levels in excess of a 20 percent standard without necessarily increasing its mass emissions, but there are also many circumstances where increased opacity levels are associated with increased mass levels. The Submittals would provide sources with the flexibility to allow for visible emissions of up to 100 percent opacity for up to 2.4 consecutive hours per day. The degree of operational flexibility associated with the Submittals is such that EPA concludes that the opacity limits in the Submittals are likely overall to allow increased PM emissions. Even though every instance of operation at greater than 20 percent opacity may not result in increased emissions, and though EPA cannot precisely quantify the effect of approving the Submittals on the information in the record, it is reasonably foreseeable that approving the Alabama Submittals would allow increased mass emissions, for at least some sources and under at least some conditions, over the PM emission levels that would have been allowed under the previously approved SIP rule. Given this situation, section 110(l) requires disapproval of the Submittals absent additional limitations which would significantly diminish the likelihood that mass emissions increases will occur. The result of the disapproval is simply that Alabama's previous EPA-approved visible emissions rule will become the federally-enforceable rule in the SIP (although EPA urges that Alabama take any regulatory action necessary to avoid having a State-effective rule that is different from the SIP-approved rule).

6. Information Regarding Development of Visible Emissions SIP Revisions

In EPA's October 2, 2009, reconsideration proposal following reconsideration, EPA included a section entitled, "III. What Additional Information Would EPA Like To Receive?" 74 FR 50934. EPA specifically requested information on the nature of the relationship between opacity and PM mass emissions over both the short and long term and when the opacity and PM mass emissions may have a predictable relationship to one another. Id. EPA also requested source-specific data from Alabama facilities affected by the Submittals. EPA also included a bulleted list of more specific types of information that could assist in conducting an analysis on the impacts of a SIP revision on the air quality of the affected area (i.e., a 110(l) analysis). Id. Providing guidance on development of a general visible emissions SIP revision is difficult because opacity and visible emissions are most easily evaluated in a source-specific context. However, states may consider the following information useful.

As a general matter, states may find it instructive to look at visible emissions SIP revisions that EPA has approved. An example is the North Carolina approval previously referenced in this rulemaking. 70 FR 61556. As was noted earlier in this rulemaking, there are two key differences between the North Carolina action and the Alabama Submittals now being disapproved. First, the North Carolina action did not allow additional minutes of opacity exceptions. Second, the North Carolina action did not change the percentage of opacity allowed during the exception periods.

More generally, EPA expects that providing assurance that a source will comply with a rule that allows no more than one 6-minute exceedance per hour and opacity readings no greater than 40 percent clearly requires more effective control equipment and/or operating procedures than it takes to assure a source will comply with a rule that allows longer consecutive periods of exempt opacity excursions and at higher opacity levels. Opacity and PM emissions are related closely enough that control equipment effective enough to meet the more stringent opacity standard (in terms of the number of consecutive excursions allowed and the level of opacity excursions allowed) will also provide a greater level of PM emissions control. Due to the importance of first understanding the relationship between opacity and PM emissions at the affected sources, source-specific SIP revisions have historically been used by most states in developing different visible emissions standards for a source, particularly when those standards are less stringent than existing standards. Source-specific SIP revisions allow for the ability to analyze the PM/opacity relationship and establish an appropriate opacity limit that will not impact the NAAQS. The technical analysis for such rule changes would likely involve collection of parallel mass and opacity data for the source in question. If that information indicates that there will be increases in PM mass emissions or opacity, then further analysis would be required to ensure that the increased emissions associated with the increased opacity (or rule change at issue) will not interfere with attainment, reasonable further progress, or any other applicable requirement of the CAA (the 110(l) factors), for that particular source and locale. Further, a more definitive modeling assessment of the effect of any proposed rule would include the representative range of emission rates and/or conditions producing 100 percent opacity for each type of source affected by the rule.

When source-specific information is available, the uncertainty about the relationship between opacity and mass, and the implication of the changes in opacity on PM emissions, is reduced and there may be a basis upon which to make an informed judgment about the impacts of the change with respect to section 110(l). Further, source-specific actions are much more discrete since they typically apply at a particular unit of a particular facility, thus eliminating the need to evaluate the statewide impact of the change. EPA has undertaken source-specific opacity revisions. *See, e.g.,* 66 FR 33027 (June 20, 2001) (approving a source-specific revision affecting 14 units in Alaska). Similarly, a focus on a particular source category may also allow for more specific understanding regarding the relationship between opacity and PM emissions at the affected facilities and the rule's overall impact to air quality. 73 FR 36485 (June 27, 2008) (proposing disapproval of source-category specific revision; notice explains how a source-category revision may be developed).

EPA is not suggesting that every revision to an opacity standard requires source-specific analyses. If a submission provides a sufficient basis for EPA to conclude that changes to a visible emissions requirement will not result in

increased PM emissions in a nonattainment area over what would have been allowed under the previously approved SIP rule (or otherwise interfere with any applicable requirement of the CAA), then EPA anticipates that it would be approvable under section 110(l). Ultimately, the key issue that must be addressed in any 110(l) analysis of an opacity SIP revision is an evaluation regarding the impact of that revision on PM emissions and the NAAQS. As was noted earlier, because Alabama's Submittals were voluntary revisions to the SIP and not mandated, Alabama has no obligation to develop another visible emissions revision.

III. Response to Comments

The following are EPA's responses to the significant adverse comments on EPA's October 2, 2009, proposal. EPA is obligated to respond to adverse comments received and thus, has reviewed the comments that were adverse to a disapproval of the State's SIP revisions. EPA is now responding to those comments. Many of the comments overlapped or were redundant, so in order to assist with readability of the responses, we have organized the comments and responses into subject-matter groupings identified below.

1. Basis for Reconsidering the 2008 Final Action
2. Relationship Between Opacity and PM Emissions
3. Modeling
4. Relative Stringency of Previous Rule (Pre-2008 Final Action) to Current Rule (Post-2008 Final Action)
5. Attainment and Maintenance of the PM NAAQS (PM_{10} and $PM_{2.5}$) and Data Submitted in Response to October 2009 Reconsideration Proposal
6. Impact of Uncertainty in These SIP Revisions
7. Applicability of CAA Sections 110(l) and 193 to This Action
8. CAA Section 110(l) "Demonstration" of Non-Interference With the NAAQS and Other Requirements
9. Use of COMS and Need for Exemptions
10. Relationship of SIP Revisions to 40 CFR Section 51.212
11. Relationship of SIP Revisions to the Compliance Assurance Monitoring (CAM) Rule
12. Relationship of SIP Revisions to *Sierra Club* v. *EPA,* 551 F.3d 1019 (D.C. Cir. 2008), and the Vacatur of Certain Provisions in 40 CFR Part 63
13. Relationship of SIP Revisions to Reasonably Available Control Technology (RACT)
14. Other Exemptions in the Alabama SIP Related to Visible Emissions

1. Basis for Reconsidering the 2008 Final Action

Comment 1. Commenters argued that because EPA's October 2, 2009, reconsideration proposal notice did not select an option, or at least disclose to the public which option EPA preferred, EPA's interpretation of the relevant CAA provisions and their application to the situation here will be entitled to no deference upon judicial review. Also, the commenters asserted that their ability to comment on the proposal is hamstrung by EPA's failure to articulate which option EPA would choose.

Response 1. EPA does not agree with commenters' characterization of the October 2, 2009, proposed rulemaking. That proposal described two alternative actions in detail—including the technical, legal, and policy bases for each of the respective actions. EPA provided sufficient information for each alternative for commenters to participate meaningfully and for either alternative proposal to be finalized, depending upon what additional information was developed as a result of the reconsideration. EPA has previously used the alternative proposal option when dealing with a particularly complex rulemaking (*see, e.g.,* proposal regarding California-Imperial Valley Planning Area, 66 FR 42187 (August 10, 2001)). In this case, EPA's interest in ensuring public comment on the two primary options was best achieved through the alternative proposals. There is no indication of any commenter being unable to provide meaningful comments. Numerous commenters provided substantive comments on both of the two proposals. The substance of the commenters' own comments reflect that they were on notice of the factual and legal issues relevant to the reconsideration.

Comment 2. Commenters asserted that there is no new record evidence provided by EPA, Petitioners, or other interested parties in order to support the second petition for reconsideration of EPA's approval of the SIP revision in the October 2008 final action.

Response 2. EPA's authority to reconsider a SIP rulemaking derives from both the Administrative Procedures Act (APA) section 553(e) as well as authority in the CAA. The APA provides the opportunity for any person to "petition for the issuance, amendment, or repeal of a rule." 5 U.S.C. 553(e). The APA does not explicitly limit this right based on new evidence or any other limitations alleged by commenter. Even if there were such a limitation, EPA disagrees that the second petition for reconsideration did not raise issues that warranted reexamination of the factual and legal basis for the October 2008 action.

Comment 3. Commenters argued that the CAA does not authorize EPA to continue to entertain petitions for reconsideration "indefinitely" after a specific CAA process has been followed and reconsideration has been denied. According to the commenters, the CAA allows EPA to "call" an approved State SIP for legal deficiencies, but does not allow EPA to continue to reconsider its actions on a state-submitted SIP revision after the revision is approved. Commenters also argued that EPA lacks authority to reverse its approval of the SIP revisions because EPA may only change its standard for review of SIP revisions under section 110(l) prospectively—*i.e.,* EPA may only apply an allegedly new reading of section 110(l) to new state requests for SIP revision. The commenters further argued that any request for reconsideration of a final SIP approval must follow the procedures identified in CAA section 110(k)(5) for seeking a change to a previously approved SIP revision (noting that section 307 does not apply and section 553(e) of the APA cannot be used to bypass 110(k)).

Response 3. EPA disagrees with the commenters' views of EPA's authority to reconsider rulemakings under these circumstances. An administrative agency has the authority to reconsider its decisions, unless Congress specifically limits the agency's discretion to do so. *See, e.g., Gun South, Inc.* v. *Brady*, 877 F.2d 858, 862 (11th Cir. 1989) (holding that agencies have implied authority to reconsider and rectify errors even though the applicable statute and rules do not provide expressly for such reconsideration). The DC Circuit Court recently affirmed this authority in *New Jersey* v. *EPA*, 517 F.3d 574 (D.C. Cir. 2008), where it explained that an agency normally can change its position and reverse a prior decision but that in the case before it, Congress limited EPA's ability to remove sources from the list of hazardous air pollutant source categories, once listed, by requiring EPA to follow the specific delisting process at CAA section 112(c)(9). *See also, e.g.*, Trujillo v. *General Electric Co.*, 621 F.2d 1084, 1086 (10th Cir. 1980) ("Administrative agencies have an inherent authority to reconsider their own decisions, since the power to decide in the first instance carries with it the power to reconsider"). EPA recently applied this approach in connection with California conformity

SIPs. EPA had approved the SIPs based on a mobile source model that was current at the time of EPA's approval. EPA proceeded to update the mobile source model, but under the previous SIP approvals, conformity decisions would continue to be made on the basis of those previous SIP approvals, and would not take into account the updates to the mobile source model. To remedy this problem, EPA conducted a rulemaking that revised the previous SIP approvals so that they were limited to the period before States submitted, and EPA found adequate, the mobile source budgets in new SIPs based upon the update of the mobile source model. *See* 74 FR 55292, 55342 (October 27, 2009) (discussing EPA's inherent authority to reconsider SIP actions). *See also* 73 FR 21528 (August 22, 2008) (EPA final action on reconsideration of previous Georgia SIP action).

The commenters questioned EPA's authority to reconsider a SIP action and appear to suggest that EPA's authority is limited to only a SIP "call" under section 110(k)(5) of the CAA. The SIP call process, however, is a distinct and separate authority that Congress has given to EPA for use when EPA determines that a current SIP is substantially inadequate to attain or maintain compliance with the CAA requirements. *See, e.g., Sierra Club* v. *Georgia Power Company,* 443 F.3d 1346, 1348 (11th Cir. 2006) (describing the separate revision provisions under the CAA and the SIP call process generally). The SIP call process was not intended to be the sole means of revising the SIP and does not displace EPA's authority to reconsider its approval.[18] While the two processes may be complementary, the authority to reconsider an action and the authority to issue a SIP call are not mutually exclusive, and one or the other may be appropriate in different circumstances.

As the commenters correctly noted, EPA's approval of a SIP revision is not subject to the rulemaking requirements of the CAA section 307(d) because it does not fall within the enumerated categories in section 307(d)(1) of the CAA. Section 307(b)(1), to which a SIP revision rulemaking is subject, contemplates the "filing of a petition for reconsideration by the Administrator of any otherwise final rule or action." 42 U.S.C. 7607(b)(1). Courts have also found that EPA must follow the rulemaking requirements of the APA when evaluating a SIP submission (*see, e.g., Hall*, 273 F.3d at 1161), including section 553(e). Finally, the very nature of a SIP is that it is not a static document; it is regularly revised to account for new EPA standards and new emissions reduction technologies. 42 U.S.C. 7410(a)(2)(H).

Furthermore, EPA notes that the SIP revision at issue did not take effect by its own terms until after the date on which EPA granted the second petition for reconsideration. No sources affected by the revisions to the Alabama SIP should have been required to alter their facilities or their operations in reliance on the prior EPA approval. EPA's view is that a source that is properly maintained, operated and controlled should have no difficulty complying with either the pre-existing or the revised version of visible emissions rules in the SIP, or even complying simultaneously with both versions of the SIP, which suggests that the reconsideration process should not have been disruptive for any source. In the present case, EPA concluded that reconsideration of its approval of the Submittals was necessary to ensure that the final decision was consistent with the plain text and legislative history, and air quality goals of the CAA, given the facts at issue in this situation. While the result of EPA's action today is that Alabama's Submittals are disapproved, the effective date for such disapprovals will be the effective date of this final action. Thus, there is nothing retroactive about today's final action.

Comment 4. Commenters argued that if EPA reverses its approval of the Submittals now, that would be arbitrary, contrary to EPA's statutory authority and its responsibility to implement the CAA, and in violation of EPA's "delegation commitment" to Alabama under the CAA.

Response 4. As a point of clarification, Alabama is authorized to implement certain portions of the CAA through its SIP. Commenters do not explain the "delegation commitment" reference. Such terminology is inapposite as the majority of CAA programs are "authorized," not "delegated," particularly with regard to those embodied in a SIP. Some CAA programs, such as section 112, are routinely "delegated" by EPA to states; however, section 112 programs are not SIP programs. EPA's responsibility to implement the CAA extends to ensuring that its decisions are based in the CAA and its implementing regulations. In the instant action, EPA is reversing a previous approval decision because after reconsideration, EPA has concluded that a disapproval is required based on known technical information (as opposed to uncertainty) and an interpretation of section 110(l) that is most consistent with the plain text and legislative history of the CAA, as well as the air quality goals set forth in the CAA. As was explained above, EPA's reconsideration process is well grounded in statutory authority.

Comment 5. Commenters asserted that EPA's reconsideration proposal notice does not provide any information about the legal authority that the Agency believes justifies its action. The commenters further argued that it is incumbent upon the Agency to disclose the legal basis upon which it proposes to act and to provide the public with the opportunity to comment on that asserted basis, and that without such an explanation from EPA, the October 2, 2009, proposal notice is deficient and does not provide an adequate basis upon which the Agency can lawfully take action.

Response 5. EPA does not agree with commenters' assessment. The October 2, 2009, reconsideration proposal includes two alternative options for final action—both based upon application of section 110(l) of the CAA. Section 110(l) applies to all SIP revisions and limits EPA's legal authority to approve revisions to existing EPA-approved SIP provisions. The reconsideration proposal notice explained the alternative proposed actions as well as the interpretation of section 110(l) that would support each of the alternatives. The substance of the comments reflects that the commenters were in fact on notice of the factual and legal issues that EPA raised for reconsideration.

Comment 6. Commenters asserted that certain documents received in response to a Freedom of Information Act (FOIA) request do not support the reopening of the public comment period.

Response 6. As was explained earlier, there is no prohibition on EPA's authority to review a final action and allow for a new public comment period on that action. EPA has provided the basis of the reconsideration of the October 15, 2008, final rule—the CAA and the APA. Whether documents obtained through a FOIA support EPA's reconsideration, in the opinion of the commenter, is not relevant.

Comment 7. Commenters asserted that EPA appears to be considering a "policy change" in how it interprets and applies section 110(l) in the reconsideration process. Commenters argued that if EPA wants the State to amend its approved SIP to reflect revised EPA policy on section 110(l), EPA must act under section 110(k)(5) of the CAA and not through a "unilateral" notice and

[18] In addition to its SIP call provisions, the CAA also includes provisions for the correction of errors in the SIP. *See* CAA section 110(k)(6). EPA notes that the process it has used for reconsidering and disapproving this SIP revision is entirely consistent with the process required under section 110(k)(6).

comment process. Commenters asserted that they are aware of no other situation where EPA has proposed to act in this manner to "withdraw" a final approval of a SIP revision.[19]

Response 7. EPA's interpretation of 110(l) that is outlined in this final action is consistent with EPA's historic interpretation of 110(l), the plain text of the CAA, and the legislative history of the CAA (as well as court opinions that have considered 110(l)). EPA's decision is based on its re-evaluation of the likelihood that approval of the Submittals will result in increases of allowable PM emissions. In amending its previous action, EPA is placing greater weight on the technical aspects of the SIP Submittals that are known to have the potential for adverse impacts on the NAAQS as a result of allowing greater levels and durations of opacity exceedances. This change does not represent a policy shift, but rather, an analytical reconsideration of what decision is most supported by the CAA, given the facts at issue in this rulemaking. Moreover, EPA's reconsideration process in this action was far from "unilateral." By reopening the rulemaking for additional public comment, and setting forth the legal, technical, and policy bases for that alternative outcomes in the reconsideration process, EPA sought to ensure that the public had an opportunity to comment and review the possible options.

Ironically, if anything, the SIP call process apparently preferred by commenters is more "unilateral" in that such a process is initiated after EPA has concerns that an existing SIP is substantially inadequate and often requires a state to take action to revise its SIP following EPA's final action on the SIP call. Here, EPA's disapproval will result in a rule coming back into effect that was in effect for years. Alabama will not be required to submit a revised SIP revision. Further, as explained above, EPA has used the alternative proposal approach in the past. While the approach is not appropriate in all regulatory actions, it serves an important purpose of seeking public comment in the unusual circumstance in which two potentially supportable decisions exist and additional information or input from the public may be helpful to EPA in making a final decision.

[19] EPA notes APC's request that should EPA take final acting disapproving Alabama's SIP revisions, that EPA stay its disapproval action pending litigation (APC Comments, pp. 10, footnote 2). EPA is not acting on this request through this final action.

Comment 8. Commenters stated that EPA's prior analysis of the SIP revision remains sound and that there is no basis for reversing the conclusions of that analysis. According to the commenters, the rigors of the prior SIP revision process insured that the concerns raised by the Petitioners have already been heard and considered by both ADEM and EPA multiple times. The commenters argued that the petition for reconsideration raised no issues that were not or could not have been raised during the prior rulemaking process. Therefore, the commenters argued that reversing the prior approval of Alabama's Submittals at this point and in this manner would not only be an abuse of EPA's authority under the CAA, it would be the height of arbitrary and capricious Agency action.

Response 8. EPA does not agree with the commenters' assessment. For the reasons described in this final notice, EPA has determined that reconsidering its prior approval and seeking additional notice and comment on the factual and legal issues raised by the Petitioners was an appropriate action. In reversing its prior approval, EPA has concluded that disapproval is necessary pursuant to the plain text of the CAA, its legislative history, and the air quality goals described therein. EPA appreciates that there has been substantial discussion about the merits of the Submittals, including various opportunities for public comment. Ultimately, however, when weighing alternatives, EPA's final decision must be the one that is most consistent with the CAA, even if that decision is reached through a reconsideration process. EPA has already addressed its authority to review the October 15, 2008, final action in response to comments above.

Comment 9. Commenters asserted that in granting the second petition for reconsideration and re-opening the rulemaking for further public comment, EPA ignores the lack of a legal basis for reconsideration, its earlier rejection of AEC's arguments for reconsideration on the merits, and its thorough review and technical analysis of the effect of these SIP revisions during the earlier rulemaking itself. According to the commenters, reconsidering a SIP approval sets a poor precedent and undermines regulatory certainty and the integrity of EPA's rulemaking processes.

Response 9. EPA does not agree with commenters' assessment. To the contrary, the reconsideration process has ensured that EPA has left no issue unconsidered in its analysis of the Submittals. EPA's final action on the Submittals, while amended from its previous action, is strongly grounded in the CAA, the APA, and sound science. This action furthers the purposes of the CAA, is based on the substantive requirements of the CAA, and follows the rulemaking requirements of the CAA and the APA. Thus, the action supports regulatory certainty and the integrity of SIP process. *See, e.g.* 73 FR 21528 (August 22, 2008) (EPA reconsideration of Georgia SIP action). Indeed, the fact that the CAA and the APA provide bases for reconsidering regulatory decisions demonstrates that Congress expected EPA to take necessary action to revise its actions when a party raises factual or legal issues that the Agency finds justify reconsidering such actions.

Comment 10. Commenters questioned why EPA granted the petition for reconsideration of the approval of Alabama's Submittal because the Petitioners have provided no new information.

Response 10. As was discussed above, the APA does not restrict EPA's authority to reconsider a rule to a specific record or timeframe. EPA was petitioned for reconsideration of a rule and EPA granted that reconsideration because it concluded that the petition raised factual and legal issues that justified further evaluation. The second petition for reconsideration raised numerous reasons why EPA's October 15, 2008, final action should be reconsidered, including several reasons not identified in the first petition for reconsideration. Thus, commenters' characterization of the second petition for reconsideration as providing no new information is also not correct.

2. Relationship Between Opacity and PM Emissions

Comment 11. Commenters asserted that data submitted to EPA show that there is no reliable or direct correlation between opacity and PM emissions. In addition to several sources of uncertainty in the relationship between changes in opacity and increases or decreases in $PM_{2.5}$ levels cited by EPA in the April 12, 2007, proposal notice, the commenters argued that other variables affecting the relationship of opacity and PM mass emissions include stack diameter, stack gas temperature, particle density (a function of coal type), and flue gas water vapor content. The commenters argued that many, if not most, of these variables are beyond the control of source operators. Therefore, the commenters stated that while opacity can serve as an indicator of whether the boiler and related pollution control equipment at a specific source are well-controlled and well-operated, changes to opacity of emissions,

including changes to the SIP limits applicable to opacity in a SIP, cannot be presumed to have any direct effect on ambient concentrations of PM.

Response 11. EPA generally agrees with commenters that there is inherent uncertainty in the precise relationship between opacity and ambient concentrations of PM, although we note that some variables are less likely to vary during a single source's operation (as opposed to among different sources). EPA also agrees (as a general matter) with commenters' statements that opacity is useful as an indicator of a source's operations and control technology. Moreover, opacity can be a reliable indicator of PM emissions when appropriate source-specific testing is carried out and correlations are established for the particular source, operating characteristics, and fuel supply.

EPA disagrees, therefore, that increases in opacity of emissions per se could not reflect any increases in mass emissions under any circumstances, in particular in the case of the significant increases in the percentage opacity and the duration of excursion time at issue in these SIP revisions. This comment highlights the importance of ensuring that the final decision made by EPA to approve a SIP revision is based on a reasoned application of that knowledge within the confines of the CAA.

Comment 12. Commenters argued that available data continue to demonstrate there is no reliable, generally applicable relationship between opacity and the PM NAAQS. The commenters asserted that previous technical studies submitted by APC in the rulemaking confirm this lack of correlation. The commenters referred to prior comments for the assertion that: "Because opacity is dependent on so many factors, there is no general relationship between opacity and particulate loading."

Response 12. EPA agrees that opacity data from different individual sources are very specific to the source and to the manner in which it is being operated for the period over which data is collected. In other words, source operation affects data produced by the source. Thus, EPA and others must consider not only the data on opacity and PM, but also the details regarding the facility and its operating characteristics as part of developing an opacity/PM correlation. As a result, such data from one facility may be of limited value in extrapolating reliable conclusions about emissions from another facility. However, EPA expects that sufficiently high increases in opacity up to 100 percent for extended periods can represent some impact on PM emissions from the sources affected by the rules at issue in the Alabama SIP revisions. As noted by comments received through the reconsideration process, although the precise correlation between the mass and opacity of emissions may vary, significant increases in opacity to its highest measurable level at the same source are likely to result in additional PM emissions from that source. Given that several sources are located in and near nonattainment areas, such additional emissions are inconsistent with the prohibition of section 110(l) on SIP revisions that will interfere with attainment and maintenance of the NAAQS.

Comment 13. One commenter asserted that EPA's prior conclusion that greater opacity does not necessarily mean greater PM emissions is entirely reasonable.

Response 13. EPA appreciates commenters' position on this issue—the uncertainty inherent in the relationship between opacity and PM is discussed at length in this final action. While EPA agrees that greater opacity does not necessarily (in all circumstances) mean greater PM emissions, EPA does expect that some periods of greater opacity (particularly of high opacity for longer periods of time) are likely in at least some circumstances to be accompanied by greater PM emissions.

Comment 14. A commenter agreed that it is difficult to accurately characterize differences in direct $PM_{2.5}$ emissions attributable to short-term increases in opacity and further commented that: (1) The type of event causing the short-term increase in opacity will most probably have an effect on any direct $PM_{2.5}$ emissions differences associated with the event, and (2) based on the cumulative size distribution table in AP–42 (Compilation of Air Pollutant Emission Factors), any increase in PM emissions associated with short-term increases in opacity would most likely occur in particle sizes larger than direct $PM_{2.5.}$

Response 14. Commenter appears to refer to Table 1–1.6, "Cumulative Particle Size Distribution and Size-Specific Emission Factors for Dry Bottom Boilers Burning Pulverized Bituminous and Subbituminous," which is found in Chapter 1 of EPA's AP–42, *Compilation of Air Pollutant Emission Factors* (*http://www.epa.gov/ttn/chief/ap42/*). This table suggests that for units having pollutant emissions controlled by electrostatic precipitators (ESPs), $PM_{2.5}$ accounts for only 29 percent of total PM emissions. EPA agrees the type of event causing an increase in opacity of emissions may have an effect on the size distribution of PM emissions. However, EPA disagrees that increases in PM emissions associated with increases in opacity would most likely occur in particle sizes larger than 2.5 micrometers in aerodynamic equivalent diameter, since the circumstance that causes an opacity increase could occur while a PM control device is operating properly, as described by the value contained in the AP–42 table, or while a PM control device is not operating properly, a condition not described in the AP–42 table. The uncertainty regarding the impact of opacity increases on PM emissions is further complicated because particles approximately 1.0 micrometer in diameter have greater potential for increasing opacity than larger particles. *See, e.g.,* Malm, William C., "Introduction to Visibility," Cooperative Institute for Research in the Atmosphere, May 1999 at Chap. 2, p. 8. Thus, for the increases in opacity contemplated in the SIP revisions at issue in this rulemaking, EPA is concerned that this increased opacity would probably include additional particles of the very types that would be problematic for purposes of attaining and maintaining the $PM_{2.5}$ NAAQS.

Comment 15. Commenters argued that with regard to EPA's request for additional information addressing the relationship between opacity and PM emissions generally, only the relationship between opacity and direct $PM_{2.5}$ would be relevant to the situation at hand, and that this information would be virtually impossible to obtain due to the inclusion of larger particles which are an inevitable part of any effluent gas stream.

Response 15. EPA agrees that information concerning the relationship between opacity and $PM_{2.5}$ emissions from a facility would be most relevant for purposes of evaluating impacts on the $PM_{2.5}$ NAAQS, but EPA notes that no commenter provided such data, despite EPA's specific request for such specific data. 74 FR 50934 (October 2, 2009). EPA disagrees that this information would be virtually impossible to obtain. By way of example, some sources are obtaining and reporting these data as part of the current electrical utility maximum achievable control technology (MACT) rule information collection request. Also, under section 110(l) of the CAA, EPA may not approve revisions to SIP if the revisions would interfere with any applicable requirement concerning attainment and reasonable further progress (RFP), or any other applicable requirement of the CAA. Because there are also NAAQS for $PM_{10,}$ states and EPA must also consider potential

impacts of increases of larger particles if increased opacity were to include the emissions of larger particles from a source as the commenter asserted. For 110(l) purposes, analysis of a SIP revision must include all of the current NAAQS, to the extent that the changes in the SIP revision could affect such NAAQS. With respect to this action, EPA has only focused on the potential impacts of the SIP revision on the $PM_{2.5}$ NAAQS because those are the standards that EPA anticipates are most implicated by the increases in opacity at issue.

Comment 16. Commenters argued that although an increase in opacity can be a good indication that PM emissions at the stack also are increasing, the magnitude of mass emissions relative to any one opacity value and the increase in mass emissions relative to increase in opacity generally are not quantifiable. Accordingly commenters asserted that an increase in opacity would provide no information regarding emission levels of $PM_{2.5,}$ as opposed to PM_{10} or total PM, and argued that any correlation between opacity and PM would have to be source specific, and even then, uncertainties remain. The commenters also criticized EPA's information on opacity and PM, noting that the charts included in the docket do not contain sufficient information to evaluate the relationship between opacity and PM.

Response 16. EPA agrees that an increase in opacity can be a good indication that PM emissions at the stack also are increasing. It is for this reason that we are disapproving the SIP revision embodied in the Submittals, even though the magnitude of mass emissions relative to any one opacity value and the increase in mass emissions relative to increase in opacity generally are not quantifiable. EPA also agrees with the commenters that a correlation between mass and opacity can be derived at a specific source, and EPA has in the past approved SIP revisions that relied on such correlations with sufficient technical analysis.

EPA disagrees, however, that information about opacity increases provides no information regarding $PM_{2.5}$ emissions specifically. Rather, information about opacity increases without concurrent $PM_{2.5}$ emissions data or an established correlation between opacity and $PM_{2.5}$ emissions cannot be expected to yield definitive information concerning increases in $PM_{2.5}$ emissions. The memorandum in the docket, EPA–R04–OAR–2005–AL–0002–0064, provides the information known to EPA about the charts referenced by the commenter, EPA–R04–OAR–2005–AL–0002–0045 and EPA–R04–OAR–2005–AL–0002–0047. Further, the charts provided in the docket demonstrate the inherent uncertainty in the relationship between opacity and filterable PM mass emissions by showing a range of mass emission rates associated with a single opacity value and a range of opacity values associated with a single mass emissions rate. However, uncertainty about the precise correlation between mass and opacity as a general matter, does not mean that opacity increases never represent concurrent increases in the mass of PM emissions from a source. To the contrary, given the large increases in maximum allowable opacity and for the periods of time at issue in the SIP revision contemplated in the Submittals, EPA expects that it is likely that there could be increases in mass emissions.

Comment 17. Commenter disputed the relationship between opacity and PM mass emissions based upon EPA statements in an unrelated rulemaking. The commenter asserted that despite providing the option for use of PM continuous emissions monitoring system (CEMS) as a compliance method for PM mass limits in revised NSPS Subparts D and Da, EPA also recently suggested it had concerns regarding the accuracy of PM CEMS measurements above 0.030 pounds per million British Thermal unit (lb/mmBtu). As a result, the commenter argued that EPA declined to exempt units operating above that level from the NSPS opacity standard even when such sources install PM CEMS. 74 FR 5070 (January 28, 2009). Commenter requested, to the extent EPA relies on data from PM CEMS above 0.030 lb/mmBtu in this proceeding, that the Agency explain how it resolved those concerns.

Response 17. EPA disagrees with the commenter's conclusions regarding PM CEMS measurement accuracy above 0.030 lbs/mmBtu. As mentioned in the cited **Federal Register** notice, the contribution of filterable PM to opacity at these emission levels (less than 0.030 lb/mmBtu) is generally negligible, and sources with mass limits at this level or less will operate with little or no visible emissions (*i.e.,* less than 5 percent opacity). As a result, EPA expects that an opacity standard is no longer necessary for such sources because the PM mass emission rate standard is substantially tighter, and the use of PM CEMS with continuous monitoring of PM emissions is more effective than opacity monitoring in these circumstances.

This comment is also not germane to today's action because the SIP revisions at issue did not include the requirement that the affected sources install PM CEMS as a precondition to the revision of the applicable opacity standard. As noted above, opacity standards serve an important role in assuring compliance with PM limits, for example by alerting regulators to problems with source operation or control measures that would not otherwise be noted except during a stack test for PM emissions, which occur only periodically. In some circumstances, opacity is the emission standard that is the subject of an enforcement case.

Comment 18. A commenter articulated the position that its facilities are operating in compliance with PM limits in the title V permits and as a result, the opacity rule is not likely to impact PM compliance. The commenter further opined that ADEM should address any PM nonattainment issues separately from this rulemaking.

Response 18. EPA disagrees with the assessment that opacity is unlikely to have any effect on PM emissions for all the reasons explained in this final action regarding that relationship. Further, Alabama's visible emissions rule is a part of Alabama's plan to attain and maintain the PM NAAQS. Even though it has been in the SIP for some time, the rule was originally included for that purpose. Thus there is nothing separate about this action and Alabama's PM nonattainment issues—the rule at issue here is part of Alabama's overall plan to address the PM NAAQS. Further, if a source is in compliance with the opacity and PM limits, then this disapproval action should have little effect on that source.

3. Modeling

Comment 19. Commenters argued that modeling is not required to demonstrate that changes to Alabama's opacity rule will not implicate the NAAQS. Nonetheless, commenters argued that ADEM performed a modeling analysis demonstrating that even earlier versions of the SIP revision (predating the Submittals that EPA approved in October 2008) would not adversely affect air quality attainment or RFP under very conservative assumptions about the relationship between opacity and PM emissions. In addition, commenters argued that updated modeling from a consultant, ENSR (now known as AECOM), updated ADEM's 2003 modeling in 2007 using AERMOD (an atmospheric dispersion modeling system and EPA's preferred model since 2005) and confirmed ADEM's earlier modeling results. Commenters argued that APC and TVA have performed subsequent modeling that also

supported the conclusion that the increased opacity permitted by the SIP revisions in the Submittals would not interfere with attainment and maintenance of the NAAQS or other requirement of the CAA. Commenters asserted that these modeling results show no problem with the NAAQS even under unrealistic, worst-case conditions. APC also discussed modeling done at APC Plants Barry and Greene and TVA Plant Colbert which APC believes supports affirming EPA's 2008 final action approving the Alabama SIP revisions. Commenters further noted that ADEM performed a modeling analysis demonstrating that the SIP revisions would not affect air quality attainment under very conservative assumptions about a relationship between opacity and PM emissions. According to the commenters, modeling performed by TVA confirms that particulate emissions from the Colbert facility would not interfere with maintenance of the PM_{10} or $PM_{2.5}$ NAAQS, even for the unrealistic scenario in which the ESPs are shut down for 10 percent of the time every day of the year.

Response 19. EPA disagrees with the commenter's assertions. As discussed in 73 FR 60961 (October 15, 2008), all modeling results are predicated on a known or assumed correlation between opacity and PM mass emissions. Because this correlation can differ for each source and operating condition, modeling that does not use source-specific correlations does not and cannot demonstrate with certainty the impact of changes in opacity on PM NAAQS. With respect to the modeling described by the commenters, the models do not demonstrate that the Submittals would not interfere with attainment or maintenance of the NAAQS because the models do not appear to have included condensable PM or background analyses, to have assessed the impact of nearby PM emissions sources, or to have assessed the impact of secondary PM formation. Generally, however, the utility of modeling would still be limited because the precise relationship between opacity levels and PM mass emissions is not known. The docket for this action includes a technical support document (TSD) summarizing the modeling that EPA received and some of the key assumptions and other issues that impacted the utility of the modeling.

Comment 20. Commenters argued that EPA has routinely approved SIP demonstrations based on the use of air models, rightly concluding in such matters that the use of the air models leads to a reasonable demonstration of compliance with the NAAQS.

Response 20. As a general matter, EPA agrees that modeling can be a useful tool in appropriate circumstances. In this case, the modeling provided did not reduce uncertainty regarding the relationship between opacity and PM emissions sufficiently to support approval of the Submittals. Further, the modeling did not conclusively demonstrate that there would be no impact on the NAAQS. Thus, EPA could not conclude that the modeling submitted supported approval of the Submittals under section 110(l). EPA's modeling TSD provides more information on the modeling submitted to EPA as part of this action.

Comment 21. Commenters stated that monitoring data show a decline in ambient $PM_{2.5}$ and PM_{10} levels at monitors that could potentially be impacted by TVA's Colbert and Widows Creek Plants.

Response 21. EPA acknowledges that ambient PM levels have been improving in many parts of the country as a result of rigorous state and EPA efforts to control emissions from many sources of various types. EPA wants to maintain these improvements and to support further improvements for protection of public health as many areas are still designated nonattainment for the NAAQS. Indeed, this is among the reasons why reviewing SIP revisions pursuant to section 110(l) is such an important exercise.

4. Relative Stringency of Previous Rule (Pre-2008 Final Action) to Current Rule (Post 2008 Final Action)

Comment 22. Commenters argued that Petitioners' claims regarding "bundling" or other potential ways of "using" Alabama's visible emissions revisions to somehow reduce control efforts while still meeting permit requirements are misplaced. According to the commenters, it is extremely difficult to achieve continuous or near-continuous compliance with the opacity rules, so there is absolutely no incentive to try to "game" the system by trying to achieve less than maximum opacity control at any one time. Further, commenters argued that facility procedures aimed at minimizing opacity levels at all times in order to avoid non-exempted exceedances insofar as practicable remain intact after the rule revisions went into effect January 1, 2009.

Response 22. The commenters' argument appears to be that even though "bundling" could occur, it will not, because sources are diligently striving to minimize their opacity levels. While EPA certainly expects that sources are seeking to minimize their opacity levels, EPA's analysis of the revision considered what the two versions of the Alabama rules allowed—and not necessarily how sources were operating under each rule scenario. As with the modeling submitted by many commenters, the primary problem associated with their conclusions about the amount of PM emissions during longer periods of elevated opacity is the reliance on an assumed relationship between opacity and PM emissions that has not been established for the specific source. As mentioned previously, this relationship is unknown for each source and operating condition, absent sufficient evaluation. EPA disagrees that the "bundling" of periods of high opacity could never reflect higher PM mass emissions.

EPA understands the difficulties associated with operating older facilities, but disagrees that continuous compliance with opacity rules can be achieved only through extreme difficulty. The Alabama SIP opacity limits in effect following this disapproval should generally be capable of being met by a source that is properly maintained, operated and controlled. There are control technologies and operational paradigms that allow older facilities to comply with Alabama's pre-October 15, 2008, opacity rules (this was recognized by the court in the TVA Colbert case, *Sierra Club* v. *TVA,* 592 F. Supp. 2d 1357 (N.D. Ala. 2009)).

Comment 23. Commenter explained that to attempt to bundle six-minute opacity exceedances would necessitate a purposeful "turn-down" of the unit's ESP and, thus, result in non-compliance with two provisions of the commenter's Lowman Plant's major source operating permit (title V permit): (1) That "all air pollution control devices * * * be * * * operated at all times in a manner so as to minimize the emissions of air contaminants," and (2) once the emissions exceed a six-minute average opacity of 20 percent, corrective actions must be taken within two hours.

Response 23. EPA's analysis of the SIP revisions at issue is governed by, among other provisions, section 110(l) of the CAA. In that context, as was explained previously, EPA must compare the existing SIP and the proposed SIP revision. While affected sources may have permit limits that are more stringent than the applicable SIP regulations, EPA's analysis must focus on what the SIP itself would allow. Permits may be revised from time to time, depending on applicable requirements. As a result, the type of analysis completed by the commenter based on the applicable permits might

be changed over time. Further, while EPA would, of course, be concerned by a purposeful "turn-down" of any control device, EPA expects that there are other circumstances under which extended periods of consecutive exemptions would allow high opacity levels (and mass emissions) that would not occur in a well-operated, well-controlled, and well-maintained plant. EPA appreciates PowerSouth Energy Cooperative's (PSEC's) analysis, which demonstrates that this disapproval action should have little effect on the vast majority of sources.

Comment 24. Commenters provided data in three attachments provided by PSEC showing emissions during the period of January 1, 2009, thru September 30, 2009, clearly indicate that no "bundling" occurred. For example, Attachment 1 shows that of the total of 90 six-minute periods of excess opacity (*i.e.,* six-minute averages of opacity greater than 20 percent), including startup/shutdown and load change periods, there were 40 occurrences of isolated six-minute periods of excess opacity; 14 occurrences of two consecutive six-minute periods of excess opacity; four occurrences of three consecutive six-minute periods of excess opacity; one occurrence of four consecutive six-minute periods of excess opacity; and one occurrence of six consecutive six-minute periods of excess opacity.

Response 24. EPA appreciates the submission of operating data. One of the difficulties with the technical analysis regarding opacity is that details regarding facility operation can impact both opacity and PM in different ways. Further, EPA must consider the effect of the Submittals on how a facility may be allowed to operate, not just how the facility actually has been operating. With these considerations in mind, the operating data were informative, but not determinative, because even if a facility currently operates as the commenters describe, the facility would be allowed to operate otherwise under Alabama's proposed SIP revisions.

Comment 25. Commenters suggested that this 22 percent limit ensures that the average daily opacity under the revised SIP is no greater than under the previous SIP. The commenters asserted that this fully responds to AEC's hypothesis of the "bundling of high opacity periods" and concerns about the elimination of the "40 percent cap" under the revised SIP. Further the commenters explained the use of a daily opacity limit to establish short-term equivalency is appropriate because a calendar day is the shortest period over which compliance with the PM NAAQS is measured. The commenters stated that AEC provides no supporting data on the bundling and operating data provided, which commenters believe demonstrates that bundling has not occurred.

Response 25. The Commenters' statements are incomplete. While the 22 percent limit does serve the purpose of ensuring subject sources are constrained by the same maximum allowable average daily opacity as under the previously approved SIP (as explained in EPA's 2008 final notice), these SIP revisions would allow opacity levels of up to 100 percent during exempt periods and for multiple consecutive exempt periods, neither of which was previously authorized under the SIP. The prior version of the visible emissions rule capped maximum opacity at 40 percent and limited the time at such level to only six minutes per hour. Further, whether "bundling" in fact has occurred in the past is not the focus of EPA's analysis for purposes of section 110(l).[20] As part of this reconsideration, EPA has had to re-evaluate the concept of the "22 percent daily cap" supported by the commenter. EPA has concluded that even with an "average daily opacity" cap, these SIP revisions undermine the purpose and effectiveness of the opacity standard by allowing extended periods of high opacity. Such high opacity can be indicative of problems with control device operation or other circumstances potentially leading to increased mass emissions. Given that some sources affected by the opacity limits at issue in the SIP revisions are located within designated nonattainment areas, EPA concludes that this likelihood of increased emissions renders the Submittals unapprovable under section 110(l).

Comment 26. Commenters argued that the equivalency between the previous and revised SIPs, with respect to the short-term and long-term emission rates, will ensure that there will be no interference with NAAQS notwithstanding the bundling of high opacity periods. Further, the commenters mentioned that in approving the North Carolina SIP revision for visible emissions, EPA concluded that such bundling through the "elimination of the current restriction of no more than one six minute exception period per hour" does not "pose a problem for purposes of Section 110(l)." Commenters cite to 70 FR at 61558 for support.

Response 26. As EPA explained earlier in this final action, the North Carolina opacity revisions are not analogous to Alabama's opacity revisions for the main reason that Alabama's revisions allow for periods of opacity up to 100 percent, whereas the North Carolina revision retained the same maximum opacity of 40 percent. The allowance for this high opacity level, along with the lengthy time allowed for elevated opacity (up to 2.4 consecutive hours), was not present in the North Carolina case.

Comment 27. Commenters argued that plant operating data confirm that the bundling of high opacity periods does not occur in practice. Further, the 22 percent cap resolves any concerns regarding the bundling were it to occur.

Response 27. EPA appreciates commenters' information on actual operations; however, as explained previously EPA's analysis under section 110(l) focuses on what the revised SIP rules would allow. Further, as discussed above, the 22 percent cap does not resolve EPA's concerns about extended periods of very high opacity.

Comment 28. Commenters argued that the rule really has nothing to do with air quality, and that if it did, EPA would have to justify and explain why it is proposing to condemn an opacity rule that is numerically more stringent and that has fewer exemptions than many other states' opacity rules.

Response 28. EPA does not agree with commenters' statements. Alabama's visible emissions rule is part of Alabama's EPA-approved SIP, and part of its plan to attain and maintain the PM NAAQS. As a result, any revision of the EPA-approved opacity rules is subject to evaluation under section 110(l) of the CAA. Furthermore, the extended consecutive periods of opacity exemptions allowed renders this standard uniquely less stringent than any other EPA-approved opacity rule.

Comment 29. Commenters argued that the daily opacity limit is neither necessary for approval nor unlawful. According to the commenters, because EPA's proposed approval was not based on a finding that the rule would not allow any more PM during a 24-hour period than the old rule, it is not necessary for the daily limit to meet such a criterion.

Response 29. EPA disagrees that the potential for more PM emissions as a result of elevated opacity is not germane to this action. EPA's prior approval of the SIP revisions was based on uncertainty about whether the revisions

[20] The SIP revisions at issue have been under reconsideration since before the changes to Alabama's visible emissions rule now being disapproved went into effect; thus, the data submitted in public comments may not be a representative random sampling of the long-term effects of the rule.

to the opacity standard would allow more PM emissions during a 24-hour period. EPA would not have previously proposed approval if the record clearly demonstrated that the rule would have resulted in increased PM in nonattainment areas. After reviewing public comment and the State's revised submissions, EPA based its prior approval in part on the average daily opacity limit included in the revision. At that time, EPA accepted certain assumptions, including that the 22 percent daily opacity limit would serve to lessen the potential for elevated emissions of PM associated with the increases in opacity. Following EPA's reconsideration and review of information submitted to EPA, EPA no longer accepts that the average daily opacity limit is an appropriate or effective tool for evaluating the impact of the Submittals on PM emissions. Given EPA's position that there is a sufficient likelihood of increased PM emissions associated with the elevated opacity allowed under the SIP revisions, the Submittals are not approvable under 110(l).

5. Attainment and Maintenance of the PM NAAQS (PM_{10} and $PM_{2.5}$) and Data Submitted in Response to October 2009 Reconsideration Proposal

Comment 30. Commenter argued that while the Clean Air Fine Particle Implementation Rule requires that direct $PM_{2.5}$ emissions be addressed in $PM_{2.5}$ attainment demonstration SIPs, the primary thrust of the regulation is the control of precursor compounds and not direct $PM_{2.5}$ emissions. According to the commenters, if the Alabama attainment plans are similar to those of Tennessee in that sulfates are identified as the main contributor to fine particulate matter and reliance is being placed on reductions of sulfur dioxide (SO_2) to demonstrate compliance, with no measure specified for stationary direct $PM_{2.5}$, then the Petitioners' assertion that approval of the Alabama SIP revisions would adversely affect $PM_{2.5}$ attainment or RFP has no merit and should be rejected. The commenters explained that if this is the case then the Petitioner's assertion that approval of the Alabama SIP revisions would not be consistent with sections 110(l) and 193 of the CAA should also be rejected as having no merit unless it can be demonstrated that a fixed source of direct $PM_{2.5}$ is a significant contributor to a nonattainment area. Additionally, according to the commenters, this should be an adequate affirmative demonstration that the requirements of sections 110(l) and 193 of the Act are not an issue. Further, the commenters asserted that even for areas achieving conformance with the $PM_{2.5}$ ambient standard, for which no SIP would be required, the effect of the reductions of $PM_{2.5}$ precursors would be so dominant as to negate any changes to direct $PM_{2.5}$ emissions.

Response 30. As was explained earlier, given that ADEM did not submit a full attainment demonstration specifically addressing this rule and did not propose any offsetting reductions to compensate for emission increases in nonattainment areas, EPA's analysis is necessarily focused on the comparison between the previous EPA-approved version of the visible emissions rules and the revisions that the State seeks, in order to ensure that the revision would not allow an increase in emissions of pollutants that would interfere with attainment or maintenance of the NAAQS, or with other requirements of the CAA. A primary consideration, therefore, is whether the revisions could result in increases in emissions of a type for which the area where the source is located is designated nonattainment. In this context, EPA must evaluate the relative stringencies of the two versions of the opacity rules, as was explained earlier.

EPA notes that the commenter's arguments here are premised upon what might or might not be appropriate in the context of a nonattainment SIP for certain pollutants in an area. EPA does not agree that the implementation regulations for the 1997 $PM_{2.5}$ NAAQS are designed or intended to ignore direct $PM_{2.5}$ emissions from sources, and evaluation of controls for such emissions is a required element of such a SIP. While it may be correct that a nonattainment SIP in a particular area might be designed to focus upon emissions of SO_2 and nitrogen oxides, or other $PM_{2.5}$ precursors, as an attainment strategy, it does not follow that emissions of $PM_{2.5}$ from the sources subject to Alabama opacity rule do not impact attainment and maintenance of these NAAQS. Considerations mentioned by the commenters might be relevant in the evaluation of the attainment demonstration accompanying a nonattainment SIP for the 1997 $PM_{2.5}$ NAAQS, but they are not relevant in the context of a section 110(l) analysis.

Comment 31. Commenters argued that Alabama's revised SIP for visible emissions is a small piece in the overall PM attainment puzzle. According to the commenter, any incremental primary $PM_{2.5}$ emissions increase as a result of revising the SIP, assuming for purposes of argument that such an increase occurs, would be an inconsequential contributor to the $PM_{2.5}$ attainment status against the background of the significantly greater secondary $PM_{2.5}$ (sulfate and nitrate) contributions. The commenter asserted that viewed in this broader context, EPA could reasonably conclude, based on the equivalency demonstration, that the revised SIP is consistent with the earlier SIP.

Response 31. The comment fails to appreciate EPA's limitations in reviewing SIP revisions, as described in section 110(l). In addition, EPA did not receive an "equivalency demonstration" from ADEM that addressed all the elements in section 110(l). Further, an increase of PM emissions by any increment would make it more difficult for areas in Alabama to attain and maintain the NAAQS. EPA has considered the SIP as a whole, and concludes that the potential increase renders the revisions not approvable.

Comment 32. Commenters explained that following new data collected under the current SIP confirms that EPA's prior analysis was sound:

A. New data collected under the current SIP shows there is no "bundling;"

B. New data collected under the current SIP shows that daily opacity has improved; and

C. New data collected under the current SIP shows why the rule makes sense.

Response 32. EPA appreciates the submission of these data. EPA disagrees, however, with the conclusions that the commenters draw from the data. The commenters' focus on what is actually happening with respect to "bundling" and opacity levels fails to consider what could happen under the SIP revision. EPA's analysis pursuant to section 110(l) must focus on the differences between the two versions of the visible emissions rules in terms of what they would allow and not on the choices individual facilities may have made to date in terms of opacity and PM emissions. Thus, EPA does not agree that the data presented by commenters support approval of the Submittals. The commenters did not, unfortunately, submit data to establish what the PM mass emissions were during periods of elevated opacity at these sources.

Comment 33. Commenter saw no basis for the supposition that Alabama's opacity rule revisions will affect PM NAAQS compliance. The commenters asserted that as indicated in the attachments, PSEC's Lowman Unit 1's opacity compliance continues to be very good. Additionally, the commenters explained that annual particulate emission testing in 2008 and 2009 indicate PM emissions well below the

standard and show no difference before and after the opacity rule revisions.

Response 33. EPA acknowledges that some facilities affected by the SIP revisions may be operating at opacity levels below those required by the Alabama SIP. Indeed, a source that is well-controlled, well-maintained, and well-operated could achieve opacity levels well below 20 percent. However, EPA's obligation under section 110(l) is to consider how a facility could operate under the new rule—not how it typically operates or has historically operated. Moreover, EPA notes that annual PM testing offers valuable but limited information about mass emissions because the testing occurs only once per year for a limited period of time. The question not addressed by the comments is what the PM mass emissions would be, were a source to be operating at the 100 percent opacity for 2.4 hours contemplated by the SIP revision at issue.

Comment 34. Commenters asserted that there are no new data that would support EPA's withdrawal of its approval of the rule.

Response 34. As was discussed previously, EPA's authority to reconsider a SIP revision is not limited only to circumstances where there are new data. EPA has already explained in today's action why its prior approval was not consistent with the purposes of section 110(l), and that reconsideration and disapproval is appropriate. Notably, the reconsideration was initiated before the revised rule went into effect and that sources should be capable of complying with either rule or both rules simultaneously.

In addition, EPA disagrees that no new information supports this disapproval. A number of commenters have submitted data and information that, while not directly addressing the questions that EPA posed, nevertheless help to illustrate the problems with the SIP revisions. For example, information submitted by AEC suggests that at least some sources, under some conditions, could have increased PM emissions during the longer periods of higher opacity that would be permissible under the revised visible emissions rules in the Submittals. *See* Comment Letter from George E. Hays and attachments (on behalf of Alabama Environmental Council, among others), Docket No. EPA–R04–OAR–2005–AL–0002–0089.1. Moreover, many of the commenters during the reconsideration process submitted comments in which their analysis suggested that there is a relationship between PM mass emissions and opacity, even if the precise correlation cannot be established without much more rigorous testing and evaluations on a source specific basis. *See* Modeling TSD. As was noted earlier, even some of the commenters opposing EPA's disapproval action identified the uncertainty in the relationship between opacity and PM mass emissions, and the possibility of the SIP revisions resulting in emission increases. *See, e.g.,* Comment Letter from Lauren E. Freeman (on behalf of the Utility Air Regulatory Group) at 4, Docket No. EPA–R04–OAR–2005–AL–0002–0086.1.

Comment 35. Commenter noted that with regard to EPA's request for information on condensable PM, COMS do not measure condensable PM, which is in a gaseous form at stack conditions.

Response 35. EPA acknowledges the response, which underscores one component of the uncertainty inherent in the relationship between opacity and PM emissions.

6. Impact of Uncertainty in These SIP Revisions

Comment 36. Commenters asserted that while EPA has consistently (and correctly) noted the uncertain relationship between opacity and PM for short-term analysis, any question regarding how this uncertainty might impact PM, in this case, has now been eliminated entirely with the addition of the 22 percent daily average requirement. Commenters further stated that ADEM's August 2008 submittal remedied any "uncertainty" question with respect to 24-hour PM by including an additional restriction on daily average opacity, so that the average daily opacity allowed under the revision is now no greater than under the previous SIP.

Response 36. EPA has shown through calculations, that the maximum allowable average daily opacity under both the previous rule and the revised rule is 22 percent. However, as discussed above, the revised visible emissions rule at issue in the SIP revisions would allow sources to operate in a manner they could not under the previous rule—including increases in opacity concentrations up to 100 percent for an extended period of time. As a result, under the revised rule, sources may now be permitted to cause much more opacity to levels that would have been a violation under the previous EPA-approved SIP rules. Such emissions include very high concentrations of excess opacity for extended periods. EPA has thus concluded that the "average daily opacity" cap provides no assurance against increased mass emissions. Indeed, as discussed above, EPA has concluded that there is a sufficient likelihood of increased mass emissions under the revisions so as to make it unapprovable under section 110(l).

Comment 37. Commenters stated that there is always some uncertainty when attainment or interference with a NAAQS is considered in a SIP process because it involves an element of prediction and reliance on modeling. Further, commenters explain their positions that section 110(l) does not require absolute certainty and EPA should not substitute "could" for "would" in the 110(l) context.

Response 37. EPA agrees the Act does not require attainment demonstrations or other technical analysis of impacts on attainment or maintenance of the NAAQS to an "absolute certainty." However, to make a determination that the NAAQS will not be adversely impacted, EPA must at least be able to reach the conclusion that this is most likely the case. In this action, EPA is relying on what is known about the relationship between opacity and PM emissions to conclude that the State's revised visible emissions rules in the Submittals is less stringent than the previous EPA-approved rule, and that the likely increases in emissions of PM at affected sources would be inconsistent with section 110(l). Under the revised rule, a source could exceed its 20 percent opacity limit for well over an hour (up to 100 percent opacity). In contrast, the previous SIP-approved rule allowed only one occurrence per hour of a 6-minute average opacity above 20 percent (and only up to 40 percent). Control equipment that is effective enough to avoid a second occurrence of 6-minute average opacity above 20 percent will make even the first occurrence an infrequent event. Likewise, control equipment and operating procedures that are effective enough to enable a unit to meet the requirements of the previous SIP will also allow a lesser quantity of PM emissions than control equipment and operating procedures that are sufficient to comply with the current SIP revision but do not necessarily enable a unit to comply with the previous SIP rule.

In addition, contrary to the commenters' belief, this is not dependent upon replacing the word "would" with the word "could." EPA's conclusion is that available evidence indicates that some of the affected sources would have increases in PM emissions, and that these emissions would occur in locations where such increased emissions would interfere with attainment and maintenance of the NAAQS. Commenters evidently misconstrue "uncertainty" about the

precise amount of such likely emissions increases as evidence that no such increases could occur.

Comment 38. Commenters raised concerns regarding PM CEMS technology, and the representativeness of PM emissions data obtained during Performance Specification (PS) 11 testing. *See* 40 CFR part 60, Appx. B. Briefly, the commenters asserted that PS 11 correlation testing, which requires disabling of PM control devices under artificial conditions in order to obtain sufficient variability in PM emissions to satisfy the PS 11 statistical criteria, rarely provide data representative of actual operations or control device malfunctions. Commenters also noted that it would not make sense to require sources to spend money to install PM CEMS or to perform periodic performance tests in order to develop a source-specific correlation between opacity and PM.

Response 38. EPA disagrees with the commenter's views regarding PM CEMS technology and PS 11 testing, especially in the context of evaluating the SIP revisions at issue here. The procedures of PS 11 are conducted to develop a source-specific PM emissions correlation for an individual source operating over a range of PM emissions conditions through comparison of results from PM emissions testing and PM CEMS. Note that PS–11 does not require PM control devices to be disabled. Those PM measurement and testing correlation procedures differ from an opacity and PM emissions correlation, which is the fundamental issue requiring resolution for addressing the visible emissions rules revision in Alabama's Submittals. EPA also disagrees that use of PM CEMS or periodic performance testing could be "nonsensical" in determining a source-specific correlation between opacity and PM emissions. Indeed, as EPA has previously explained, source-specific approaches such as concurrent opacity and PM emissions measurements may be one way to determine "* * * any useful and definitive relationships between stack particulate mass emissions values and their corresponding opacity levels * * *" 73 FR 60962 (October 15, 2008).

EPA agrees that data obtained over a range of operating and control device conditions would be necessary to develop a site-specific correlation between opacity and PM emissions and that a single, site-specific correlation should not be extrapolated to other sources. Retaining Alabama's original visible emissions rule (the pre-October 15, 2008, final rule) relieves ADEM (and affected sources) from performing an assessment of increased source opacity on PM emissions.

Comment 39. Commenters suggested that the source-specific nature of the opacity/PM relationship does not mean that the uncertain impact of a particular change in an opacity rule can be resolved by requiring source-specific testing.

Response 39. EPA agrees that a well-designed data collection program should be able to reduce to acceptable levels, if not eliminate, most of the uncertainty associated with the relationship between PM emissions and opacity resulting from changing opacity limits. However, as the commenters themselves argue, the variability in the relationship between PM emissions and opacity limits is such that, absent the use of PM CEMS, source specific evaluation would be one way to determine the impacts of the change at a given source. EPA through this disapproval is not determining that the only means to revise an opacity standard is through source by source evaluation, nor is EPA requiring that with today's action.

Comment 40. Commenters argued that to the extent that EPA seeks information on PM compliance methods in order to assess the costs of requiring Alabama to impose more source-specific PM testing in order to evaluate the impact of its revised opacity rule, commenters disagree that such an evaluation is required under CAA 110(l).

Response 40. EPA agrees that an assessment of the cost of a potential requirement for source-specific testing is not necessary pursuant to section 110(l). In order to fully provide the public with an opportunity to comment on the proposed action, EPA sought specific information, including costs, to assist the public in identifying what information might be useful to EPA. EPA has already explained how it considered the SIP revisions and the basis for its final action.

7. Applicability of CAA Sections 110(l) and 193 to This Action

Comment 41. Commenters stated that because EPA correctly found the revisions would not interfere with the attainment or maintenance of the NAAQS or any other requirement of the CAA, section 110(l) concerns are not implicated. The commenters stated that as long as a SIP revision does not "interfere with" air quality (*i.e.,* make it worse), EPA must approve it. According to the commenter, Alabama's rule is consistent with the development of an overall plan for attainment, in that all of the sources subject to the Rule are also subject to various other programs and requirements that EPA has approved to ensure the NAAQS are protected.

Response 41. Commenters' focus on "air quality" is a good point—and was EPA's primary concern as well. EPA's action in this case focuses on the known differences between the previous EPA-approved SIP rules and the SIP revisions in the Submittals, and what is known regarding the technical aspects of the relationship between opacity and PM mass emissions. Specifically, that the revised rule allows extended periods of much higher opacity that were not previously authorized. EPA has concluded that available evidence indicates that the revised rule could result in more emissions, and thus interfere with attainment and maintenance of the NAAQS, to use the commenters' term, "make it worse." Further, for older facilities (such as the ones subject to the visible emissions rule at issue), particularly those that are less controlled, opacity can be an important indicator of operation and control device performance, which, in turn, can affect air quality. In this context, and lacking reliable scientific correlations between opacity emissions and PM NAAQS violations, EPA has concluded that the rule changes described in the Submittals are not approvable under section 110(l).

With respect to the commenters' argument that other regulatory programs exist to help insure attainment and maintenance of the NAAQS, EPA agrees. However, for the sources affected by the visible emissions rules at issue, the opacity standards provide an important tool to assure compliance with these other measures. The mere existence of a regulatory framework to provide for the attainment of the NAAQS does not negate the need for effective tools to assure that the framework succeeds.

Comment 42. Commenters stated that unless ADEM relied upon the opacity standard to comply with the PM NAAQS, section 110(l) considerations do not come into play. The commenters further stated that in this case, Alabama did not rely on the opacity standard to demonstrate attainment of the PM NAAQS.

Response 42. Alabama's visible emissions rule is part of Alabama's plan to attain and maintain the NAAQS, and it is in the EPA-approved SIP (and has been for a long time). Any revision to the SIP is subject, by the plain text of the CAA, to the requirements of section 110(l).

Comment 43. Commenters stated that EPA's October 2008 approval applied and satisfied the correct CAA section 110(l) standard. According to the

commenters, EPA is not required to re-examine the adequacy of the level of reductions provided in a plan that has already achieved attainment, or speculate how a requested SIP revision might fit into the mix of controls that may be chosen by the state to support a future attainment demonstration with respect to a new standard. The commenters argued that EPA's review under CAA section 110(l) only needs to address whether the revision would affect the status quo. EPA could have (and in commenters' view, should have) limited its review to whether the revision interfered with the requirement to assess good O & M of PM control equipment between PM stack tests. Further the commenters asserted that because Alabama did not rely on a short-term opacity/PM relationship to support its previously approved PM attainment demonstration, EPA was not required to analyze changes in the opacity standard for equivalency under section 110(l).

Response 43. EPA does not agree with commenters' characterization of EPA's obligation under section 110(l). As a point of clarification, Alabama has several nonattainment areas, including $PM_{2.5}$ nonattainment areas. The State's visible emissions rule applies to a group of stationary sources Statewide—it does not apply only in designated attainment areas. Thus, EPA does not agree with commenters' argument that because Alabama is currently attaining some NAAQS, EPA's consideration under section 110(l) should be different. Further, as was noted earlier, in the absence of an attainment demonstration regarding the rules at issue, EPA can approve a SIP revision for a nonattainment area only if EPA finds that it will not worsen air quality by increasing emissions of a nonattainment pollutant, and it is otherwise consistent with attainment and maintenance of the NAAQS. Even accepting the commenters' argument that the opacity standard is intended to be a gauge of good O & M of a source, the SIP revisions contemplated in the Submittals raise concerns because the revisions allow facilities to emit up to 100 percent opacity for extended periods of time—which is hard to square with the need to assure good source operation. Indeed, other commenters have asserted that opacity at such levels is the equivalent to turning off any relevant control device for an extended period of time. Even under what EPA understands commenters' argument to be, the SIP revisions present serious concerns about good O & M and would not be approvable.

Comment 44. Commenters explained their view that 110(l) does not impose on states a requirement to "demonstrate" that each proposed revision will not interfere with attainment or require EPA to reject each revision that presents "some remote possibility for interference." Commenters cited to *Kentucky Resources Council (KRC), Inc.* v. *EPA,* 467 F.3d 986, 994–95 (6th Cir. 2006) for support.

Response 44. Section 110(l) prohibits any SIP revision that would have the effect of interfering with attainment or maintenance of the NAAQS, RFP, or any other requirements of the CAA. Typically, states elect to provide the requisite information necessary to establish that their intended SIP revisions would not have any of these effects. EPA often works with states to evaluate the effects of a given SIP revision. In the final analysis, however, EPA is not authorized to approve any SIP revision that has such effects.

When, as here, available information indicates that the SIP revision at issue could result in the increase in PM emissions at some sources located in or near designated PM nonattainment areas, EPA has concluded that the SIP revision is not approvable and that residual uncertainty about the precise amount of additional PM emissions that would be associated with the dramatic increases in opacity does not render the revision approvable.

Commenters' citation to *KRC,* 467 F.3d 986, is misplaced because the case supports EPA's disapproval action. In that case, the Sixth Circuit considered an EPA action approving revisions to the Kentucky SIP regarding Kentucky's inspection and maintenance (I/M) program that removed the requirement from the active portion of Kentucky's SIP. The Court explained that Congress did not intend for EPA to "reject each and every SIP revision that presents some remote possibility for interference. Thus, where the EPA does not find that a SIP revision would interfere with attainment, approval of the revision does not do violence to the statute." *KRC* at 994. The Court upheld EPA's view that:

> As long as actual emissions in the air are not increased, EPA believes that equivalent (or greater) emissions reductions will be acceptable to demonstrate non-interference. EPA does not believe that areas must wait to produce a complete attainment demonstration to make any revisions to the SIP, provided the status quo air quality is preserved.

KRC at 995 (quoting a prior SIP action, 70 FR 28,429, 28,430 (May 18, 2005)). During the course of the SIP revision at issue in that case, EPA informed Kentucky of the need to demonstrate equivalent offsetting reductions due to the existing nonattainment areas in Kentucky. Kentucky responded by adopting additional control requirements into its SIP programs which were sufficient to offset the increased emissions anticipated as a result of removing the I/M program from the active SIP. This type of equivalency analysis was not provided by Alabama and we cannot conclude in this case that the status quo air quality will be maintained. Rather, in the case of Alabama, EPA judges that there is more than a remote possibility for increased emissions under the SIP revision and that our current action is consistent with the *KRC* case.

Comment 45. Commenters make a distinction between attainment and nonattainment areas for purposes of a 110(l) analysis. Commenters appear to suggest that because Alabama had no outstanding nonattainment plans due in the time frame of the October 15, 2008, final rule, that the 110(l) analysis should address whether the revision would affect the status quo.

Response 45. EPA agrees that the 110(l) analysis for a nonattainment area should, in the absence of an attainment demonstration, assure at least that the status quo is maintained. Thus, EPA will generally not approve a SIP revision that allows additional emissions of pollutants for which an area is designated nonattainment in the absence of offsetting reductions. Because EPA now concludes that Alabama's SIP revisions are likely to result in an increase in PM emissions, for which parts of Alabama are designated nonattainment, it cannot be approved consistent with section 110(l).[21] While EPA has previously required a more robust 110(l) analysis for nonattainment areas, there is still an analysis required for attainment areas. Section 110(l) applies to all SIP revisions, regardless of whether the revision is impacting attainment areas or nonattainment areas. Alabama's visible emissions rule at issue is part of Alabama's plan to attain and maintain the NAAQS. The analysis under 110(l) does not depend on what SIP revisions are currently due, although 110(l)

[21] As was discussed above, EPA also concludes that even if the uncertainty about the impact of the SIP revision on PM emissions were so great that EPA could make no technical judgment at all about the net effect of this SIP revision on PM emissions, the revision would still not be approvable under section 110(l).

requires EPA to consider other applicable requirements in the SIP.

Comment 46. Commenters explained that because they believe that there is no relationship between opacity and PM, the inquiry as to 110(l) could end there. Commenters also argued against substituting the words "could interfere" for "would interfere" in 110(l).

Response 46. EPA does not agree that there is no relationship between opacity and PM emissions. Rather, EPA concludes that there is a general relationship between opacity and PM emissions, but for a specific source and its operating characteristics, there is uncertainty about whether increases in opacity are accompanied by increases in PM emissions without examination of each source at issue. In addition, EPA does not substitute the words "could interfere" for "would interfere" in interpreting and applying 110(l). For any given source at any given time, it is accurate to say that increased opacity could be accompanied by increased PM emissions. However, in evaluating what would be allowed under the Submittals across all sources and circumstances, EPA concludes it is likely that the increased opacity allowed by the Submittals would result in increased PM emissions. EPA judges the significant increase in the flexibility in the opacity exemptions allowed to sources under the revised rule is great enough that, absent a convincing demonstration otherwise, the Agency may only conclude the revised rule hinders (*i.e.,* "would interfere" with) efforts to attain and maintain compliance with the PM NAAQS.

Comment 47. Commenters explained that changes to Alabama's Visible Emission Rule do not affect compliance with PM limits. According to the commenter, Alabama has not relied on opacity limits to demonstrate attainment with the PM NAAQS. Thus, the commenter argued that section 110(l) does not apply here at all.

Response 47. Section 110(l) applies, by its plain text, to all SIP revisions including Alabama's 2003 and 2008 Submittals. Contrary to the commenter's belief, the State has historically included the visible emissions rules in its SIP for purposes of attainment and maintenance of the PM NAAQS. The fact that the State may not have sought specific SIP credit attributable to the opacity limits (not to be confused with SIP credit for the PM limits that such opacity limits are designed to assure compliance with) does not mean that the opacity limits are not part of the SIP.

Comment 48. Commenters explained that 110(l) does not require absolute certainty regarding interference with attainment and maintenance of the NAAQS. According to the commenters, EPA has never taken that position and it would be a departure from Agency practice to take such a position. Commenters cited to *KRC* v. *EPA,* 467 F.3d 986 (6th Cir. 2006) and *Galveston-Houston Ass'n for Smog Prevention (GHASP)* v. *EPA,* 289 Fed. Appx. 745 (5th Cir. 2008). Commenters concluded that EPA cannot rely on mere uncertainty as a basis for disapproving a SIP revision.

Response 48. EPA agrees that section 110(l) does not require absolute certainty. EPA's decision today relies on certainties concerning the impacts of the revisions to Alabama's visible emissions rules in the Submittals. These certainties include that the Alabama rule would allow for increase of maximum opacity from 40 percent to 100 percent and would allow such increases for up to 2.4 hours at a time, instead of for only six minutes per hour. EPA is disapproving the revision because while there are uncertainties—such as precisely when PM mass emissions would increase or by what precise amount—EPA expects that it is likely in at least some circumstances to result in increases in PM mass emissions. EPA generally, absent an attainment demonstration or offsetting emission reductions, will not approve a SIP revision that results in increases in emissions of a pollutant for which an area is designated nonattainment pursuant to the requirements of section 110(l). EPA has already discussed the *KRC* case in a previous response. The *GHASP* case supports EPA's position in this action because that was another case where the court upheld EPA's interpretation that section 110(l) requires that a SIP revision must at least maintain status quo air quality to be approvable.

8. CAA Section 110(l) "Demonstration" of Non-Interference With the NAAQS and Other Requirements

Comment 49. Commenters argued that it is not clear what EPA means when it says that "Alabama has not provided EPA with an affirmative demonstration that the [Rule] will not interfere with the attainment and maintenance of the NAAQS" (74 Fed. Reg. at 50933), since, in the commenters' view, that is exactly what the 2008 revision adding the 22 percent daily average cap ensures. Commenters further stated that to require Alabama to provide more than the modeling of its 2003 submittal would be contrary to what the CAA requires and would be essentially asking for the impossible given the acknowledged uncertainty between opacity and PM, particularly for short-term analysis.

Response 49. EPA does not agree with the commenters' interpretation of 110(l) or characterization of what was provided to EPA. As was explained above, EPA has concluded that the interpretation of 110(l) that is most consistent with the plain text, legislative history, and air quality goals of the CAA is that in order to approve the SIP revision, there must be some reasonable basis for concluding that the SIP revision will not interfere with attainment or maintenance of the NAAQS, consistent with the requirements of 110(l). As commenters acknowledged, the evaluation for this particular SIP revision is challenging due to the inherent uncertainty in the relationship between opacity and PM mass emissions at a given source. For this reason, it is even more important that the demonstration be sufficient to ensure that EPA is complying with section 110(l).

A fundamental purpose of 110(l) is to allow SIP revisions in the absence of a full attainment demonstration provided that such revisions are consistent with continued attainment and maintenance of the NAAQS. To the extent that emission increases of a particular SIP revision cannot be modeled with some level of certainty regarding impact on the NAAQS, section 110(l) may bar that SIP revision, absent equivalent offsetting emissions reductions and in the absence of an attainment or maintenance demonstration. In EPA's judgment, the analysis submitted in connection with the SIP revisions at issue here fails to provide a reasonable basis on which to conclude that the changes would not interfere with attainment and maintenance of the NAAQS. EPA concludes that the CAA prohibits this SIP revision because air emissions could be allowed to increase and thus, worsen air quality in nonattainment areas.

Comment 50. Commenters argued that there is no basis for reversing EPA's prior analysis because the current SIP ensures opacity will be equal to or lower than that allowed under the previous SIP. Commenters further stated that EPA demonstrated mathematically that both the suggested changes in its 2007 proposal to approve the Rule and in Alabama's 2008 revisions as submitted are at least as stringent as Alabama's existing SIP and even more stringent than the 2003 revisions.

Response 50. As discussed above, EPA has concluded after reconsideration that it is not appropriate to measure the stringency of the SIP revisions in the Submittals using an

"average daily limit." Alabama's revised rule allows for extended periods of operation at high levels of opacity that were not previously authorized. Absent a showing that a source's PM emissions would not be elevated if it was permitted to have opacity at up to 100 percent for up to 2.4 hours a day, EPA has concluded that the SIP revisions would be inconsistent with section 110(l).

Comment 51. Commenters argued that Alabama has made an affirmative demonstration that the visible emissions standards in the previous SIP and the revised SIP are equivalent. Alabama's previous visible emissions rule allowed opacity of up to 40 percent for one six-minute period per hour. The revised rule allows the same maximum time of higher opacity in a single day (up to 144 minutes per day), but eliminates the 40 percent cap. To assure equivalency with the previous rule, the revised SIP limits the daily average opacity to less than 22 percent. The basis for derivation of the 22 percent limit was clearly set out in EPA's final rule. 73 FR at 60958–59 (October 15, 2008).

Response 51. As explained above, as a result of this reconsideration EPA disagrees that the two versions of the visible emissions rules could be equivalent, as explained in detail in the Rule Comparison TSD included in the docket. Ultimately, if the impacts of the two versions were actually equivalent, there would be no reason for Alabama to seek the SIP revisions. The practical reality is that the revised rule allows for opacity increases not previously authorized (both in concentration and quantity of time). Furthermore, the rule at issue specifically affects facilities which for one reason or another are not subject to any other opacity limit—and thus this opacity limit is particularly important both for air quality and as an indicator of facility O & M. While EPA understands the commenters' concerns, EPA does not agree that the two versions of the visible emissions rules are equivalent.

Comment 52. One commenter stated that EPA's approval was entirely consistent with section 110(l). According to the commenter, EPA made an "appropriate inquiry" under section 110(l) to protect the NAAQS because it made an equivalency determination and did not rely solely on uncertainty as a basis for the approval. This commenter believes that any uncertainty is erased by the 22 percent cap.

Response 52. EPA's October 15, 2008, final action relied heavily on the uncertainty inherent in the relationship between opacity and PM mass emissions. The October 15, 2008, action was different from other 110(l) analyses previously completed by EPA for that reason. EPA agrees that this rule presents particularly complex technical issues but has ultimately decided that heavy reliance on uncertainty as a basis for approval is not the decision most consistent with the CAA. Section 110(l) is intended to preclude SIP revisions that could have adverse consequences for public health, and accordingly EPA thinks that it should continue to interpret the provision using a precautionary principle to ensure such public health protection in the face of uncertainty about the impacts of a SIP revision.

Comment 53. Commenters drew comparisons between Ohio's recent opacity proposal and North Carolina's previous opacity proposal and concluded that Alabama's opacity limits are far below those of other states (specifically, North Carolina and Georgia).

Response 53. EPA does not agree with commenters' assessment of opacity requirements in other states. Alabama's revised rule was unique in that it allows opacity of up to 100 percent (not allowed under the recent North Carolina revisions)—and it allows such opacity for up to 2.4 consecutive hours. Opacity revisions, by nature, require detailed case-by-case analyses. Due to the specific circumstances of a state (*i.e.,* attainment status, affected facilities, topography, etc…), it is difficult to directly compare opacity rules from state to state (or SIP to SIP). While previous opacity decisions are informative, no other state presents a circumstance totally analogous to Alabama's circumstances. In addition, EPA has proposed to disapprove comparable revisions to the visible emissions rules in the Ohio SIP for reasons comparable to those described in this final action.

9. Use of COMS and Need for Exemptions

Comment 54. One commenter argued that without a regulatory mechanism to address excess emissions reported from COMS, such as that used by Alabama, sources are vulnerable to enforcement actions for short term opacity excursions that have negligible environmental effects.

Response 54. The environmental effect of individual "short-term" opacity excursions depends upon the duration and level of such exceedances, as well as the relationship between opacity and PM emissions at the source where they occur. This is one reason why EPA has concluded that use of an "average daily opacity" cap, in which longer excursions at higher levels are allowed to be "averaged out" with periods of normal operation at lower opacity levels, does little to help reduce PM emissions. Therefore, an "average daily opacity cap" is not a sufficient basis to approve the proposed SIP revisions. Frequent recurrence of such events may reflect the need to improve source operation or emission controls in order to comply with the opacity limit, but that would be masked by the averaging effect of an average daily opacity standard.

In the case of the visible emissions rule changes at issue in these SIP revisions, some sources may have to take action to improve their opacity performance in order to comply with the previous SIP rule. Finally, today's action does not impede the State's ability to exercise its own enforcement discretion in the event that it decides a given opacity violation does not warrant such action.

Comment 55. Commenters explained that when utilizing COMS that yield opacity data for nearly 100 percent of source operating time, given the extremely short data averages utilized for opacity data (six-minute data averages), time periods of excess occur from even the best operated sources.

Response 55. EPA acknowledges that some sources may have difficulty in complying with 20 percent opacity limits 100 percent of the time, especially when events out of the source's control occur, but EPA expects that all sources can comply with the pre-existing version of the visible emissions rule that will be in place as a result of today's disapproval action. EPA expects that any unusual difficulties for specific sources would ease as sources subject to Alabama's visible emissions rule take steps to improve their opacity performance.

Comment 56. One commenter explained that 40 CFR 60.284(e) is the recognition by EPA that some type of exemption time period is necessary when opacity regulations are enforced by a continuous in-stack monitoring system and that this regulation is probably the basis of the Alabama SIP revisions. The commenter further explained its view that the "the preamble to both the NSPS (40 CFR 60.7(c)) and the MACT [maximum achievable control technology] (40 CFR 63.10(e)(3))" both state that sources required to submit reports of excess emissions from continuous in-stack monitoring systems are only required to submit summary reports of the excess emissions data and not detailed reports, provided that the total duration of excess is less than one percent of the

total operating time of the monitored source for the operating time period and that the monitor downtime is less than five percent of the total operating time of the monitored source for the reporting time period. The commenter considered these two regulations as a "de facto" recognition by EPA of [the need for] exemption time periods similar to that proposed in the Alabama SIP revisions.

Response 56. EPA disagrees with the premise of the comment, as it misses the mark concerning what is relevant in the context of a SIP revision for purposes of section 110(l). The NSPS and SIPs serve different purposes under the CAA. The NSPS are industry-specific nationally uniform air emission standards that limit the amount of emissions allowed from new sources or from modified existing sources. They are technology-based standards, meaning that they contain industry-specific limitations based on the best available technology. Under section 111 of the CAA, a standard of performance must reflect the degree of emission limitation and the percentage reduction achievable through application of the best technological system of continuous emission reduction that the Administrator determines has been adequately demonstrated. Such determinations take into consideration the cost of achieving such emission reduction and any non-air quality health and environmental impact and energy requirements. The fact that such standards contain various reporting requirements about excess emissions does not address the issues relevant to an analysis to support a SIP revision.

SIPs are EPA-approved state plans for the establishment, regulation, and enforcement of air pollution standards—the NAAQS. Under section 110 of the Act, each state must adopt a plan to provide for implementation, maintenance, and enforcement of the primary and secondary NAAQS within the state. Because SIPs serve a different purpose than the NSPS, EPA evaluates them differently. For example, the NSPS provide exemptions from compliance during brief periods such as startup, shutdown, and malfunctions (SSM). Such automatic exemptions are not appropriate for SIP rules because SIPs are ambient-based standards and any emissions above the allowable may cause or contribute to violations of the NAAQS. Generally, because SIPs must provide for attainment and maintenance of the NAAQS and the achievement of prevention of significant deterioration increments, EPA's policy is that all periods of excess emissions must be considered violations. SIPs can contain regulations with affirmative defenses for violations that occur due to events not reasonably within the control of the source, but they should not contain automatic exemptions. EPA's policy with respect to appropriate SIP provisions is contained in the 1999 memorandum entitled "*State Implementation Plans (SIPs): Policy Regarding Excess Emissions During Malfunctions, Startup, and Shutdown.*"

Comment 57. Commenters explained that despite its best efforts, continuous compliance with the 20 percent opacity limit is an unachievable goal, and imposing penalties for failing to achieve an unattainable goal does not promote continuous, long term environmental improvement.

Response 57. EPA's final action does not impose penalties or implicate any specific enforcement actions. Rather, it simply finds that Alabama's revisions to its visible emissions rule are not approvable under section 110(l) of the CAA. EPA encourages the commenter to discuss specific compliance concerns with ADEM. Sources should generally be capable of complying with the Alabama opacity rule, but we remain open to considering further SIP revisions that provide greater assurance that PM emissions will not increase as a result.

10. Relationship of SIP Revisions to 40 CFR 51.212

Comment 58. Commenters argued that the visible emissions rule in the revised SIP is appropriate under 40 CFR 51.212(b). Some commenters also discussed that the "indirect" use of COMS for compliance determinations adopted by Alabama and many other states is based on the approach adopted by EPA under the NSPS, which also specify Method 9 as the compliance method but require reporting of COMS data as an indicator of good control device O & M. The commenters asserted that because ADEM's rule continues to use COMS data as an indicator of good O & M, but now simply provides an option for its use "directly * * * for compliance determinations," respecting the independently enforceable opacity limit as allowed under Appendix P, the rule continues to meet EPA's criteria. Other commenters highlighted the position that 51.212 provides states with discretion and the Alabama rule enhances enforcement through use of COMS.

Response 58. In the present action, EPA is not evaluating the approvability of the SIP revision to Alabama's visible emission rule revisions in light of the requirements of 40 CFR 51.212. While EPA agrees that this provision requires states to have SIPs with appropriate methods to assure compliance with emissions limits, EPA is not here addressing whether the revisions at issue would or would not meet those requirements. EPA's analysis for the present action focused on the section 110(l) limitations on EPA's authority to approve a SIP revision. Even if Alabama's revised visible emissions rule were consistent with section 51.212, this would not alleviate the concerns that EPA has with respect to section 110(l).

Comment 59. Commenters stated that ADEM's two percent criterion is consistent with policies developed by EPA in the 1980s to support the use of continuous monitors. Commenters noted that there is no national standard on visible emissions and ADEM's use of a flexible approach is consistent with part 51.

Response 59. In the present rulemaking, EPA is not articulating a position on ADEM's enforcement discretion or policies regarding enforcement discretion, although EPA is aware of the fairly recent Eleventh Circuit Court's opinion addressing ADEM's enforcement discretion in a visible emissions context. As was explained earlier, EPA acknowledges the various comments that support ADEM's Submittals by citing to other federal requirements. However, EPA's analysis was focused on its authority under section 110, and the review of ADEM's Submittals that is most supported by the CAA.

11. Relationship of SIP Revisions to Compliance Assurance Monitoring (CAM) Rule

Comment 60. Commenters explained that although Alabama's visible emissions rule may have some role in evaluating long-term PM control device operation, it is no longer the primary means by which major sources assure compliance with SIP limits on PM. Commenters believe that this role is now filled by EPA's CAM rule at 40 CFR part 64.

Response 60. EPA's present action is not dependent upon whether the State's visible emissions rule is the "primary" means for evaluating compliance with PM limits, although that has been and continues to be a legitimate reason for such opacity limits in SIPs. EPA's present action is based primarily on its obligation under section 110(l) not to approve SIP revisions that would interfere with attainment or maintenance of the NAAQS or other applicable requirements of the CAA. EPA agrees that the CAM rule provides additional support for evaluation of

control device operation; however, CAM applicability and methodologies vary from facility-to-facility. The CAM rule is designed to provide reasonable assurance of ongoing compliance with applicable emissions limits, such as the PM emission limits of the SIP. But CAM requirements are in addition to the requirements of Alabama's visible emissions rule; as a result, the commenters' statements do not resolve whether the revisions to the visible emissions rule satisfy section 110(l).

12. Relationship of SIP Revisions to Sierra Club v. EPA, 551 F.3d 1019 (D.C. Cir. 2008), and the Vacatur of Certain Provisions in 40 CFR Part 63

Comment 61. Commenters explained that the D.C. Circuit Court's vacatur of 40 CFR part 63 provisions pertaining to SSM and its impact on the opacity SIP revision are irrelevant. Further, commenters noted that SSM provisions are not at issue in the instant SIP revision.

Response 61. EPA does not agree with the blanket statement that SSM provisions are not at issue in the instant SIP revision. As part of EPA's 110(l) evaluation, EPA may consider the SIP as a whole—including other provisions, such as SSM provisions, that may further affect the consequences of a given SIP revision. In this case, EPA's analysis focused primarily on the provisions of the visible emissions rule that the State actually sought to change in the Submittals. However, EPA may consider the entirety of a rule, and the SIP, in completing a 110(l) analysis.

13. Relationship of SIP Revisions to Reasonably Available Control Technology (RACT)

Comment 62. Commenters explained that the Submittals on opacity are not required to comply with RACT and that there is no requirement for EPA to review "unrelated SIP revisions requests" for future RACT compliance. Moreover, commenters stated that when Alabama does submit a SIP revision to address RACT, EPA is not compelled to require that revision to establish any particular opacity standard. Another commenter stated that Alabama's revised SIP imposes the proper opacity RACT standard. Several commenters noted that the Petitioners will have separate opportunity to challenge RACT determinations is RACT-specific rulemaking.

Response 62. RACT refers to equipment and practices that reduce pollutant emissions that are reasonably available and both technologically and economically feasible. RACT usually applies to existing sources in nonattainment areas. Since EPA has concluded that this revision is not approvable under section 110(l) for the reasons already stated, it is not necessary to determine whether Alabama has relied on opacity limits to meet its RACT obligations.

Notably, section 172 of the Act, *Nonattainment plan provisions in general,* requires nonattainment plans "shall provide for the implementation of all reasonably available control measures as expeditiously as practicable (including such reductions in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of reasonably available control technology) and shall provide for attainment of the national primary ambient air quality standards." Section 172 requirements, including RACT, are applicable requirements of the CAA which section 110(l) evaluations may consider.

Section 110(l) requires that EPA consider whether the revision at issue would interfere with the NAAQS, and any other applicable requirement concerning attainment and RFP. Thus, EPA is authorized to consider whether the revision would interfere with an area's ability to comply with RACT or other requirements in the SIP. In this case, however, EPA's review was primarily focused on interference with the NAAQS. While some applicable requirements may be subject to separate SIP revisions, as was noted by several commenters, that does not mean that EPA is prohibited from considering whether revision of a rule at issue may implicate another applicable requirement. RACT issues are likely to also be addressed separately in other SIP revisions.

14. Other Exemptions in Alabama SIP Related to Visible Emissions

Comment 63. Commenters noted that EPA's final action was not inconsistent with EPA policies on excess emissions and director's discretion.

Response 63. As was previously noted by EPA in the 2007 proposal and the October 2008, action, the director's discretion provisions under Alabama rule 335–3–4–.01(1)(c) and (d) are unchanged by the SIP revisions. As a result, periods of excess emissions allowed in a permit pursuant to those provisions remain unchanged under Alabama's rules. EPA did, however, consider Alabama's provisions for excess emissions in evaluating the rule as a whole and comparing it with the previous EPA-approved SIP rule. These types of details become relevant, particularly when parties compare Alabama's visible emissions rules with those in other states. In this action, EPA is not taking any action on Alabama's existing SIP-approved rules that implicate director's discretion and excess emissions.

IV. Final Action

EPA is taking final action to amend an October 15, 2008, final rulemaking on two SIP revisions regarding the State of Alabama's rules for visible emissions from certain stationary sources. EPA has now determined upon reconsideration that Alabama's SIP revisions, dated September 11, 2003, and August 22, 2008, are not approvable pursuant to CAA section 110(l). Accordingly, EPA is now disapproving the revisions submitted by the State of Alabama on September 11, 2003, and August 22, 2008. As a result of this action, Alabama's visible emissions rule that was in the SIP prior to the October 15, 2008, final action will be the "current" SIP-approved rule. Alabama is urged to undertake rulemaking in order to conform its SIP-approved rule with its State-effective rule.

V. Statutory and Executive Order Reviews

A. Executive Order 12866, Regulatory Planning and Review

This final action has been determined to be a "significant regulatory action" subject to review by the Office of Management and Budget (OMB) under Executive Order 12866 (58 FR 51735, October 4, 1993). Accordingly, EPA submitted this action to the Office of Management and Budget (OMB) for review under Executive Order 12866 and any changes made in response to OMB recommendations have been documented in the docket for this action.

B. Paperwork Reduction Act

This action does not impose an information collection burden under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.,* because these SIP disapprovals under section 110 will not in-and-of itself create any new information collection burdens but simply disapproves certain State requirements for inclusion into the SIP. Burden is defined at 5 CFR 1320.3(b).

C. Regulatory Flexibility Act (RFA)

The RFA generally requires an agency to conduct a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit

enterprises, and small governmental jurisdictions. For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration's regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. This rule will not have a significant impact on a substantial number of small entities because EPA understands that only one small entity will be affected by this rule. Furthermore, even if additional small entities were affected by this rule, this rule would not have a significant economic impact on any small entity because it simply restores a long-standing requirement of the Alabama SIP concerning visible emissions.

Therefore, after considering the economic impacts of today's rulemaking on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities.

D. Unfunded Mandates Reform Act

This action contains no Federal mandates under the provisions of Title II of the Unfunded Mandates Reform Act of 1995, 2 U.S.C. 1531–1538 "for State, local, or tribal governments or the private sector." EPA has determined that the disapproval action does not include a Federal mandate that may result in estimated costs of $100 million or more to either State, local, or tribal governments in the aggregate, or to the private sector. This Federal action determines that pre-existing requirements under State or local law should not be approved as part of the Federally approved SIP. It imposes no new requirements. Accordingly, no additional costs to State, local, or tribal governments, or to the private sector, result from this action.

E. Executive Order 13132, Federalism

Executive Order 13132, entitled "Federalism" (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have Federalism implications." "Policies that have Federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government."

This action does not have Federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132, because it merely disapproves certain State requirements for inclusion into the SIP and does not alter the relationship or the distribution of power and responsibilities established in the CAA. Thus, Executive Order 13132 does not apply to this action.

F. Executive Order 13175, Coordination With Indian Tribal Governments

This action does not have tribal implications, as specified in Executive Order 13175 (59 FR 22951, November 9, 2000), because the SIP EPA is disapproving would not apply in Indian country located in the State, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law. This final rule does not have tribal implications, as specified in Executive Order 13175. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes. This action does not involve or impose any requirements that affect Indian Tribes. Thus, Executive Order 13175 does not apply to this action.

G. Executive Order 13045, Protection of Children From Environmental Health Risks and Safety Risks

EPA interprets Executive Order 13045 (62 FR 19885, April 23, 1997) as applying only to those regulatory actions that concern health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the potential to influence the regulation. This action is not subject to Executive Order 13045 because it is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997). This SIP disapproval under section 110 will not in-and-of itself create any new rules but simply disapproves certain State requirements for inclusion into the SIP.

H. Executive Order 13211, Actions That Significantly Affect Energy Supply, Distribution, or Use

This action is not a "significant energy action" as defined in Executive Order 13211 (66 FR 28355 (May 22, 2001)), because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. We have concluded this rule is not likely to have a significant adverse effect on the supply, distribution or use of energy because this rule applies only to 19 facilities in Alabama and simply restores a long-standing rule concerning visible emissions.

I. National Technology Transfer and Advancement Act (NTTAA)

Section 12(d) of the NTTAA of 1995 (NTTAA), Public Law 104–113, section 12(d) (15 U.S.C. 272 *note*) directs EPA to use voluntary consensus standards (VCS) in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. VCS are technical standards (*e.g.,* materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by VCS bodies. NTTAA directs EPA to provide Congress, through the OMB, explanations when the Agency decides not to use available and applicable VCS.

EPA believes that this action is not subject to requirements of Section 12(d) of NTTAA because application of those requirements would be inconsistent with the CAA. Today's action does not require the public to perform activities conducive to the use of VCS.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898 (59 FR 7629, (February 16, 1994)) establishes Federal executive policy on environmental justice. Its main provision directs Federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

EPA lacks the discretionary authority to address environmental justice in this action. In reviewing SIP submissions, EPA's role is to approve or disapprove State choices, based on the criteria of the CAA. Accordingly, this action merely disapproves certain State requirements for inclusion into the SIP

under section 110. Accordingly, it does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898.

K. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.,* as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register.** A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2). This rule will be effective May 6, 2011.

L. Petitions for Judicial Review

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 June 6, 2011. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule 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* CAA section 307(b)(2).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Dated: March 29, 2011.

Gwendolyn Keyes Fleming,

Regional Administrator, Region 4.

40 CFR part 52 is amended as follows:

PART 52—[AMENDED]

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

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

Subpart B—Alabama

■ 2. Section 52.50(c) is amended by revising the entry for "Section 335–3–4–.01" to read as follows:

§ 52.50 Identification of plan.

* * * * *

(c) * * *

EPA-APPROVED ALABAMA REGULATIONS

State citation	Title/subject	State effective date	EPA approval date	Explanation
*	*	*	*	*
Section 335–3–4–.01	Visible Emissions	10/15/1996	4/6/2011 [Insert citation of publication].	
*	*	*	*	*

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[FR Doc. 2011–8032 Filed 4–5–11; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R05–OAR–2010–0259; FRL–9285–4]

Approval and Promulgation of Air Quality Implementation Plans; Ohio; Volatile Organic Compound Emission Control Measures for Lithographic and Letterpress Printing in Cleveland

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: EPA is approving into the Ohio State Implementation Plan (SIP) revisions to its previously approved offset lithographic and letterpress printing volatile organic compound (VOC) rule. These rule revisions specify compliance dates for subject facilities using an add-on control device and recordkeeping requirements when a recipe log is maintained for each batch of fountain solution or cleaning solution. These rule revisions satisfy the requirements of reasonably available control technology (RACT) and the Clean Air Act (CAA). EPA proposed these rules for approval on December 30, 2010, and received no comments.

DATES: This final rule is effective on May 6, 2011.

ADDRESSES: EPA has established a docket for this action under Docket ID Nos. EPA–R05–OAR–2010–0259. All documents in the docket are listed on the *http://www.regulations.gov* Web site. Although listed in the index, some information is not 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 *http://www.regulations.gov* or in hard copy at the Environmental Protection Agency, Region 5, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604. This facility is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding Federal holidays. We recommend that you telephone Steven Rosenthal, Environmental Engineer, at (312) 886–6052 before visiting the Region 5 office.

FOR FURTHER INFORMATION CONTACT: Steven Rosenthal, Environmental Engineer, Air Planning and Maintenance Section, Air Programs Branch (AR–18J), Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, (312) 886–6052.

SUPPLEMENTARY INFORMATION: Throughout this document whenever "we," "us," or "our" is used, we mean EPA. This supplementary information section is arranged as follows:

I. What public comments were received on the proposed approval and what is EPA's response?
II. What action is EPA taking today and what is the purpose of this action?
III. Statutory and Executive Order Reviews