ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R04–OAR–2005–AL–0002–200623; FRL–8298–1]

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

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: EPA is proposing to approve the Visible Emissions portion of the State Implementation Plan (SIP) revision submitted to EPA, by the Alabama Department of Environmental Management (ADEM), on September 11, 2003 (the ''2003 ADEM submittal''), provided it is revised as described in this action and submitted as a SIP revision. The open burning portion of the submittal was previously approved in a separate action on March 9, 2006 (71 FR 12138).

DATES: Comments must be received on or before June 11, 2007.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–R04–OAR–2005–AL–0002, by one of the following methods:

(a) *www.regulations.gov:* Follow the on-line instructions for submitting comments.

(b) *E-mail: harder.stacy@epa.gov.*

(c) *Fax:* 404–562–9019.

(d) *Mail:* ''EPA–R04–OAR–2005–AL–0002,'' 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.

(e) *Hand Delivery or Courier:* Stacy Harder, Regulatory Development Section, Air Planning Branch, Air, Pesticides and Toxics Management Division, 12th floor, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW., Atlanta, Georgia 30303–8960. Such deliveries are only accepted during the Regional Office's normal hours of operation. The Regional Office's official hours of business are Monday through Friday, 8:30 to 4:30, excluding federal holidays.

Instructions: Direct your comments to Docket ID No. ''EPA–R04–OAR–2005–AL–0002.'' EPA's policy is that all comments received will be included in the public docket without change and may be made available online at *http://www.regulations.gov*, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit through www.regulations.gov or e-mail, information that you consider to be CBI or otherwise protected. The www.regulations.gov Web site is an ''anonymous access'' system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through www.regulations.gov, your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket visit the EPA Docket Center homepage at *http://www.epa.gov/epahome/dockets.htm.*

Docket: All documents in the electronic docket are listed in the www.regulations.gov index. Although listed in the index, some information is not publicly available, i.e., 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 in 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 legal holidays.

FOR FURTHER INFORMATION CONTACT: Stacy Harder, 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. The telephone number is (404) 562–9042. Ms. Harder can also be reached via electronic mail at *harder.stacy@epa.gov*.

SUPPLEMENTARY INFORMATION:

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I. What Action Is EPA Proposing?

EPA is proposing an approval, under Section 110(k) of the Clean Air Act (CAA), of the Visible Emissions portion of the Alabama SIP revision submitted on September 11, 2003. This proposed approval is contingent upon Alabama submitting a revised SIP submission addressing EPA's concerns regarding impacts of the rule changes on attainment of the National Ambient Air Quality Standards (NAAQS). Because the necessary revisions would materially alter both the existing SIP approved rule and the submitted revision, the State must make a SIP submittal to effect the changes noted by EPA below. As with any SIP revision, the State must provide public notice of and a public hearing on the proposed changes. If, after consideration of public comments, EPA determines the revised SIP submission meets the requirements of the CAA and is consistent with the recommended changes outlined in this action, the Agency may proceed to publish its approval of the revised SIP in the **Federal Register**. Alabama's revised submittal must be consistent with the changes discussed in this action for EPA to approve its incorporation into the SIP. If the revised language does not conform specifically to the recommended changes, EPA will need to re-evaluate Alabama's submittal and, if the changes are approvable, re-propose approval of the SIP submittal.

II. Why Is EPA Proposing This Action?

EPA is taking this action in response to a request from ADEM to revise the Visible Emissions portion of Alabama's SIP rule pertaining to sources of particulate matter (PM) emissions. The request, submitted to EPA on September 11, 2003, would revise Alabama SIP rule 335–3–4–.01 (''Visible Emissions'') by amending the requirements for units

that operate continuous opacity monitoring systems (COMS) and that are not subject to any opacity limits other than those in rule 335–3–4–.01(1) (''Visible Emissions Restrictions for Stationary Sources'').

Under section 110(l) of the CAA, EPA may not approve revisions to SIPs if the revisions would interfere with any applicable requirement concerning attainment and reasonable further progress (RFP), or any other applicable requirement of the CAA. In determining whether to approve a requested revision, EPA considers the relevant impacts of the proposed change in light of the type of requirement affected by the requested revision. In this instance, the State is proposing revisions to its opacity requirements. We define opacity as the degree to which emissions reduce the transmission of light and obscure the view of an object in the background. (See 40 CFR 60.2).

A change in opacity standards may not necessarily impact on a State's ability to meet the PM NAAQS or any other applicable requirement of the Act because, as discussed further in this action, a reliable and direct correlation between opacity and PM emissions cannot be established without significant site-specific simultaneous testing of both PM emissions and opacity, particularly for short-term periods (e.g., 24 hours or less). Nonetheless, because there is at least an indirect relationship between opacity and PM emissions, including the use of opacity to track the effectiveness of PM control equipment operation, we considered the impact of Alabama's proposed revision on the NAAQS for PM10 and PM2.5, and on other applicable requirements. No changes are being proposed to revise the particulate mass limits in the Alabama SIP, and sources must continue to meet applicable emissions limits. EPA proposes to approve Alabama's revision, with our recommended changes, because we determined that, with the changes specified in this action, the SIP revision will not interfere with attainment of either of the PM NAAQS or with other applicable requirements.

III. What Is the Rationale for This SIP Revision?

Monitoring opacity by use of COMS provides far more data than EPA Reference Method 9, the compliance determination method specified by most SIPs, including Alabama's. Alabama adopted into the State's regulations the rule revision contained in the 2003 ADEM submittal on August 26, 2003, and has since operated under it as a State-only enforceable provision. The purpose of that rule revision was to make the State's regulation consistent with what had been its practice in exercising enforcement discretion with respect to use of COMS data since the early 1980's.

In addition to requiring corrective actions and prompt reporting of deviations from permit terms, the State has other oversight procedures in place that ensure long, continuous periods of high opacity are properly addressed by the source. ADEM receives quarterly emissions reports from plants that utilize COMS, which indicate the opacity of the emissions from sources subject to this rule revision. ADEM reviews the information and determines if further action should be taken due to any opacity exceedances. The data is required to be in a format that includes source operating time, monitor operating time, exempt opacity exceedances, and non-exempt opacity exceedances. The reports include daily opacity exceedances as well as a summary of the data for the entire quarter. In these reports, the sources also calculate the percentage of operating time in which they had non-exempt opacity exceedances as well as the percentage of operating time with any (total of exempt and non-exempt) opacity exceedances.

ADEM has developed a program that takes the summary data from the quarterly opacity reports and calculates the percentage of source operating time that the opacity of emissions from individual units (or multiple units with a common stack) exceeded the opacity standard due to non-exempt reasons during the calendar quarter. As a check on the quarterly calculations from the source, this program also calculates the percentage of operating time that the opacity of emissions from individual units exceeded the opacity standard for any reason. With this program, ADEM compares the performance of each unit to the historical performance of that unit as well as compares it to the performance of the other units at that plant and other similar plants in the State, and the performance of the unit to the two percent threshold in the Alabama submittal. If the performance of a unit is not consistent with its historical performance or the performance of other similar units in the State, ADEM can review the daily exceedances of the opacity standard for the unit in question to determine if the exceedances were sporadic, or grouped in consecutive hours or consecutive days. ADEM may also ask the company for a detailed explanation of the exceedances (or a subset of exceedances) during the calendar quarter. If, for a source subject to the new standard, the number of unexcused opacity exceedances is in excess of two percent of the source operating time for which the opacity standard was applicable during the quarter, formal enforcement action may proceed.

Opacity limitations have typically accompanied periodic Reference Method 5 particulate matter compliance tests (Method 5 tests) in SIPs. That is, where Method 5 tests are used to demonstrate compliance with filterable PM mass emission limitations, opacity limits and associated monitoring are commonly used as an indirect monitor for PM emissions and as indicators of good PM control equipment operation during the periods between Method 5 tests. EPA has long recognized opacity monitoring as a method of ensuring proper control device operation. *See* 39 FR 9308, 9309 (Mar. 8, 1974) (NSPS Additions and Miscellaneous Amendments discussing opacity as an indicator of whether control equipment is properly maintained and operated).

With use of continuous opacity monitors it is possible to have a continuous stream of opacity data. This results in the collection of many individual, short-term opacity measurements that reflect the full range of control device operating variability and, depending upon the amount of variability, may or may not be indicative of poor operation of control equipment and excess PM emissions. For example, coal-fired power generation facilities may experience sporadic opacity exceedances caused by variations in the constituents of coal burned. The revised Alabama rule shifts emphasis from isolated six-minute periods to longer periods that are more indicative of excess PM emissions and problems with operation and maintenance of control devices. As noted above, under the proposed revised rule, with the changes discussed in this action, an emissions unit is allowed: (1) Up to 100 percent opacity during 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; (2) up to 100 percent opacity for up to two percent of the operating time on a quarterly basis (less the exempted periods approved by ADEM's Director and included in a state-issued permit), for no more than 10 percent of the time on a daily basis; and (3) up to 20 percent opacity for the rest of the time in a quarter. EPA believes this approach, along with the monitoring and oversight safeguards discussed above, make appropriate use of COMS data for ensuring compliance with PM limits.

IV. What Does the Visible Emissions Rule in the Current SIP Require, and What Changes Are Requested by ADEM?

The subject Visible Emissions rule is in Chapter 335–3–4 (''Control of Particulate Emissions'') of the Alabama SIP. The currently approved Alabama Rule 335–3–4–.01, ''Visible Emissions,'' has a generally applicable limit of 20 percent on opacity level and provides that one six-minute period per hour of up to 40 percent opacity is exempted [1] from the 20 percent limit. The Director of ADEM may also grant, as part of a permit issued by the State, exemptions to the 20 percent limit during startup, shutdown, load change and rate change or other short, intermittent periods that are in addition to the hourly six-minute 40 percent exemption. These exemptions are provided by subparagraphs (1)(b) and (1)(c), respectively. Additional exemptions for circumstances not relevant to this rulemaking are provided by subparagraphs (1)(d) [2] and (1)(e).[3] The text of the current rule reads, in relevant part, as follows:

(1) Visible Emissions Restrictions for Stationary Sources.

(a) Except as provided in subparagraphs (b), (c), (d), or (e) of this paragraph, no person shall discharge into the atmosphere from any source of emission, particulate of an opacity greater than that designated as twenty percent (20%) opacity, as determined by a six (6) minute average.

(b) During one six (6) minute period in any sixty (60) minute period, a person may discharge into the atmosphere from any source of emission, particulate of an opacity not greater than that designated as forty percent (40%) opacity.

(c) The Director may approve exceptions to this Rule or specific sources which hold permits under Chapter 335–3–14; provided however, such exceptions may be made for startup, shutdown, load change, and rate change or other short, intermittent periods of time upon terms approved by the Director and made a part of such permit.

* * * * *

[1] Alabama Rule 335–3–4–.01, ''Visible Emissions,'' provides four specific ''exceptions'' to compliance with the generally applicable opacity limit at subparagraphs 335–3–4–.01(b), (c), (d), and (e). To be consistent with more common terminology, in this notice we refer to these as ''exemptions.''

[2] Subparagraph (d) provides that ADEM's Director may approve exceptions to this Rule in the form of source-specific adjustments to the opacity standard, provided certain conditions are met demonstrating to the Director's satisfaction that, with the adjustment, the source would continue to comply with its SIP particulate matter mass emissions limit.

[3] Subparagraph (e) provides that the provisions of this Rule do not apply to combustion sources in single-family and duplex dwellings where such sources are used for heating or other domestic purposes.

(2) Compliance with opacity standards in this Rule shall be determined by conducting observations in accordance with Reference Method 9 in Appendix A, 40 CFR Part 60, as the same may be amended requiring a six (6) minute average as determined by twenty-four (24) consecutive readings, at intervals of fifteen (15) seconds each.

The 2003 ADEM submittal would add three new paragraphs, (3), (4), and (5), to Alabama Rule 335–3–4–.01 that apply only to those emissions units that use COMS for measuring opacity, that operate such systems according to Federal specifications, and that are subject only to those opacity limits of the State's SIP (*e.g.*, not subject to opacity limits under any preconstruction permit or other regulation). The revision provides that these units will not be in violation of the State's generally applicable opacity limitation if the non-exempt excess emissions periods do not exceed two percent of the source operating hours for which the opacity standard is applicable and for which the COMS is indicating valid data, on a quarterly basis. The text of the proposed change reads as follows:

(3) The conditions in paragraph (4) of this Rule apply to each emissions unit that meets all of the following requirements:

(a) A Continuous Opacity Monitoring System (COMS) is used for indication of opacity of emissions;

(b) With respect to opacity limitations, the units are subject only to the opacity provisions stated in paragraph (1) of this Rule; and

(c) The COMS system utilized is required to comply with the requirements of 40 CFR 60.13 or 40 CFR 75.14 (if applicable) and is required to be certified in accordance with the requirements of 40 CFR 60, Appendix B, Performance Specification 1.

(4) During each calendar quarter, the permittee will not be deemed in violation of Rule 335–3–4–.01(1) if the non-exempt excess emissions periods do not exceed 2.0 percent of the source operating hours for which the opacity standard is applicable and for which the COMS is indicating valid data.

(5) Nothing in paragraph (4) of this Rule shall be construed to supercede the validity of opacity readings taken under paragraph (2) of this Rule.

In summary, under the 2003 submission, sources operating COMS would not be deemed in violation of the standard where emissions in excess of the 20 percent opacity were limited to: (1) One six-minute average per hour of up to 40 percent opacity; (2) 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; and (3) no more than two percent of the remaining operating time after subtracting out all periods qualifying under the previous two instances.

V. What Changes Does EPA Recommend to the Submittal?

As described above, under the Alabama SIP, Method 9 is the method specified for determining compliance with the 20 percent opacity limit. COMS are not specified as the method to determine compliance with the numerical opacity limit, although COMS data can be credible evidence of opacity. Opacity, both as measured by Method 9 and COMS, has been used as a proxy for particulate emissions and to indicate whether a company is following good air pollution control practices. ADEM has proposed amending its SIP to allow up to two percent of COMS readings to exceed 20 percent opacity during non-exempt periods, in part since the Alabama SIP provides no other exemption from the standard for malfunction.

The use of COMS increases data availability and provides a greater degree of reliability compared to the Method 9 procedure. Nonetheless, as currently written, the revision would allow a source to emit at a higher allowable average opacity percent level (as measured by COMS in six-minute increments) on a quarterly basis as well as allowing higher short term excursions than the current approved SIP allows. Because this potential for higher average opacity on a quarterly basis could indicate an increase in particulate matter emissions, and in the absence of a supporting demonstration of compliance with CAA requirements from the State, we believe that the 2003 SIP submittal is not approvable as submitted. The submission is also not clear about whether the new opacity standard for certain sources with COMS at 335–3–4–.01(3)–(5) applies in addition to, or in lieu of, the existing opacity standard in paragraphs 335–3–4–.01(1)(a)–(b), as measured under paragraph 335–3–4–.01(2). In addition, the purpose behind new paragraph 335–3–4–.01(5) is not clear.

EPA believes the State can revise the 2003 ADEM submittal by amending it to ensure that the allowable average quarterly opacity is at least as stringent as (i.e., equal to or lower than) that allowed by the current approved SIP, and by being clear that only a single version of the standard applies to any unit (although any credible evidence of opacity could be used to assess compliance with the applicable version of the standard). Accordingly, this proposed approval is contingent upon Alabama's submission of a revised rule with certain changes. The revision

would clearly indicate that a unit is covered by either the existing opacity standard at paragraphs 335–3–4–.01(1)(a)–(b), as measured under paragraph 335–3–4–.01(2), or by the new standard established in paragraphs 335–3–4–.01(1)(a), (3)–(4), as measured by the COMS referenced in those paragraphs—but not both.[4] The revision would also provide that the hourly 40 percent exemption under Alabama rule 335–3–4–.01(1)(b) does not apply to sources subject to the new paragraphs 335–3–4–.01(3) and 335–3–4–.01(4). Thus, the 40 percent exemption for up to 24 six-minute periods per day on an hourly basis would be replaced by the generally applicable 20 percent standard. The revision would allow a source to exceed the 20 percent standard (up to 100 percent opacity) during no more than 24 six-minute periods per day. In part this revision would replace the existing provision allowing one six-minute exceedance per hour at 40 percent opacity with a provision allowing up to 24 six-minute exceedances per calendar day at 100 percent opacity. However, under the revised provision, these exceedances would be part of, not in addition to, the exceedances allowed under 335–3–4–.01(4) (*i.e.*, two percent of operating time).

Thus, under the current SIP, a source is required to maintain 20 percent opacity, except that it may emit at up to 40 percent opacity for one six-minute average per hour, and may have emissions of up to 100 percent opacity as specified in a permit. Under the 2003 submission, certain sources using COMS would, in addition to the current SIP exemptions, also be allowed emissions of up to 100 percent opacity for up to two percent of the quarterly operating time that they are otherwise subject to the 20 percent opacity limit. Under the revision proposed for approval in this notice, these sources still would be allowed emissions of up to 100 percent opacity for up to two percent of quarterly operating time that they are subject to the 20 percent opacity limit (but not to exceed 10 percent of a calendar day), and they would not be allowed the 40 percent hourly exemption.[5]

Where currently any source may exceed the opacity limit for six minutes out of every hour (*i.e.*, 10 percent of the time, on an hourly basis), under the revision EPA is proposing would be approvable, a source using COMS subject to the new standard could exceed the opacity limit for 10 percent of the time on a daily basis (*i.e.*, up to 2.4 hours of consecutive opacity exceedances per calendar day), but for only two percent of the time on a quarterly basis. Under the current standard, the 40 percent opacity limit in theory allows a source to emit a total of approximately 219 hours of emissions in a quarter at up to 40 percent opacity, if the source uses one six-minute exemption for every hour of operation. Under the proposed revision, a source would be allowed to emit no more than 44 hours of excess emissions in a quarter (and no more than 2.4 hours in a day), but those emissions could have up to 100 percent opacity.[6]

As a result, the final rule would have the potential to increase the impact of opacity exceedances on a short-term basis by allowing exceedances of up to 100 percent opacity and also allowing those periods of excess opacity to be aggregated in up to 24 consecutive six-minute periods per day (as opposed to the current approved rule which provides an hourly 40 percent exemption, also for a total of 24 six-minute periods per day). However, the long-term cap of two percent serves to restrict the total amount of time a source is allowed to exceed the standard. As discussed below, EPA believes that the reduction in total duration of exceedances will reduce average opacity as compared to the current standard, even taking into consideration that the exemption in the current standard limits exceedances to 40 percent (not 100 percent) opacity.

Thus, under the proposed revised rule, with the changes discussed in this notice, an emissions unit covered by the new standard would be allowed: (1) Up to 100 percent opacity during 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; (2) up to 100 percent opacity for up to two percent of the operating time on a quarterly basis (where the amount of operating time does not include the exempted periods approved by ADEM's Director and included in a state-issued permit), but for no more than ten percent of the time on a daily basis; and (3) up to 20 percent opacity for the rest of the time in a quarter. The current federally-approved SIP opacity limit remains in effect. Any new exceptions proposed in this action do not take effect until EPA takes final action. Furthermore, any final rule would be prospective only. In addition, this proposal is not intended to affect on-going enforcement actions against sources that may be subject to the new standard, nor does it relieve affected sources in Alabama of their obligations to comply with any other federal, state, or local opacity requirements, or particulate matter control requirements.

VI. What Technical Analysis Was Used To Support Approval of This SIP Revision?

The existing Alabama SIP specifies Method 9 as the method for determining compliance with the generally applicable opacity limit for sources of PM emissions. *See* Ala. Admin. Code r. 335–3–4–.01(2). More frequent readings with COMS help determine whether a source is following good air pollution control practices between Method 9 or Method 5 tests. With the additional restrictions described above, the proposed SIP revision can be shown to be no less stringent in terms of average quarterly opacity than the existing SIP.

Today, we propose to approve Alabama's SIP revision contingent upon the revision including our recommended changes, based on a finding that the revision would not increase average quarterly opacity levels and thus would not interfere with attainment or maintenance of a NAAQS, RFP, or any other requirement of the Act. The relationship between changes in opacity and increases or decreases in ambient $PM_{2.5}$ levels cannot be quantified readily and is particularly uncertain for short term and site-specific analyses. There are several contributors to this uncertainty 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 in one may not track fluctuations in the other, and (4) differences between what the ambient sampler collects and the mass of particles that exists at the point

[4] As noted elsewhere, the exemptions in paragraphs 335–3–4–.01(1)(c)–(e) are not impacted by the 2003 SIP revision and would continue to apply to either the existing or the revised standard.

[5] Although this new opacity standard would only apply to certain sources using COMS, EPA notes that, consistent with EPA's and ADEM's credible evidence rules, nothing in the rule should preclude the use of COMS to enforce the existing standard or the use of Method 9 to enforce the new standard.

[6] The director's discretion provisions under Alabama rule 335–3–4–.01(1)(c) and (d) would be unchanged by this SIP revision, so periods of excess emissions allowed in a permit pursuant to those provisions would continue to be allowed, in addition to the emissions allowed by the new provisions discussed herein. EPA notes that, as the director's discretion provisions are not being revised by ADEM or reviewed by EPA at present, nothing in this notice should be considered as approving those provisions.

of COMS measurement (*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).

In addition to these uncertainty factors, opacity is directly related to particle size, with particles of an aerodynamic diameter of approximately 1.0 micrometer having the greatest potential for impairment of visibility, or increased opacity. (See, e.g., Malm, William C. ''Introduction to Visibility,'' Cooperative Institute for Research in the Atmosphere, May 1999, Chap. 2, p. 8). As particles increase in size, their impact on opacity diminishes, despite the fact that their mass may increase. Thus for PM emissions of a given mass level, opacity can be greater or less depending on the particle size distribution.

Several past instances and State and Federal rules are instructive regarding the uncertainties in relating opacity to PM concentrations. EPA recognized and accounted for these uncertainties as early as the 1970s by permitting sources to adjust source-specific opacity standards under new source performance standards (NSPS) when they could demonstrate that they were in compliance with applicable PM limits at times when opacity limits were being exceeded. See, e.g., 44 FR 37960, 37961 (June 29, 1979). In EPA's own NSPS for glass manufacturing plants, (40 CFR 60.293(e)), and national emission standard for Inorganic Arsenic Emissions from Glass Manufacturing Plants (40 CFR 61.163), EPA has written specific provisions into its standards permitting source owners or operators to redetermine opacity limitations where they can demonstrate compliance with emission limits in the applicable rules. More recently, when examining a study of COMS at a portland cement kiln, we have found that the plant's visible emissions readings were consistently below its allowable limit (20 percent) while PM emissions significantly exceeded the NSPS due to broken bags in its baghouse. Finally, a number of States have incorporated similar provisions into their regulations. (See, e.g., Indiana Administrative Code, 326 IAC 5–1–5(b); Wisconsin NR 431.07; Pima County, Arizona 2–8–300(C)).

The contributions to uncertainty described above lessen when applied to longer term averages and the relationship between ambient $PM_{2.5}$ measurements and changes in opacity are more reliable than for shorter term (e.g., daily) assessments. Therefore, for purposes of this proposal, EPA focused on analyzing the effects of the proposed change in the opacity limitations for facilities covered by the rule over quarterly periods. EPA believes that a quarterly basis is appropriate because correlations between opacity and PM control device operation are more readily generalized over a longer-term basis and, therefore, a quarterly average is more likely to reflect impacts on the ambient PM levels accurately than a daily average, and because ADEM's proposed rule includes a quarterly limit. By calculating and comparing the average quarterly opacities allowed by the current SIP approved rule, the 2003 ADEM submittal, and the 2003 ADEM submittal with required changes specified, we can determine which proposed SIP change, if any, provides an average quarterly opacity equivalent with, or more stringent than, the average quarterly opacity allowed by the current SIP approved rule. Proposed changes that provide average quarterly opacities more stringent than (or equivalent with) those allowed by the existing SIP rule are expected to be more stringent than (or equivalent to) the existing SIP rule.

EPA is not performing similar calculations comparing stringency of average daily opacity levels under the current rule and the proposed rule because a generally applicable relationship between opacity and PM mass emissions cannot be specified over short averaging times (e.g., 24 hours or less). Even with extensive testing, it is very difficult to establish reliable correlations between the magnitude of opacity measurements and PM mass emissions for short averaging times (e.g., 24 hours or less) that will remain reliable over a longer period of record (i.e., that will establish a direct daily correlation over a longer period, such as three or more months). Therefore, opacity may not be a reliable indicator of short-term emissions, or for use in projecting changes in short-term PM ambient air quality concentrations. Accordingly, we conclude that the proposed change in the allowed opacity will have no effect on attainment of the 24-hour PM NAAQS (35 $\mu g/m^3$ for $PM_{2.5}$ and 150 $\mu mg/m^3$ for PM_{10}) or (based on the quarterly stringency comparison) the annual PM NAAQS (15.0 µg/m for $PM_{2.5}$).

We can calculate the average allowable quarterly opacity for a unit by multiplying an allowed level of opacity by the duration for which that level of opacity is allowed, summing those products for each allowed level of opacity occurring over a quarter, and then dividing that total by the number of six-minute periods in a quarter. The average quarterly opacity for a unit is an opacity value equivalent with one single, constant opacity value emitted for each and every six-minute period of the quarter, allowing us to compare a unit with a longer period of lower opacity to one with a shorter period of higher opacity.

The general formula for calculating the allowable average quarterly opacity (i.e., the average opacity (percent) allowed by rule over a quarter) is:

$$\text{Allowable average quarterly opacity} = \frac{\sum_{i=1}^{n} (\text{opacity}_n) * (\text{duration}_n)}{21{,}900}$$

Where:
n = specific period of quarterly operation,
opacity = opacity (percent) related to that specific period,
duration = number of six-minute average periods related to the specific period, and
21,900 = number of six-minute average periods per quarter.

For the Alabama analysis, using the above general formula to determine the allowable average opacity over a quarter, we chose to use the maximum opacity allowed for each condition, the maximum duration allowed for each condition, and the maximum amount of time for unit operation when calculating the average allowable quarterly opacity. Although operation with opacity at the maximum level for the longest period allowed under a rule is not reflective of actual operations, such a conservative assumption provides a consistent basis for comparisons.

Usually calculation of allowable average quarterly opacity can be readily ascertained, since opacity limits and their associated condition durations are known explicitly. However, because ADEM allows an exemption from opacity limits during 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, and because the duration of those periods is not known, we used a variable, T_1, to represent the duration of those periods. In theory, the duration of those periods could range from 0, meaning no periods of exemption for a quarter, to 21,900, meaning all periods of the quarter are exempt.[7] In practice, one sample of units subject to the current SIP rule contains durations of about 400 periods per quarter for this exemption.

Relying on the variable T_1, calculation of allowable average quarterly opacities becomes straightforward. By way of example, the allowable average quarterly opacity for the 2003 ADEM Submittal is the sum of the ten percent of the quarter's duration at 40 percent opacity, the time (T_1) at 100 percent opacity due to exemptions, the two percent of the non-exempt time of the quarter's duration at 100 percent opacity, and the balance of the non-exempt time of the quarter's duration at 20 percent opacity, all divided by the number of six-minute periods in the quarter. The equation shown below provides the allowable average quarterly opacity for the 2003 ADEM Submittal for T_1 values of 0 to 19,710:

$$\text{Allowable average quarterly opacity} = \left[\frac{\left[\left(\frac{21{,}900}{10}\right)*40\right]+\left(T_1*100\right)+\left[\left(21{,}900-\frac{21{,}900}{10}-T_1\right)*\frac{2}{100}*100\right]+\left[\left(21{,}900-\frac{21{,}900}{10}-T_1\right)*\frac{98}{100}*20\right]}{21{,}900}\right].$$

We derived allowable average quarterly opacity equations for the current SIP-approved rule and the 2003 ADEM submittal, substituted various exemption durations (T_1) in the equations, determined the corresponding allowable average quarterly opacities, and organized the results as shown in Table 1 below.

TABLE 1.—CALCULATED ALLOWABLE AVERAGE QUARTERLY OPACITY LEVELS, FOR VARIOUS STARTUP, SHUTDOWN, LOAD CHANGE, AND RATE CHANGE DURATIONS (T_1), USING ALABAMA'S CURRENT SIP-APPROVED RULE, AND THE 2003 ADEM SUBMITTAL

	Calculated allowable average quarterly opacity (percent) for various startup, shutdown, load change and rate change durations (T_1)					
	T_1 = 0	T_1 = 1,000	T_1 = 10,000	T_1 = 17,520	T_1 = 19,710	T_1 = 21,900
Current SIP Approved Rule	22.00	25.65	58.53	86.00	94.00	100.00
2003 ADEM Submittal	23.44	27.02	59.24	86.16	94.00	100.00

As can be seen, under these conservative assumptions, the 2003 ADEM submittal would result in allowable average quarterly opacity levels that are slightly higher than those calculated from the current SIP rule for periods of startup, shutdown, load change and rate change, *i.e.* for where those durations are less than 19,710 six-minute averages.

In order to be approvable, we have recommended that ADEM eliminate the exemption for six-minutes at up to 40 percent opacity for up to ten percent of the operating time. The allowable average quarterly opacity for the 2003 ADEM Submittal With Required Changes Specified for all T_1 values =

$$\left[\frac{\left(T_1*100\right)+\left[\left(21{,}900-T_1\right)*\frac{2}{100}*100\right]+\left[\left(21{,}900-T_1\right)*\frac{98}{100}*20\right]}{21{,}900}\right].$$

We derived allowable average quarterly opacity equations for the current SIP approved rule and the 2003 ADEM submittal with recommended changes specified, substituted various exemption durations (T_1) in the equations, determined the corresponding allowable average quarterly opacities, and organized the results as shown in Table 2 below. As shown, the proposed revision to the SIP rule yields an allowable average quarterly opacity equivalent to or less than the allowable average quarterly opacity calculated from the current SIP rule in all cases.

[7] EPA does not intend to indicate that it would be appropriate or consistent with the SIP for an exemption period under 335–3–4.01(1)(c) to last for an extended period of time, but rather is utilizing conservative assumptions for the purpose of ensuring the requirements of section 110(l) will be met. EPA does not anticipate that a source would, in fact, operate at 100% opacity for all permissible excursion periods.

TABLE 2.—CALCULATED ALLOWABLE AVERAGE QUARTERLY OPACITY LEVELS, FOR VARIOUS STARTUP, SHUTDOWN, LOAD CHANGE, AND RATE CHANGE DURATIONS (T_1), USING ALABAMA'S CURRENT SIP-APPROVED RULE AND THE PROPOSED SIP REVISION WITH RECOMMENDED CHANGES SPECIFIED

	Calculated allowable average quarterly opacity (percent) for various startup, shutdown, load change and rate change durations (T_1)					
	$T_1 = 0$	$T_1 = 1{,}000$	$T_1 = 10{,}000$	$T_1 = 17{,}520$	$T_1 = 19{,}710$	$T_1 = 21{,}900$
Current SIP Approved Rule	22.00	25.65	58.53	86.00	94.00	100.00
2003 ADEM Submittal with Recommended Changes Specified	21.60	25.18	57.40	84.32	92.16	100.00

Therefore, by incorporating these recommended changes, Alabama would reduce uncertainties related to whether such a change could interfere with attainment, RFP or any other requirement of the Act. Accordingly, we conclude that the revision of Alabama's SIP rule to incorporate the 2003 ADEM submittal with our recommended changes specified in this action would not interfere with requirements of the CAA and would be approvable. Further details of this analysis are contained in the technical support document.

VII. What Happens Next?

EPA anticipates Alabama will submit a revised rule revision reflecting the changes discussed in section IV above. If Alabama's revised rule is submitted and considered approvable, after considering any comments received on today's proposed approval, EPA will publish a final rule in the **Federal Register** approving the State's requested rule revision and will also address in that rulemaking any comments received on this proposed approval. In addition, we plan to develop further criteria to aid EPA Regional Offices in evaluating future revisions to rules such as Alabama's and, in this regard, we expect to publish in the near future a request for information that will assist us in that effort.

VIII. Proposed Action

EPA is proposing to approve the Visible Emissions portion of a SIP revision submitted to EPA by Alabama on September 11, 2003, provided it is revised as described in section IV of this action and submitted as a SIP revision in accordance with the requirements of the CAA.

IX. Statutory and Executive Order Reviews

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this proposed action is not a ''significant regulatory action'' and therefore is not subject to review by the Office of Management and Budget. For this reason, this action is also not subject to Executive Order 13211, ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use'' (66 FR 28355, May 22, 2001). This proposed action merely proposes to approve state law as meeting Federal requirements, and imposes no additional requirements beyond those imposed by state law. Accordingly, I hereby certify that this proposed rule will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). Because this action proposes to approve requirements under state law and does not impose any additional enforceable duty beyond that required by state law, it does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104–4).

This proposed rule also does not have tribal implications because it will not have a substantial direct effect on one or more Indian tribes, 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, as specified by Executive Order 13175 (65 FR 97249, November 9, 2000). This proposed action also does not have Federalism implications because it does 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 (64 FR 43255, August 10, 1999). This action merely proposes to approve State rule as consistent with Federal standards, and does not alter the relationship or the distribution of power and responsibilities established in the CAA. This proposed rule also is not subject to Executive Order 13045, ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 19885, April 23, 1997), because it is not economically significant.

In reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. In this context, in the absence of a prior existing requirement for the state to use voluntary consensus standards (VCS), EPA has no authority to disapprove a SIP submission for failure to use VCS. It would thus be inconsistent with applicable law for EPA, when it reviews a SIP submission to use VCS in place of a SIP submission that otherwise satisfies the provisions of the CAA. Thus, the requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply. This proposed rule does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

List of Subjects in 40 CFR Part 52

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

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

Dated: April 4, 2007.

J.I. Palmer, Jr.,

Regional Administrator, Region 4.

[FR Doc. E7–6948 Filed 4–11–07; 8:45 am]

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 52 and 81

[EPA–R03–OAR–2006–0917; FRL–8298–3]

Approval and Promulgation of Air Quality Implementation Plans; Virginia; Redesignation of the Richmond-Petersburg 8-Hour Ozone Nonattainment Area To Attainment and Approval of the Associated Maintenance Plan and 2002 Base-Year Inventory

AGENCY: Environmental Protection Agency (EPA).