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**Approval and Promulgation of
Implementation Plans for California –
San Joaquin Valley PM-10 Nonattainment
Area; Serious Area Plan for Attainment of
the 24-Hour and Annual PM-10
Standards; Final Rule**

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[CA 294-0450, FRL-7663-8]

Approval and Promulgation of Implementation Plans for California—San Joaquin Valley PM-10 Nonattainment Area; Serious Area Plan for Attainment of the 24-Hour and Annual PM-10 Standards

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: EPA is finalizing approval of the “2003 PM10 Plan, San Joaquin Valley Plan to Attain Federal Standards for Particulate Matter 10 Microns and Smaller,” submitted on August 19, 2003, and Amendments to that plan, submitted on December 30, 2003, as meeting the Clean Air Act (CAA or the Act) requirements applicable to the San Joaquin Valley, California nonattainment area for particulate matter of ten microns or less (PM-10)(SJV). The SJV violates the national ambient air quality standards (NAAQS) for PM-10 and is classified as a serious PM-10 nonattainment area.

As a serious PM-10 nonattainment area, the State must submit to EPA a plan that provides for, among other things, the implementation of best available control measures (BACM). In addition, because the serious attainment deadline, December 31, 2001, has passed, the plan must provide for expeditious attainment of the PM-10 NAAQS and for an annual reduction in PM-10 or PM-10 precursor emissions of not less than five percent until attainment.

DATES: *Effective Date:* This rule is effective on June 25, 2004.

ADDRESSES: You can inspect copies of the docket for this action at EPA’s Region IX office during normal business hours by appointment at the following locations: Environmental Protection Agency, Region IX, 75 Hawthorne Street, San Francisco, CA 94105-3901. Air and Radiation Docket and Information Center, U.S. Environmental Protection Agency, Room B-102, 1301 Constitution Avenue, NW., (Mail Code 6102T), Washington, DC 20460.

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SUPPLEMENTARY INFORMATION:

Throughout this document, “we,” “us” and “our” refer to EPA.

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I. Summary of Proposed Actions

On February 4, 2004, (69 FR 5412), we proposed to approve the “2003 PM10 Plan, San Joaquin Valley Plan to Attain Federal Standards for Particulate Matter 10 Microns and Smaller,” submitted on August 19, 2003, and Amendments to that plan, submitted on December 30, 2003,¹ as meeting the CAA requirements applicable to the SJV for PM-10. Specifically, we proposed to approve the following elements of the Plan:

- Motor vehicle budgets for transportation conformity;
- Emissions inventories for PM-10 and PM-10 precursors;

¹ The Amendments to the 2003 PM-10 supersede some portions of the 2003 PM-10 Plan and also add to it. References hereafter to the “SJV 2003 PM-10 Plan” or “the Plan” mean the 2003 Plan submitted on August 19, 2003, as amended by the December 30, 2003 submittal.

- A demonstration that reasonably available and best available control measures (RACM and BACM) will be expeditiously implemented for all significant sources of PM-10 and PM-10 precursors;
- A demonstration that attainment will be achieved as expeditiously as practicable;
- A demonstration that the CAA section 189(d) five percent requirement is met; and
- A demonstration that reasonable further progress (RFP) and quantitative milestones will be achieved.

A detailed discussion of air quality planning in the SJV, the CAA requirements for serious nonattainment areas, and how the 2003 PM-10 Plan complies with these requirements is provided in our proposed rule and the technical support document (TSD).

II. Public Comments and EPA Responses

EPA received 19 comment letters and emails from the following environmental groups, industry groups, agencies and public citizens (some commenters provided more than one letter or email):

- Dr. David Pepper
- Gordon Jones, Tehachapi, California
- Michael E. LaSalle, Hanford, California
- Brent Newell, Stacey Wittorf, Center on Race, Poverty, & the Environment (CRPE) on behalf of the Association of Irrigated Residents (collectively, CRPE)
- Art Caputi, Chairman, Wine Institute Air Quality Working Group
- D. Barton Doyle, on behalf of the California Building Industry Association and its Affiliate Associations located in the SJV
- Suzanne Noble, Western States Petroleum Association
- Jan Marie Ennenga, Executive Director, Manufacturers Council of the Central Valley
- David L. Crow, Executive Director/Air Pollution Control Officer, San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD or the District)
- Patricia Taylor-Maley, Chair San Joaquin Valley TPA Director’s Association
- Charles Swanson, San Francisco, California
- David Moralez, Davis, California
- Susan Britton, Anne Harper and Vanessa E-H Stewart, Earthjustice, on behalf of Medical Advocates for Healthy Air, Latino Issues Forum, Sierra Club and Natural Resources Defense Council (collectively, Earthjustice)

- Barbara Joy, Earth Matters
- San Joaquin Valley agricultural groups: California Cotton Ginners and Growers Association, California Grape and Tree Fruit League, California Citrus Mutual, Fresno County Farm Bureau, Kings County Farm Bureau, Madera County Farm Bureau, Nisei Farmers League and Tulare Lake Resource Conservation District.

EPA appreciates the time and effort made by the commenters in reviewing the proposed rule and providing comments. We have summarized the major comments and provided our responses below.

A. NO_x /PM Strategy

The Plan relies on an oxides of nitrogen (NO_x)/PM strategy as the most effective and expeditious strategy for attaining the PM-10 standards in the SJV, based on the best available information at this time. The California Air Resources Board (CARB) and the SJVUAPCD have examined the effects of controlling ammonia, volatile organic compounds (VOC) and oxides of sulfur (SO_x), and have determined that the effect of controls for ammonia is uncertain, the effect of additional VOC controls will not lead to PM-10 reductions throughout the SJV, and that the effect of SO_x controls would be very limited because the contribution of ammonium sulfate to the particulate problem in the SJV is small. EPA concurs that these findings are supported by the current analysis of the best available data. However, the more extensive California Regional PM-10/PM-2.5 Air Quality Study (CRPAQS) field study and modeling will provide an improved basis to assess the relationship of precursors in forming secondary particulates.² EPA expects

² The CRPAQS study was an extensive 14-month field study conducted on 2000–2001, which measured PM-10, precursors and meteorological parameters during episodes representative of high PM-10 and PM-2.5 in the SJV. The domain for the study encompasses the entire SJV, compared to the smaller IMS 95 domain of an earlier field study, and the CRPAQS study captured more extensive ambient air and meteorological measurements than the IMS 95 field study. The CRPAQS modeling, discussed below, will be more extensive than the Urban Airshed Model-Aerosol (UAM-Aero) modeling based on IMS 95. Additional information regarding the CRPAQS study is available at <http://www.arb.ca.gov/airways/ccaqs.htm>.

The goal of the CRPAQS modeling is to better understand the fundamental physical and chemical processes that contribute to elevated particulate matter concentrations. The CRPAQS modeling package includes evaluation of two complementary modeling approaches. Each model provides particular strengths that will support state implementation plan (SIP) modeling needs. In addition, use of two modeling approaches allows improved diagnosis of potential model errors and biases. The two modeling approaches have fundamentally different modeling formulations.

that the results of the CRPAQS study will provide additional technical information and is approving the SJVUAPCD's commitment to re-evaluate the 2003 PM-10 Plan with the results of CRPAQS and to submit a new plan to EPA by March 2006. (69 FR 5412, 5414).

The attainment demonstration for the Plan is based on receptor modeling based on chemical analysis of filter samples collected during the CRPAQS field study. These samples include filters from days representing typically high PM-10 concentrations in the SJV. However, the photochemical grid modeling, UAM-Aero, presented in the Plan was based on the previous, smaller field study in the SJV, IMS 95, because the modeling from the CRPAQS field study was not complete at the time of the Plan approval. The proposed modeling analysis based on CRPAQS will better characterize the interaction of precursors to form secondary particulates, because of the more robust CRPAQS database and the more extensive CRPAQS modeling approach.

Responses to comments regarding individual precursors are addressed below.

1. Ammonia

Comment 1: Earthjustice comments that all available evidence supports that ammonium nitrate is a significant contributor to fall and winter PM exceedances. CRPE comments that ammonium nitrate represents a significant amount of the total PM-10 concentration, and represents the largest amount of PM-10 during the winter. CRPE comments that the Plan itself concedes that ammonia reacts with other precursor emission to form ammonium nitrate during the winter.

Response: EPA concurs that ammonium nitrate is a significant contributor to violations of both the 24-hour and annual PM-10 standards in the SJV. Ammonium nitrate, a secondary particulate, is not directly emitted, but formed as a product of a series of chemical reactions which involve ammonia (NH_3), NO_x , and many other components. EPA believes that the Plan will effectively reduce ammonium nitrate by controlling NO_x ,

The first type of modeling approach explicitly tracks particle types from individual source types. This method has strong advantages in understanding source-receptor relationships and in tracking specific source contributions to secondary particulate matter. However, this approach can be very resource and time intensive to apply. The second modeling approach lumps similar pollutant emissions together, thus reducing source tracking capabilities. The advantage of this approach is that it requires fewer resources to run, enabling many more sensitivity and control strategy evaluations to be conducted.

and that controlling ammonia in addition to NO_x will not accelerate the attainment date for PM-10 in the SJV. EPA also believes that the effect of controlling ammonia on ammonium nitrate is less clear than the effect of controlling NO_x at this time, for several reasons. The current emission inventory and control strategies for ammonia have a greater uncertainty than the NO_x emission inventory and control strategies. For NO_x , the control technology and management practices are better understood and well established. In addition, analysis of ambient air quality data in the SJV indicates that ammonia is relatively abundant throughout the SJV and, therefore, controlling ammonia in addition to NO_x controls, will not effectively reduce ammonium nitrate, because it is not the limiting pollutant. As discussed below, the current data suggest that controlling ammonia may be neither an efficient nor an effective approach to reducing ammonium nitrate concentrations in the SJV.

As discussed elsewhere in response to comments on the emissions inventory, EPA believes that the Plan's emissions inventory for ammonia reflects the current state of scientific knowledge. EPA also believes, however, that both ammonia emission factors and ammonia source surveys, and thus the ammonia inventory itself, have a high degree of uncertainty. This is because the ammonia inventory is dominated by emission sources—such as dairy, beef, poultry, fertilizer, and soil—that have not been extensively sampled in the past, and that are inherently difficult to measure even with the most sophisticated and expensive techniques.³ This sharply contrasts with the confidence level associated with quantifying emissions of NO_x , a gas which is emitted primarily by stationary and mobile source combustion and which can therefore be accurately measured through stack or tailpipe tests.

For example, a calculation of net ammonia emissions from soil would need to measure on a seasonal basis both ammonia emissions and ammonia uptake considering such factors as soil

³ Surface isolation flux chambers are generally used to collect field samples of ammonia sources. These samples are then evacuated for laboratory analysis. For livestock waste, the flux chambers need to be stationed at representative locations to sample liquid and solid waste at various ages and under various exposure conditions. See "Results of the Measurement of PM10 Precursor Compounds from Dairy Industry Livestock Waste," Air Toxics Limited, C.E. Schmidt and E. Winegar, June 1996. This report was prepared for the South Coast Air Quality Management District (SCAQMD), and is currently available at: <http://www.aqmd.gov/rules/proposed/r1127/index.html>.

type, climatic variables, soil moisture, vegetative coverage, etc. The accurate quantification of livestock emissions depends on survey data and emissions measurement on a seasonal basis of various animal types, ages, and residency times; animal and waste handling practices (such as types of commercial feed or range feeding, stable housing, manure spreading, and waste storage); climatic and soil variables, etc.⁴

These difficulties and complexities in quantifying baseline ammonia emissions, particularly over an area as large and diverse as the SJV, make it difficult to quantify the benefits of possible ammonia control strategies. In addition, although there are many groups now assessing various ammonia emission reduction approaches, there are few completed scientific studies of the potential effectiveness of ammonia

⁴ For a discussion of these and other challenges associated with quantifying livestock emissions in California and the progress to date in addressing the issues, see: "Air Emissions Action Plan for California Dairies", a report of the Ad hoc Dairy Subcommittee of the San Joaquin Valley Unified Air Pollution Control District. (May 2003, available at: <http://www.arb.ca.gov/planning/agriculture/cafwg/dairy062503.pfd>). Memo from Patrick Gaffney, ARB, entitled "Updating Livestock Emissions for California" (October 1, 2003); and ARB's "Interim Draft Livestock Husbandry" emissions factors (October 2003), both available at: <http://www.arb.ca.gov/emisinv/areasrc/drfmeth.htm>. The last of these documents summarizes the current state of knowledge relating to livestock emissions: "Currently, there are not TOG [total organic gases] or ROG [reactive organic gases] emission factors for livestock that are based on recent or California specific test data. However, even in the absence of good quality emission factors, it is necessary to estimate livestock TOG and ROG emissions. In order to meet the regulatory requirements for livestock emission estimates, interim emission factors were used. These factors are quite old, have many shortcomings, and have very little field or laboratory data to support them. The current emission estimates are intended as placeholders to help begin identifying the gross magnitudes of livestock air emissions." (Page x.xx-2). See also a report commissioned by the SCAQMD: "Literature Survey & National Programs—Livestock Waste Management Practices Survey & Control Option Assessment," Tetra Tech, Inc., March 2003. This SCAQMD report is currently available at the Web address in the previous footnote. Additional information on ammonia emissions from animal husbandry operations can be found in EPA's recently released draft report entitled, "National Emissions Inventory—Ammonia Emissions from Animal Husbandry Operations." The draft report includes emission estimates from animal production facilities in the U.S. for the years 2002, 2010, 2015, 2020, and 2030. While the data updates past emission estimates, there are important limitations on the use of the data, including the limited number of emission measurements. The draft report can be found at—<http://www.epa.gov/ttn/chief/net/2002inventory.html#animal>

While the data updates past emission estimates, there are important limitations on the use of the data, including the limited number of emission measurements. The draft report can be found at—<http://www.epa.gov/ttn/chief/net/2002inventory.html#animal>.

control technologies and control techniques at this time, and no extended record documenting the actual costs and benefits of regulatory control programs in effect for ammonia. Moreover, the costs and benefits of most ammonia control approaches must be assessed on a region-specific basis, since the assessment would need to take into account fundamental differences from one area to another in terms of the affected industries, the availability of control options, and variations in critical conditions, such as soils and soil coverage, temperature, windspeed, and humidity.⁵

Data analysis for the SJV indicates that the Valley is relatively rich in ammonia and, therefore, reductions of ammonia are not likely to be effective. Data analysis is based on measured concentrations of precursors in the ambient air. Therefore, despite the uncertainties in the emission inventory, data analysis can provide an understanding of the relationship of the concentrations of the precursors in an area, and the effect of control strategies of precursors will have on the concentration levels of ammonium nitrate. Ammonium nitrate is a secondary pollutant formed through the neutralization of nitric acid by ammonia. Based on a molar comparison of the observed ion data, the amount of ammonium needed if all the sulfate and nitrate were ammonium sulfate and ammonium nitrate can be calculated. In an area where ammonia concentrations are high relative to the concentrations of nitric acid (which is produced from NO_x and VOC), reducing ammonia will not effectively reduce ammonium nitrate. In areas where the ammonia concentrations are relatively low, reducing ammonia concentrations will effectively reduce ammonium nitrate.

Data analysis results from several investigators support the conclusion that SJV is ammonia rich. Based on the thermodynamic equilibrium of

⁵ As part of a lengthy rule development process, the SCAQMD has collected information on the costs and benefits of reducing ammonia emissions from composting and from livestock waste within the South Coast (metropolitan Los Angeles area), evaluating in particular those control approaches reflected in the SCAQMD's Rules 1133, 1133.1, and 1133.2 (a series of composting rules adopted on January 10, 2003) and in SCAQMD's proposed rule 1127 (livestock waste). See, for example, "Survey Current Livestock Waste Management Practices in the South Coast Air Basin," Tetra Tech, Inc., January 2002; and SCAQMD "Preliminary Draft Staff Report: Proposed Rule 1127—Emission Reductions from Livestock Waste," November 20, 2002. These reports are currently available at the web address in the footnote above. Although some of this information may be applicable to the SJV, much of the data is specific to the South Coast and would need to be replaced with SJV data during a rulemaking process.

ammonium nitrate and sulfate formation, CARB concluded that there was no ambient ammonia deficiency during the IMS 95 episode.⁶ Hence, ammonia is in excess and initial reductions in ammonia concentrations will not reduce ammonium nitrate. Independent data analysis performed by Dr. Chu at EPA concluded that "the high ammonium nitrate particle concentrations observed in the winter in San Joaquin Valley are not limited by the available ammonia emissions."⁷ Preliminary data analysis from the CRPAQS study also indicates that "nitrate formation in the San Joaquin Valley Air Basin (SJVAB) is not likely to be limited by ammonia availability."⁸ The NARSTO assessment likewise concludes that for the San Joaquin Valley "[t]here is typically an abundance of NH₃ present."⁹

Although the UAM-Aero modeling presented in the plan indicates that ammonia reductions may result in lower concentrations of ammonium nitrate (secondary PM) in some areas of the SJV, because of the uncertainty in the ammonia inventory and the atmospheric chemistry, State and local air agency experts question these results. This is discussed in greater detail in the response to comment 9 below.

Finally, EPA is also concerned that there is uncertainty about the effects of ammonia controls in areas such as SJV that have conditions conducive to the formation of acid fog. In such places, reductions of ammonia might serve to increase the exposure to a category of PM-2.5 known as acid aerosols. Historical and present-day evidence suggests that acid aerosols may have both acute and chronic effects on human health.¹⁰

These fundamental scientific and technical uncertainties regarding ammonia leave reasonable doubts regarding the extent to which ammonia reductions would contribute to PM-10 attainment in the SJV. The CRPAQS should resolve the question of whether ammonia and other possible precursors, including VOC and SO_x, contribute significantly to PM-10 levels which exceed the standard in the SJV. In the

⁶ Plan at M-11.

⁷ Shao-Hang Chu, Wintertime PM formation in San Joaquin Valley. Memorandum to Doris Lo, December 2003.

⁸ Lurmann *et al.*, in "Phase Distributions and Secondary Formation During Winter in the San Joaquin Valley".

⁹ NARSTO at 10-12.

¹⁰ EPA has discussed its concerns with respect to exposure to acid aerosols in more detail in the criteria document for the new PM-2.5 NAAQS. See, U.S. EPA, Air Quality Criteria for Particulate Matter, vol. III at 12-253, April 1996 (EPA/600/P-95/0001cF).

absence of the CRPAQS results, EPA believes that there is insufficient evidence to support a determination that ammonia is a significant PM-10 precursor in the SJV. Thus, EPA is making the Agency's determination under CAA section 189(e) that sources of ammonia do not contribute significantly to PM-10 levels which exceed the standard in the SJV. If the CRPAQS shows that ammonia is a significant precursor, however, EPA will reevaluate this determination. At that point, ammonia could become subject to the various PM-10 and PM-10 precursor control provisions of the Clean Air Act, including BACM under section 189(b)(1)(B) and the 5 percent requirement under section 189(d).

In the proposed rule, EPA concurred with the 2003 PM-10 Plan's NO_x/PM strategy based on the currently available information which includes a high degree of uncertainty regarding the ammonia inventory and the effects of ammonia controls. EPA agrees with the State and local agencies that this approach will not retard air quality progress in the SJV. The SJVUAPCD has made an enforceable commitment to submit a SIP revision by 2006 based on the CRPAQS results, including appropriate controls based on those results. 69 FR 5412, 5414. In the meantime, the area should achieve important reductions in ammonium nitrate PM-10 concentrations through a NO_x-based strategy. Finally, EPA continues to believe that use of the CRPAQS has the potential to avoid wasteful imposition of controls that may be found to be not only expensive and dislocative but also unnecessary and ineffective in advancing PM-10 attainment in the specific circumstances applicable in the SJV.

Comment 2: Earthjustice comments that if ammonia comprises 22.4% of the total mass of ammonium nitrate, this means that ammonia is contributing anywhere from 13 µg/m³ to 22.4 µg/m³ to total mass at each monitoring site.

Response: Ammonium nitrate is a secondary particulate, a product of chemical reaction. Although ammonia participates in the series of reactions to form ammonium nitrate, it is not appropriate to determine the significance of the ammonia contribution to ammonium nitrate in isolation. The effect of ammonia emissions on the formation of ammonium nitrate is specific to each air basin. As presented in the response to comment 1 above, EPA believes that the Plan will effectively reduce the concentration of ammonium nitrate in the SJV by controlling NO_x, and that controlling ammonia will not effectively

reduce ammonium nitrate. Therefore, EPA believes that the Earthjustice calculation determining the ammonia contribution to ammonium nitrate for the purpose of determining significance is not appropriate.

Comment 3: Earthjustice comments that more than 151,000 tons of ammonia are emitted from Valley sources and that ammonia must be regulated because EPA's guidance, CAA section 189(e) and the District's own data show that it is a significant contributor.

Response: As stated above, EPA believes that the most effective way to reduce ammonium nitrate is by controlling NO_x. As discussed in the above response, EPA is determining, based upon the best currently available information, that ammonia does not contribute significantly to PM-10 levels which exceed the standard in the SJV. If the results of CRPAQS indicate otherwise, EPA will revisit this determination.

Comment 4: Earthjustice comments that the District's decision not to regulate PM-10 precursors other than NO_x is based on results of sensitivity tests using the UAM-Aero to model the formation of secondary particles in the atmosphere. The Plan admits the data set was not ideal.

Response: EPA concurs that the data set used for the UAM-Aero modeling was not ideal; however, it was the best available data set at the time of the Plan submittal and was sufficient to make the necessary determination. In addition, the determination of the efficacy of ammonia control was based on data analysis (Plan at Appendix M, M-11). This includes the preliminary data analysis based on the CRPAQS study, which captured high values of PM-10 and ammonium nitrate, and supports the conclusion that the SJV ammonium nitrate concentrations are not sensitive to reductions in ammonia. Modeling based on the more extensive CRPAQS field program will not be available until late 2005. As stated above, EPA believes that controlling NO_x will effectively reduce ammonium nitrate. The District has made an enforceable commitment to reevaluate the 2003 PM-10 Plan with the results of CRPAQS and to submit a new plan to EPA by March 2006.

Comment 5: Earthjustice comments that the Plan states that "In rural sites where the ammonia concentrations are low, the Plan further admits that reductions of PM-10 almost entirely depend on ammonia controls."

Response: EPA believes that the commenter is misinterpreting the explanation of the graphic representation of the reduction strategies presented in the Plan. The

Plan supports the conclusion that NO_x reductions are the most effective strategy in rural areas at current levels of ammonia. The full context of the remark that the commenter points to is: "The rural sites show sensitivity to only NO_x reductions until the ammonia concentrations are very low. After that point the response becomes insensitive to NO_x controls and almost entirely responsive to ammonia controls at higher NO_x emissions."¹¹ According to the information presented in Figure 6 of Appendix M-11 of the Plan, only after ammonia concentrations are reduced to a very low level do the ammonia controls become effective. Therefore, large reductions of ammonia would be required before ammonia reductions would become more effective than NO_x controls in reducing ammonium nitrate. This is not the same thing as saying that ammonia reductions are the most effective or efficient means to attain the PM-10 NAAQS expeditiously, which is the goal of the Plan.

Comment 6: Earthjustice comments that one of the District's rationales for not regulating ammonia is that "there is too much uncertainty regarding the effects of ammonia controls." Plan at ES-16. This is unsupported by facts and EPA itself has commissioned studies documenting control efficiencies for various types of equipment designed to control emissions of ammonia.

Response: EPA cannot find the same quote cited by Earthjustice at ES-16. On page ES-16, the Plan states that there is " * * * uncertainty regarding ammonia emission controls to achieve attainment * * *," but EPA does not agree that the District is questioning the control efficiencies of the controls themselves on this page. As discussed above, however, EPA believes that there are some uncertainties concerning ammonia that support the District's position that it may be better to focus on NO_x reductions at this time.

Comment 7: Earthjustice comments that livestock waste is responsible for approximately 85% of ammonia emissions in the Valley. Sources of livestock waste must be presumed to contribute significantly to violations of the NAAQS because the contribution to the PM-10 impact in these areas is more than double EPA's standard of 5 µg/m³ for the 24-hour average at every site. In addition, Earthjustice states that SCAQMD Rules 1186 and 1127 reduce emissions from livestock waste and should be included in a BACM analysis for this source category.

Response: As discussed in above responses, EPA has determined that

¹¹ Plan at Appendix M-11.

ammonia does not contribute significantly to PM-10 levels which exceed the NAAQS in the SJV. In addition, although the South Coast and SJV air basins each have relatively high levels of ammonium nitrate, the difference in the relative emission levels of precursors and the atmospheric conditions unique to each basin may lead to different optimal control strategies for each basin. EPA also notes that the SCAQMD does not claim ammonia reductions from Rule 1186, which is designed to reduce fugitive dust, and SCAQMD has not yet adopted Rule 1127, which is currently scheduled for Board consideration in July 2004.

Comment 8: CRPE comments that the standard for requiring PM-10 precursor controls is not whether precursor reductions effectively reduce PM-10, but rather whether the precursor itself contributes significantly to violations of the PM-10 NAAQS. Earthjustice comments that in its Addendum, EPA states that a source category "will be presumed to contribute significantly to a violation of the 24-hour NAAQS if its PM-10 impact at the location of the expected violation would exceed 5 µg/m³." Addendum at 42011. Earthjustice also comments that the Clean Air Act requires the regulation of major stationary sources of PM-10 precursors (CAA 189(e)) and that, like the South Coast, the SJV should take the prudent approach of regulating ammonia given the uncertainty.

Response: As discussed in above responses, EPA is determining that ammonia does not contribute significantly to PM-10 levels which exceed the standard in the SJV. Although ammonium nitrate concentrations in the Valley are substantial, as discussed above, EPA has determined that NO_x control is the most effective way to achieve the PM-10 NAAQS. In addition, the commenter refers to the Addendum test for whether a source is presumed to be significant. That is not necessarily the test for whether a particular precursor is significant. Although the SJV and the South Coast air basins each have relatively high concentrations of ammonium nitrate, the meteorology and the emissions of each basin are different, leading to potentially different strategies in reducing ammonium nitrate. See responses in this section above and the District's "Responses to Comments on the Draft 2003 Pm10 Plan," #34.

Comment 9: CRPE comments that the Plan states that for Bakersfield on January 6, 1996, reductions of NO_x and ammonia are nearly equally effective in reducing nitrate concentrations.

Earthjustice comments that the Plan admits that the UAM-Aero model shows that the "southern Valley shows a non-negligible sensitivity to ammonia reduction." CRPE comments that ammonia controls are equally effective as NO_x controls in reducing ammonium nitrate in Fresno and Bakersfield.

Response: The Plan at the section entitled "Further Investigations to Assess Apparent Ammonia Limitation at Bakersfield on January 6, 1996"¹² discusses the apparent disparity between the results of the data analysis and the modeling. Based on the thermodynamic equilibrium of ammonium nitrate and sulfate formation, the data analysis results indicate that there was no ambient ammonia deficiency at Bakersfield during the IMS 95 episode. The Plan indicates that "[b]ased on sensitivity simulations we performed, we believe that this apparent ammonia limitation is due to the artificially low ammonia emissions in the Southern San Joaquin Valley." Because of the uncertainties in the ammonia emission inventory at this time, EPA believes that reliance on the ambient data analysis is more appropriate at this time. EPA expects that the results of the CRPAQS study will provide additional technical information and is approving the SJVUAPCD's commitment to re-evaluate the 2003 PM-10 Plan with the results of CRPAQS and to submit a new plan to EPA by March 2006. (69 FR 5412, 5414).

Comment 10: The SJVUAPCD comments that according to the Plan, the preponderance of evidence indicates excess ammonia in nearly all of the cases, and therefore NO_x-only control was determined to be the appropriate means to reduce ammonium nitrate. Peer-reviewed scientific journal articles and papers submitted to EPA as part of the SIP package for the PM-10 Plan support this position. The paper by Kumar, *et al.* (Analysis of Atmospheric Chemistry During 1995 Integrated Monitoring Study) found that of the 150 samples, 93% were ammonia rich.

Response: For the reasons stated above in the response to comment 1, EPA concurs with the SJVUAPCD that current evidence supports that NO_x controls are the most effective approach to reducing ammonium nitrate in the SJV. EPA expects that the results of the CRPAQS study will provide additional technical information regarding the formation of ammonium nitrate in the SJV. EPA is approving the SJVUAPCD's commitment to re-evaluate the 2003 PM-10 Plan with the results of CRPAQS

and to submit a new plan to EPA by March 2006.

Comment 11: The SJVUAPCD comments that Lurmann *et al.*, in "Phase Distributions and Secondary Formation During Winter in the San Joaquin Valley" noted that nitrate formation in the San Joaquin Valley Air Basin is not likely to be limited by ammonia availability. Although these results are preliminary, they are included here because they strongly support the peer-reviewed journal articles referenced above. CRPAQS data analysis is now underway, with results due in 2005.

Response: EPA agrees that this paper represents the most current data analysis for the CRPAQS study, and supports the conclusion of the previous data analysis results that the NO_x strategy is the most effective approach to reduce ammonium nitrate in the SJV.

2. VOC

Comment 1: Earthjustice comments that the proposal to determine that VOCs "do not significantly contribute" to PM-10 NAAQS exceedances is inappropriate because it is based on the UAM-Aero modeling which relies on three days of data from 1996, during a period of unusually low PM levels.

Response: EPA agrees that the IMS 95 database is not ideal; however, it was the best available data set at the time of the Plan submittal. The modeling presented in the Plan is based on the time period most representative of high PM-10 during the IMS 95 Study. Modeling based on the more extensive CRPAQS field program will not be available until late 2005. The District has made an enforceable commitment to reevaluate the 2003 PM-10 Plan with the results of CRPAQS and to submit a new plan to EPA by March 2006.

The District's UAM-Aero modeling was used to determine the sensitivity of ammonium nitrate to VOC controls (whether VOC controls would increase or decrease the ammonium nitrate in the SJV). The chemical nature of the atmosphere is not likely to significantly change from one winter period to another and, therefore, the response of the atmosphere to reductions in VOC during the IMS 95 time period is likely to be similar to the response in different winter time periods. Therefore, despite the fact that the PM-10 levels were relatively low, the IMS 95 modeling is useful to determine the relative impact of VOC controls on the formation of ammonium nitrate.

As part of the technical support for the Plan, CARB determined the expected response to emission reductions through modeling. The

¹² Plan at Appendix M-11.

sensitivity of ammonium nitrate concentrations to VOC controls is presented in the Plan (Appendix M, M-6). A 50% reduction of VOCs results in only a small reduction of ammonium nitrate concentrations throughout the modeling domain. Plan at Appendix M, M-10. This suggests that even with large reductions of VOC concentrations, the reduction of the concentrations of ammonium nitrate will be small.

Comment 2: Earthjustice comments that there is evidence that VOCs have much to do with facilitating the rate of PM formulation in the Valley. To support this argument, Earthjustice refers to an analysis by Pun and Seigneur, (Pun and Seigneur C, Conceptual Model of Particulate Matter Pollution in the San Joaquin Valley, September 8, 1998 at 3-12).

Response: EPA agrees that VOC plays a role in the formation of ammonium nitrate in the Valley. However, EPA believes that the control of VOC is not an effective method to reduce ammonium nitrate in the SJV. EPA has examined the analysis by Pun and Seigneur, as well as other material, in considering the efficacy of a VOC control strategy in the SJV. The Pun and Seigneur conceptual model is also based on the IMS 95 database, and is therefore subject to the same limitations as the photochemical modeling used in the Plan. In addition, Pun and Seigneur is based on a less sophisticated box model, compared to the more refined grid model, UAM-Aero, presented in the 2003 PM-10 Plan. The commenter overstates the conclusion of Pun and Seigneur with respect to the efficacy of VOC control. Although the paper states that the basin may be either NO_x or oxidant sensitive, it does not conclude which of the precursors is most influential in the SJV:

The ambient formation of HNO₃ may be either NO_x or oxidant sensitive. Although information regarding the dominant reaction was not available, indirect evidence from the diurnal profile of total nitrate (peak concentrations in the afternoon) seemed to indicate that the NO₂ + OH reaction was an important nitric acid production route. Thus to understand which primary pollutants govern the formation of ammonium nitrate, we need to address the oxidation potential of the atmosphere and determine which pollutants (*i.e.*, NO_x or VOCs) are the most influential for the formation of oxidants in the system.

Although Pun and Seigneur raises the need to address the oxidation potential of the atmosphere and determine which pollutants are the most influential, it does not conclude that VOC controls are absolutely required in the SJV. The

Plan's more refined modeling, based on the IMS 95 study, discussed above, indicates that ammonium nitrate concentrations are not very sensitive to VOC control (Plan at Appendix M, M-6) in the SJV. In other words, VOC controls will not have as great an effect on PM formation. The CRPAQS study should provide an improved database for more definitive results regarding the effect of VOC controls in reducing PM-10 in the SJV.

Comment 3: Earthjustice comments that the NARSTO report indicates "In the case of secondary winter PM nitrate in the SJV * * * nitrate formation is thought to be sensitive to VOC concentrations in many urban areas." The report opines:

Reductions in NO_x may not be the best course of action for reducing particulate nitrate in the possible VOC-sensitive wintertime condition. Box model simulations indicate that NO_x reductions may have the counterintuitive effect of increasing particulate nitrate formation during winter (Pun and Seigneur, 2001). Therefore, coordinated efforts will be required to formulate control strategies beneficial to both ozone and PM air quality.

Response: We believe that the NARSTO report's conclusions are subject to several limitations. They are based on "Sensitivity of Particulate Matter Nitrate Formation to Precursor Emissions in the California San Joaquin Valley," Pun and Seigneur, 2001.¹³ As mentioned above, this study is based on the IMS 95 field study and therefore is subject to the same database limitations as the UAM-Aero modeling included in the Plan. In addition, Pun and Seigneur, 2001 is based on a less sophisticated box model, and is subject to the limitations of a box model compared to the more refined grid model, UAM-Aero, presented in the 2003 PM-10 plan. Pun and Seigneur conclude:

It should be noted that the box model represents some domain-average chemistry but cannot characterize the locally specific chemical regimes. Other assumptions include stagnant conditions and aloft carry-overs of gaseous and PM pollutants. Further work should extend this box model analysis to a three-dimensional modeling study so that transport processes can be simulated and the spatial variability of the response of PM to precursors can be addressed. However, an extensive reliable database is needed for the application of a 3-D model. The forthcoming California Regional PM Air Quality Study (CRPAQS) database may provide such an opportunity.

While Pun and Seigneur indicates that the San Joaquin Valley air basin should

not be sensitive to ammonia concentrations and may be sensitive to VOC, each of these conclusions is subject to the limitations of the investigation. EPA concurs that it is important to extend this analysis to a three dimensional modeling study using a more extensive database. In the Plan, CARB has presented a more refined modeling analysis based on a three-dimensional model. The results of that modeling exercise indicate that nitrate concentrations are not very sensitive to VOC concentrations (Plan at Appendix M, M-6). Therefore, control of VOC will not be as effective as NO_x control. The forthcoming CRPAQS database will provide a more extensive, reliable database to support additional modeling. EPA expects that the modeling results of the CRPAQS study will provide additional technical information and is approving the SJVUAPCD's commitment to re-evaluate the 2003 PM-10 Plan with the results of CRPAQS and to submit a new plan to EPA by March 2006. 69 FR 5412, 5414.

Comment 4: Earthjustice comments that the VOC emissions are probably underestimated for the SJV and that it is irresponsible of the Plan to not include controls for livestock waste, a significant VOC source, when the negative effects of VOC pollution are well-known. Furthermore, Earthjustice points out that the South Coast Air Quality Management Plan relies on VOC reductions to attain the PM-10 standard and that the SJV should, as the South Coast has, take the prudent course of action by including VOC reductions.

Response: As discussed above, EPA has determined that for the purposes of section 189(b)(1)(B) and (e), VOC does not contribute significantly to PM-10 levels which exceed the standards in the SJV. While the South Coast and the SJV each have a high level of ammonium nitrate, the air basins are quite different in terrain, meteorology, and emissions. In addition, the South Coast is primarily an urban area, while the SJV is a mix of rural and urban areas. Differences in relative emissions of precursors and the atmospheric conditions unique to each basin lead to different optimal control strategies for each basin.

Comment 5: Earthjustice comments that EPA's proposal to find that VOCs "do not significantly contribute to PM-10 levels which exceed the standard" may make it extremely difficult to regulate CAFOs at all under SB 700, which contains provisions requiring the District to show that either source categories of agricultural practices "cause or contribute to violations of an ambient air quality standard" before

¹³ Pun, B. and Seigneur, C. "Sensitivity of Particulate Matter Nitrate Formation to Precursor Emissions in the California San Joaquin Valley," Environ. Sci. Technol., 2001, 35, 2979-2987.

issuing a permit or BACM/BACT analysis.

Response: As discussed above, EPA has determined that VOCs do not significantly contribute to PM-10 levels which exceed the standard; however, the CRPAQS results may change this determination. In addition, VOC reductions may be necessary for ozone attainment, and the determination with respect to PM-10 does not alter that fact.

Comment 6: One commenter (D. Morales) inquires about whether the determination that VOC controls will not lead to PM-10 reductions was made based on stationary controls under the District's jurisdiction or whether other sources such as pesticides, fertilizers and insecticides were included. The commenter recommends including these sources in the evaluation.

Response: EPA believes that all of the source categories mentioned by the commenter were included in the District's evaluation.

3. SO_x

Comment 1: Earthjustice comments that secondary ammonium sulfate can be a significant contributor to PM-10 concentrations in certain locations and at certain times of year, yet the Plan contains no controls on SO_x. Pun and Seigneur at 3-14 (ammonium sulfate third largest component of PM-2.5 at Kern).

Response: EPA believes that the contribution of ammonium sulfate to the PM-10 24-hour and annual standards is small, approximately 3-4% of the total mass. The Pun and Seigneur paper indicates that ammonium sulfate was the third largest component of PM-2.5 at the Kern Wildlife Range:

Although ammonium sulfate only accounted for 6% (<3.4 µg/m³ at Kern Wildlife Refuge, <3.7 µg/m³ at Bakersfield) of the PM-2.5 measured during IMS 95 in the San Joaquin Valley, it was the third largest component at the rural site of Kern Wildlife Refuge.

The relative contribution of ammonium sulfate to PM-2.5 differs from the contribution to PM-10. The percentage contribution of ammonium sulfate to PM-10 levels in the San Joaquin Valley is low, especially at the locations exceeding the PM-10 24-hour and annual standards. The Plan at Appendix N, N39-43 lists the sulfate mass determined by Chemical Mass Balance model, based on a chemical analysis of the filters on days when the PM-10 standards were exceeded. The contribution of the sulfate mass to the 24-hour standard ranges from 2.7 to 7.2 µg/m³, approximately 3.5 to 4% of the total PM-10 mass. The contribution of

the sulfate mass to PM-10 concentrations violating the annual standard is 2.6 to 3.1 µg/m³. Plan at Appendix N, N-11.

Comment 2: Earthjustice comments that the SCAQMD regulates all PM-10 precursors, including SO_x.

Response: The relative importance of ammonium sulfate in particulate matter in the South Coast Air Basin is not identical to the San Joaquin Valley Air Basin. The South Coast Air Basin has measured a maximum 24-hour sulfate concentration of 20.6 µg/m³,¹⁴ substantially greater than the values of 2.7 to 7.2 µg/m³ recorded for the SJV (see above). Because the technical analysis done for the SJV does not indicate that SO₂ was a significant contributor to violations of the NAAQS in the SJV, it is not necessary to control SO_x in the SJV to expeditiously attain the NAAQS.

B. Emission Inventory

Comment 1: Earthjustice comments that the emissions inventories are incomprehensible, that specific activity levels, emissions factors and models are only summarized in the Plan, and that the emissions factors are spread through numerous studies, memorandums and documents on a compact disk available only by request. Earthjustice cites EPA's TSD comment that the inventory "is a massive collection of data and requires a great deal of time to review* * *" but disagrees with EPA that the incomprehensibility is a "minor comment." Earthjustice states that the inventories do not meet minimum data reporting documentation standards in EPA guidance, and thus should be returned to the State for modification.

Response: The amount of data used to develop, maintain and update the emissions inventories for the SJV, a large and diverse area, is massive. The District and State have provided a detailed discussion of how the inventories are developed and summaries of the inventories in the 2003 PM-10 Plan.¹⁵ The reference documents, R1 and R2, are provided on a compact disk (CD-ROM) and include numerous spreadsheets with volumes of information. Providing these documents

in hard copy would require vast amounts of paper.

EPA believes that the information submitted to support the inventories is sufficient. The 2003 PM-10 Plan includes many summaries of the different types of inventories needed for the Plan, the compact disk provides the necessary documentation supporting how the inventories were derived, and supporting studies and memoranda regarding inventories are also included in the docket for this rulemaking. The State and District are also available to help interested parties find any supporting data for the inventories. While EPA notes the difficulty of evaluating these inventories due to the immense amount of information involved (see TSD, page 9) and the complexity of the airshed, EPA does not believe that the inventories are incomprehensible and need to be returned to the State. The summaries provided in the 2003 PM-10 Plan are very comprehensible and the supporting documentation on compact disk is available to any interested parties.

Comment 2: Earthjustice comments that the Plan omits a number of critical pollution sources from the emissions inventory (*i.e.*, cultivation emissions, agricultural and industrial bulk materials, poultry emissions, and windblown dust from orchard and vineyards). Earthjustice comments that the ammonia inventory is possibly underestimated due to using estimates (from Census of Agriculture) that may underestimate the number of poultry and cows. Earthjustice then comments that the emissions inventory lacks emissions from leaf blowers and general landscape and maintenance activities and that these emissions should be included in the Plan and not put off as "further study measures."

Earthjustice also comments that there were numerous significant changes made to the inventories which are unjustified. Earthjustice states that drastic reductions in emissions for agricultural sources were made during 2002-2003 based on "stakeholder suggestions" rather than scientific evidence. Changes noted by Earthjustice include: agricultural land preparation emissions decreased by approximately 20,000 tons per year of PM-10; almond shaking emissions factor (EF) decreased by ten times from 3.7 to 0.37; CARB's almond sweeping EF of 13.1 pound PM-10/acre was rejected and replaced with a 3.7 EF; calf and heifer populations were excluded from dairy operation emissions; and changes were made to the internal combustion engine emissions, dropping it 275% from 47 tpd of NO_x to 17 tpd of NO_x.

¹⁴ 2003 South Coast Air Quality Management Plan, page 2-21. <http://www.aqmd.gov/aqmp/AQMD03AQMP.htm>.

¹⁵ See Chapter 3, 2003 PM-10 Plan, Appendix B: Basin-Wide Summary of District's On-road Motor Vehicle Emissions Inventory; Appendix C: Updated Emissions Inventory Category Changes; Appendix D: Seasonal Emissions Inventories; Appendix J: Attainment Inventories; R1: Detailed Annual Emissions Inventories (CD-ROM); R2: Detailed Seasonal Emissions Inventories (CD-ROM).

Earthjustice also notes that EPA was “surprised” by the “relatively low emissions estimates” for sand and gravel and the Plan does not make any commitment to further address this.

Response: As stated in the 2003 PM-10 Plan:

Emission inventories are never considered to be entirely complete at one given time. * * * [I]nventories can always be improved with the use of better emission factors and activity data. The District, in cooperation with ARB, is committed to continually updating the emission inventory as research studies, emission factor updates, and other information become available. When emissions data change dramatically, the District is committed to revising the inventory and to ensuring that any impact is reflected in the control strategy and the attainment demonstration.

Plan at 3-4.

EPA concurs with the above statement by the District. CAA section 172(c)(3) requires a “comprehensive, accurate, and current” inventory of actual emissions from all sources; however EPA recognizes that inventories are not static, but are constantly being updated and renewed as new information, techniques and studies are made available.¹⁶ The State and District used the best available inventories at the time of plan development. If a State excludes any of the emission sources from its emission inventory, it must provide documentation on why the source(s) were excluded (PM-10 Emission Inventory Requirements, Final Report, September 1994, Prepared for: Emission Inventory Branch (MD-14), Sulfur Dioxide/Particulate Matter Programs Branch (MD-15), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, NC 27711, page 20). CARB has provided additional information addressing why sources were emitted (April 21, 2004 memorandum from Sylvia Morrow and Patrick Gaffney to Kurt Karperos, Follow-up information on San Joaquin Valley PM10 Plan emission inventory issues raised in public comment (Morrow and Gaffney memo)) and EPA expects the inventory will be updated as part of the State and District’s commitment to submit a new plan by March 2006. EPA generally relies on the State and local agencies to develop, maintain and update their inventories. CARB has a Web site with additional information on how California air

districts create, maintain and use emissions inventories. The Web site is: <http://www.arb.ca.gov/emisinv/district/districtresources.htm>.

For categories where Earthjustice is claiming that there are missing source category estimates, the Morrow and Gaffney memo provides additional discussion of how these emissions will not impact the attainment demonstration and how additional data may be obtained on these categories in the future. For categories where the emissions estimates have changed, generally going down, the Morrow and Gaffney memo provides additional discussion on what the lower estimates were based on and why they were used. The Morrow and Gaffney memo also addresses comments raised by D. Howekamp in a declaration supporting Earthjustice’s comments. EPA has reviewed the 2003 PM-10 Plan’s inventory and the Morrow and Gaffney memo and continues to believe that the Plan’s inventory was the best available inventory at the time of Plan development and thus satisfies the CAA’s requirement for a comprehensive, accurate, and current inventory. EPA expects that the District and State will include additional inventory revisions in their mid-course review due in March 2006.

Comment 3: Earthjustice comments that the base year relied upon to determine de minimis levels is inconsistent and that different inventories are used in order to exempt sources. The Plastic and Plastic Products Manufacturing source category is provided as an example of a category whose de minimis determination is based on a different base year inventory (2003 PM-10 Plan, Table 4-8). In addition, they believe that federally approved control measures are necessary to ensure that de minimis source categories remain below the de minimis levels.

Response: See section II.C.4. below.

Comment 4: One commenter (LaSalle) states that emission estimates by CARB have been proven inaccurate. The commenter indicates that CARB estimates of dairy ROG emissions have historically been too high and CARB has failed to correct the problem.

Response: As discussed above, the emission inventories are continually being improved and updated with new data. EPA believes that CARB and the District used the best available information at the time of plan development and understand that further refinements will be included in future plan submittals.

C. BACM Demonstration

1. Commitments for BACM/BACT

Comment 1: Earthjustice comments that a large number of significant source categories, in addition to Ag-CMP-regulated sources, are not subject to adopted—or even proposed or identified—control measures. Until the relevant requirements are adopted—and no longer subject to change in the rule development process—for each of these source categories, EPA cannot conclusively determine that the Plan provides for the implementation of BACM/BACT for all significant sources of PM-10 and PM-10 precursors. As a result, Earthjustice claims that full approval of the Plan is improper. Earthjustice cross-references its additional comments on commitments which are addressed in section II.H below.

Response: Section 189(b)(1)(B) requires that serious area PM-10 plans include “[p]rovisions to assure that the best available control measures for the control of PM-10 shall be implemented no later than 4 years after the date the area is classified (or reclassified) as a Serious Area.” Nothing in this language either requires a state to have adopted controls in place before a SIP revision can be approved into its PM-10 plan or forbids the adoption of an enforceable commitment to meet the statute’s BACM¹⁷ requirement.

Consistent with this statutory language, EPA has historically determined that an enforceable commitment to adopt and implement BACM in a SIP meets this statutory requirement since it constitutes a “provision to assure that BACM is implemented” by a fixed deadline. As a result, the commenters’ complaint that “[b]y definition the plan fails to implement BACM/BACT for all source categories for which no developed control measures exist” has no merit since the statute itself does not impose such a requirement. Because the statute does not define what is a “provision to assure BACM is implemented,” EPA may adopt an interpretation reasonably accommodated to the purpose of the statutory provision. *Chevron U.S.A., Inc.*

¹⁷ EPA has interpreted the BACM requirement in CAA section 189(b)(1)(B) to include BACT. “State Implementation Plans for Serious Areas, and Attainment Date Waivers for PM-10 Nonattainment Areas Generally; Addendum to General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990,” 59 FR 41998, 42009 (August 16, 1994)(Addendum).

¹⁶ Once a plan has been adopted, EPA does not generally require plan elements such as emissions inventories to be revisited and updated in response to new information. The U.S. Court of Appeals for the District of Columbia Circuit recently addressed a similar issue and affirmed EPA’s position. *Sierra Club v. EPA*, 356 F.3d 296 (D.C. Cir. 2004).

v. *Natural Resources Defense Council*, 467 U.S. at 842–44.¹⁸

In accepting enforceable commitments to meet the requirements of section 189(b)(1)(B), however, EPA has required states to undertake an analysis to ensure that the regulation ultimately adopted pursuant to the commitment will represent a BACM level of control. As we describe in our proposed rule, a state must determine the technical and economic feasibility of potential control measures for each of the significant source categories. 69 FR 5412, 5418. Thus the measure that is the subject of a commitment must describe generally the type and level of control to be adopted.

Moreover, once the ultimate control measure is adopted and submitted to EPA, the Agency undertakes an additional evaluation to ensure that that measure meets the statute's BACM requirements. *See, e.g.*, the Arizona rulemakings in which EPA initially approved as RACM¹⁹ a requirement in a state statute to adopt and implement best management practices for agricultural operations and subsequently determined that the rules adopted pursuant to the statute represented RACM/BACM. 64 FR 34726 (June 29, 1999); 66 FR 51869 (October 11, 2001); 67 FR 48718 (July 25, 2002).

2. Agricultural Conservation Management Practices (Ag CMP) Program

Comment 1: Earthjustice comments that the Ag CMP program exists only in conceptual form, accounts for a large portion of fugitive dust emissions in the SJV and fails to provide for BACM-level controls for several reasons.

First, Earthjustice comments that the Ag CMP program requires growers to select only one CMP per category (*e.g.*, categories include unpaved roads, land preparation, harvest, etc.) which violates the RACM and BACM standards. Earthjustice argues that the RACM process requires adoption of all RACM and a reasoned justification must be provided for any rejected measures. Allowing growers to select only one CMP per category would allow growers to avoid adopting all RACM.

Response: As discussed in our proposed rule, the District has chosen to reduce emissions from agricultural sources with a program, *i.e.*, the Ag CMP program, that provides more flexibility than a typical command and control

regulation. 69 FR 5412, 5420. The District's 2003 PM–10 Plan commits to adopt and implement a program that will achieve BACM level controls by a specific schedule and 33.8 tons of emissions reductions. The 2003 PM–10 Plan also states that:

[p]articipation in the Ag CMP program will be mandatory, but the growers will, by their own choosing, select measures most appropriate for their operation. The source categories include (1) unpaved roads, (2) unpaved vehicle/equipment traffic areas, (3) land preparation, (4) harvest, and (5) other—including windblown PM10 from open areas, and agricultural burning * * *. Growers must select at least one management practice from each of the five categories. * * *

2003 PM–10 Plan, page 4–25.

More than one management practice may be selected by a grower if it is technically and economically feasible, but a BACM level of control will vary from grower to grower. The plan points out that:

[e]missions from agricultural sources vary by many factors that are beyond the control of the grower. For example, drought conditions and related cuts in water deliveries can lead to increased fallow lands and more wind blown dust emissions. Market conditions can change quickly and can turn a profitable crop into a losing proposition. This limits the ability of growers to absorb the costs of controls in many cases.

Id.

The regulatory approach selected by the District is similar to those adopted by the SCAQMD for the South Coast Air Basin and by the Arizona Department of Environmental Quality for the Phoenix (Maricopa County) PM–10 nonattainment area. *See, e.g.*, discussion of the South Coast and Phoenix approaches at 66 FR 50252, 50268–50271 (October 2, 2001) and 67 FR 48730 (July 25, 2002). As we have pointed out in the context of the Phoenix program, farming operations are inherently complex and highly variable and therefore PM–10 controls need to be tailored to individual circumstances. Moreover, there is a limited amount of scientific information concerning the emission reduction potential and cost effectiveness of the available and known control measures for agricultural operations. Therefore, EPA has previously concluded that, given this rudimentary state of knowledge, requiring more than one control measure cannot be technically justified and could cause an unnecessary burden on farmers. 66 FR 50268, 50269.

We have also previously found that allowing sources the discretion to choose from a range of specified options is particularly important for the

agricultural sector because of the variable nature of farming. As a technical matter, neither we nor the State is in a position to dictate what precise control method is appropriate for a given farm activity at a given time in a given locale. The decision as to which control method from an array of methods is appropriate is best left to the individual farmer. Moreover, the economic circumstances of farmers vary considerably. As a result, it is imperative that flexibility be built into any PM–10 control program for the agricultural source category whether that program is required to meet the RACM or BACM requirements of the Act. *Id.*

Furthermore, a requirement that an individual source select one control method from a list, but allowing the source to select which is most appropriate for its situation, is a common and accepted practice for the control of dust. For example, in our PM–10 federal implementation plan (FIP) for Phoenix, we promulgated a RACM rule applicable to, among other things, unpaved parking lots, unpaved roads and vacant lots. The rule allows owners and operators to choose one of several listed control methods (pave, apply chemical stabilizers or apply gravel). 40 CFR 52.128(d).²⁰ In programs allowing a choice of compliance methods, it is clearly not feasible to require a regulated source to provide a reasoned justification for choosing one option over another.

As with the South Coast and Phoenix programs, EPA believes that the 2003 PM–10 Plan's commitment described above, in our proposed rule and in the 2003 PM–10 Plan provides the flexibility necessary to allow for the variability in farming while still achieving a BACM level of control. Indeed, flexibility is more important in the SJV because of the far greater diversity and number of crops, acreage and soils. For example, in 1997, there were over 9 million acres farmed in the SJV as compared to approximately 700,000 acres in Maricopa County.²¹

²⁰ See also SCAQMD Rule 403 (providing for alternative compliance mechanisms for the control of fugitive dust from earthmoving, disturbed surface areas, unpaved roads etc.). We approved this rule on December 9, 1998 (63 FR 67784). See also our approval of Maricopa County Environmental Services Department (MCESD) Rule 310 and Rule 310.01 as meeting the RACM/BACM requirements of the CAA (67 FR 48718, July 25, 2002) and EPA's proposed approval of Sections 90 through 94 of the fugitive dust regulations for Clark County as meeting those requirements (68 FR 2954, January 22, 2003).

²¹ 1997 Census of Agriculture, California Agricultural Statistics Service and Arizona Agricultural Statistics Service, U.S. Department of Agriculture (USDA).

¹⁸ EPA's approach here does not represent any departure from prior Agency actions approving SIPs. See section II.H.

¹⁹ CAA section 189(a)(1)(C) contains the same language as section 189(b)(1)(B) with respect to the implementation of RACM.

Moreover, in 2002, there were 350 crops grown in California, 77 of which were found in large-scale commercial operations, and there were significant livestock and poultry operations. Six of the 10 agricultural counties in California are in the SJV.²² In contrast, in Maricopa County in 2002, five crops (cotton, wheat, corn, alfalfa and hay) comprised 83.6% of the acres farmed.²³

EPA also believes that the SJV Ag CMP approach is consistent with CAA section 172(c)(1) requiring the implementation of all RACM. EPA has long provided for certain limitations on that requirement. For example, EPA has not required the implementation of measures that would not advance attainment or measures for source categories that are *de minimis*. See 57 FR 13498, 13540, 13560 (April 16, 1992). These limitations have been upheld by the courts. See, e.g., *Ober v. Whitman*, 243 F.3d 1190 (9th Cir. 2001) and *Sierra Club v. EPA*, 294 F.3d 155 (D.C. Cir. 2002). Similarly, and for the reasons discussed above, EPA has concluded that requiring more than one measure for the agricultural sector is not currently reasonably available.

Comment 2: Earthjustice claims that the Ag CMP program does not meet BACM requirements since BACM is more stringent than RACM.

Response: When a moderate area is reclassified to serious, the requirement to implement RACM in section 189(a)(1)(C) remains. Thus, a serious area PM-10 plan must also provide for the implementation of RACM as expeditiously as practicable to the extent that the RACM requirement has not been satisfied in the area's moderate area plan.

However, we do not normally conduct a separate evaluation to determine if a serious area plan's measures also meet the RACM requirements as interpreted by us in the General Preamble at 13540. This is because in our serious area guidance (Addendum at 42010), we interpret the BACM requirement as generally subsuming the RACM requirement (*i.e.* if we determine that the measures are indeed the "best available," we have necessarily concluded that they are "reasonably available"). Therefore, when, as here, a control measure is being developed to meet both the RACM and BACM requirements, a separate analysis to determine if the measures represent a RACM level of control is not necessary. In such a case, the usual progression

from RACM to the generally more stringent BACM does not occur. The SJV is not unique in this respect. In the Phoenix area we approved State legislation and, subsequently, a general permit rule, for the agricultural sector as meeting both RACM and BACM requirements. See discussion at 66 FR 50252, 50254-50255.

Comment 3: Earthjustice comments that since there is no emission reduction target there is nothing to prevent operators from selecting only the least effective measure in a category when other more effective and feasible measures may be available. At a minimum, operators should be required to implement the most effective measure from each category to meet BACM standards.

Response: As stated previously, the 2003 PM-10 Plan commits to achieve a BACM level of control by reducing PM-10 emissions for the overall agricultural category by 33.8 tons per year by 2010. 2003 PM-10 Plan, 4-29. For the reasons discussed in our response to the previous comment, flexibility is needed in any program controlling agricultural sources. The Ag CMP program will require at least one measure from each of the five categories under the program, thus, where it's economically and technically feasible, more than one measure may be implemented.

Comment 4: Earthjustice comments that exemptions found in Draft District Rule 4550 (*i.e.*, agricultural operations of less than 100 acres from the CMP program and animal feeding operations of various sizes) are not justified. Exemptions should be based on whether there is a *de minimis* contribution to the PM-10 problem and no demonstration is made as to whether or not these smaller sources can not be included. Comments also point out that smaller exemptions are found in other areas.

Response: EPA has been working closely with the District during the development of Rule 4550 to ensure that the Ag CMP program will achieve a BACM level of control. That rule, however, is not the subject of this rulemaking. We will thoroughly evaluate the rule once it has been adopted by the District and submitted to us. Earthjustice will of course be able to comment on any rulemaking action EPA may take on Rule 4550.

EPA notes, however, that small quantity exemptions can be justified on an economic basis. Thus, even if sources smaller than 1 acre result in significant emissions, if control costs are too high, the BACM requirement may be deemed met with no control. Addendum at 42010. Most federally-enforceable prohibitory rules have some sort of

analogous small quantity exemption. See, for example, 40 CFR 60.32b(a), 40 CFR 63.100(b)(4); District Rule 4305.2.1.

Comment 5: Earthjustice comments that the Ag CMP program does not require BACM for agricultural windblown dust. Windblown dust is one of the most significant contributors to PM-10 in the SJV. Under the CMP program, windblown dust requirements are combined with other categories such as agricultural burning which is already subject to existing District rules and Senate Bill 705. Nothing prevents an operator from satisfying the CMP program by only complying with the agricultural burning requirements. Further, there is no evaluation of the Coachella Valley windblown dust measures.

Response: The District's meteorological analysis of wind speeds associated with PM-10 exceedances found that the exceedances largely occurred during periods of low winds and stagnant conditions in the fall and winter. 2003 PM-10 Plan, ES-10, 5-6; see also section II.L. below. Thus, windblown dust is not generally considered to be a significant contributor to PM-10 exceedances in the SJV and EPA believes that windblown dust measures are therefore not necessary for attaining the PM-10 standards.

The District recognizes, however, that there may be specific localized situations that warrant windblown dust measures and has included them in the Ag CMP program so that growers will have the flexibility to use them as needed (as well as in District Regulation VIII).

Comment 6: Earthjustice comments that Draft Rule 4550 fails to set forth criteria by which the air pollution control officer (APCO) will implement the Ag CMP Program. Draft Rule 4550 currently allows the APCO to weaken the Handbook, grant exemptions from the program, or to increase the number of control categories, all without public input or a SIP revision. Commenters believe that the CMP plans should be available for public review (to same degree as CAA Title V or operating permits are), should contain a mechanism to ensure citizens are able to verify that growers are participating and the CMP plans are being implemented, and that adjustments to rule applicability thresholds are subject to public review.

Response: See our response to the previous comment. EPA is working with the District as it develops Rule 4550 to ensure that the Ag CMP program will achieve a BACM level of control. While Rule 4550 is not the subject of today's

²² 2002 California Department of Food and Agriculture Resource Directory.

²³ 2002 Arizona Agricultural Statistics Service, USDA.

action, we note that the most recent draft limits the discretion of the APCO.

Comment 7: Earthjustice comments that the Ag CMP Program must contain actual control measures. The "Ag CMP List" must be included as part of Rule 4550 in order to allow citizens to challenge the substantive components of the list. Because EPA concedes that the lists were not available for EPA review for the proposal and without the lists, Earthjustice believes there is no basis for EPA's conclusion that the Ag CMP program will achieve a BACM level of control (or even a RACM level). EPA justifies that the Ag CMP program's program description and similarity to other EPA approved programs is enough to satisfy BACM, but Earthjustice believes this comparison must rely on a comparison of actual requirements. Since there are no adopted measures for the Ag CMP program, Earthjustice believes EPA cannot approve the program as BACM. Further, Earthjustice notes that EPA's approval of Maricopa's best management practices (BMP) general permit rule as BACM was based on a rule that was adopted and already approved as RACM.

Response: EPA believes that the Agency can approve, as meeting the CAA's BACM requirement, the commitment to adopt and implement the Ag CMP Program based on the description provided in the 2003 Plan. As discussed previously in section II.C.1. above, we believe that section 189(b)(1)(B) does not require that BACM be in the form of an adopted rule. Moreover, the Plan, pages 4–23 to 4–29, contains a detailed description of the scope of the program. EPA believes that the Plan's commitment to implement a BACM level of control for agricultural sources is sufficient to satisfy the BACM requirement. EPA will continue to work with the District as it develops Rule 4550 to ensure that the Ag CMP program will achieve a BACM level of control.

In fact, the history of the control of agricultural operations in Maricopa County, alluded to by the commenter, is instructive. In August 1988, EPA promulgated a FIP for the Phoenix PM-10 moderate nonattainment area.²⁴ Among other things, the FIP provided for the implementation of RACM for agricultural fields and aprons via an enforceable commitment to propose and finalize adoption of RACM for those sources in September 1999 and April 2000, respectively. In the preamble to the rule EPA explained that the Agency intended to convene a stakeholder

process to develop the specific RACM that would ultimately be proposed for adoption and that EPA intended the RACM to take the form of BMPs. 63 FR 41326 (August 3, 1988). Thus, rather than an adopted regulation, EPA promulgated a commitment accompanied by a conceptual description of the program to meet the CAA's RACM requirements.

In 1997, Arizona passed legislation establishing an Agricultural BMP Committee and directing the Committee to adopt by rule by June 10, 2000, an agricultural general permit specifying BMPs for reducing PM-10 from agricultural activities. The legislation also required that implementation of the agricultural controls begin by June 10, 2000 with an education program and full compliance with the rule be achieved by December 31, 2001. See Arizona Revised Statutes (A.R.S.) 49–457. On June 29, 1999, we approved the legislation as meeting the RACM requirements of the CAA and withdrew the FIP commitment to adopt and implement RACM for agricultural fields and aprons in the Maricopa area. 64 FR 34726. While more extensive than the FIP commitment, the legislation approved by EPA as meeting BACM is less detailed than the Ag CMP Program provisions in the SJV 2003 Plan.

While we approved the Arizona legislation as RACM, it was the State's intent that it also serve as BACM for agricultural sources in the serious area PM-10 plan. After a series of meetings during 1999 and 2000, the Agricultural BMP Committee adopted the agricultural general permit rule and associated definitions, effective May 12, 2000, at Arizona Administrative Code (AAC) R18–2–610, "Definitions for R18–2–611," and 611, "Agricultural PM-10 General Permit; Maricopa PM10 Nonattainment Area" (collectively, general permit rule). The general permit rule contains the BMPs that regulated sources are required to regulate. We approved the general permit rule as meeting the CAA requirement for RACM on September 10, 2001 (66 FR 34598) and for BACM on July 25, 2002 (67 FR 48718).

Thus, in the Phoenix area, the development of RACM/BACM controls took a number of years and evolved from a simple commitment to adopt and implement RACM to a fully developed general permit rule with specific BMPs that provides for a BACM level of control. The evolution from a commitment through an expanded conceptual approach to the final rule was necessary for a number of reasons, chief among them that the agricultural sector had traditionally been

unregulated. As such, extensive stakeholder input, among other things, was absolutely essential. In the SJV, the development of a mature regulatory program is necessarily following a similar path from concept to specific controls.

Comment 8: One commenter (D. Moralez) inquires about the mechanism for including VOC controls in the Ag CMP program. Commenter also recommends a recordkeeping requirement for pesticides and other VOC-containing materials applied to agricultural crops in the Ag CMP program.

Response: The 2003 PM-10 Plan does not include VOC reductions from the Ag CMP program. The District will be developing their ozone plan in coming months which may address VOC emissions from pesticides.

3. Ag Crop Processing Losses and Ag Products Processing Losses

Comment 1: Earthjustice comments that the Plan fails to implement BACM for agricultural crop processing losses and agricultural products processing losses. The Plan has identified these as significant source categories. As a result, it is not sufficient that the Plan merely states the District's unenforceable intention to update these inventory items.

Response: After the close of the comment period, we discussed this and other comments with District staff and received copy of a March 30, 2004 memorandum from George Heinen (SJVUAPCD) to Scott Nester (SJVUAPCD) regarding, "EPA questions on 2003 PM10 Attainment Demonstration Plan" (SJVUAPCD's 3/30/04 memo). As discussed in this memo, these categories were vestiges of past emission inventory practices and encompassed field activities (crop processing) and post-harvest activities (product processing). Implementation of BACM for the field activities is addressed by other components of the Plan, including the Conservation Management Practice program and state and federal mobile source controls. Implementation of BACM for the post-harvest activities, which are primarily stationary heat sources, is also addressed by other components of the Plan, including SJV Rule 4306 (boilers, steam generators and process heaters), commitment C (dryers), and commitment I (small boilers, steam generators and process heaters). 2003 PM-10 Plan, 4–23. The statement in the Plan regarding inventory improvements was not intended as a demonstration of BACM implementation.

²⁴ The area was subsequently reclassified as a serious PM-10 nonattainment area. 61 FR 21372 (May 10, 1996).

4. Plastics and Plastic Products Manufacturing Sources

Comment 1: Earthjustice comments that the Plan fails to implement BACM for plastics and plastic products manufacturing sources. The Plan does not demonstrate that the regulations adopted in 2000 fulfill BACM nor does the Plan justify that it is appropriate to use an inventory for a different year in evaluating emissions from this category as *de minimis*. Furthermore, the Plan does not demonstrate that emissions from this source category will be *de minimis* in future years, when emissions are projected to increase.

Response: SJVUAPCD's 3/30/04 memo explains that after the Plan was developed, the District determined that emissions had been overestimated for this source category. It appears that the 1.5 tons per day (tpd) emission estimate was based on obsolete inventory methods preceding consolidation of the eight county air pollution control districts into the SJVUAPCD. SJVUAPCD's current emissions estimate, based on information for each of the specific sources within the category, is 0.07 tpd of PM-10. We believe that this information is derived from a more accurate methodology than the 1.5 tpd estimate and is well below the *de minimis* level of .9 tpd for PM-10. 2003 PM-10 Plan, pages 4-14 to 4-15.

5. Cotton Gins

Comment 1: Earthjustice comments that the Plan fails to implement BACM for cotton gins. The Plan merely describes various measures that could be adopted to implement BACM, and does not even clearly commit to specific requirements.

Response: We agree that the description of this control measure on page 4-30 of the Plan does not explicitly commit to specific requirements for cotton gins. However, language on pages 4-22, 4-23 and 4-30 clearly and explicitly commits to 1.5 tpd of NO_x emission reductions from this category. SJVUAPCD's 3/30/04 memo explains that the 1.5 tpd commitment was based on an assumption that high efficiency 1D-3D and 2D-2D cyclones would be required of existing sources. EPA's TSD noted that 1D-3D cyclones are considered BACT when issuing permits for new and modified sources in the SJV. BACT determinations associated with permits for new and modified sources are generally at least as stringent as BACM for existing sources because it is generally more cost effective to control new sources than existing sources. The Plan committed to adopt

BACM requirements for cotton gins by the 4th quarter of 2004. SJVUAPCD has drafted Rule 4204 to regulate cotton gins, held workshops on the draft rule, and appears on schedule for 4th quarter 2004 adoption. The April 6, 2004 draft staff report for Rule 4204 includes analysis of several alternative control strategies (e.g., rotary drum filters, mechanical conveyors and plenum chambers) which further supports the conclusion that 1D-3D cyclones generally fulfill BACM for this source category.

6. Manufacturing and Industrial Fuel Combustion Sources

Comment 1: Earthjustice comments that the Plan fails to implement BACM for manufacturing and industrial fuel combustion sources. The Plan merely describes generalized control concepts that could be developed, and does not even clearly commit to specific requirements. No basis is provided for EPA's conclusion that controls to be developed for industrial water heaters will generally establish 30 ppm NO_x limits similar to SCAQMD Rules 1146.1 and 1146.2.

Response: We agree that the descriptions of these control measures on pages 4-31, 4-43 and 4-44 of the Plan do not explicitly commit to specific requirements for manufacturing and industrial fuel combustion sources. However, the language on pages 4-22, 4-23, 4-30, 4-31 and 4-42 to 4-44 clearly and explicitly commits to 2.2 tpd of NO_x emission reductions from this category. SJVUAPCD's 3/30/04 memo explains that the 2.2 tpd commitment was based on an assumption that a 30 ppmv standard would be applied to these sources. This memo notes that, "as part of the Plan development effort, the District examined similar, existing standards and found the 30 ppmv limits in SCAQMD Rules 1146.1 and 1146.2 to be the most stringent rules, at that time." SCAQMD staff reports for these actions include analysis of several control measures and estimates cost effectiveness of Rule 1146.2 requirements as high as \$8,400/ton for retrofitting some units.

7. Oil Drilling and Workover

Comment 1: Earthjustice comments that the Plan fails to implement BACM for oil drilling and workover sources. The Plan fails to evaluate lower emission limits such as those promulgated in Ventura County Rule 74.16 and SJVUAPCD 4701 and the State has not submitted a revised version of SJVUAPCD Rule 2280.

Response: The TSD associated with our proposed approval of the Plan

explains that SJVUAPCD Rule 2280 and CARB's portable equipment registration program (PERP, see 13 California Code of Regulations 2450-2466) provide BACM for this category. These rules establish numerous operational requirements and emission limitations for applicable engines. Sources may choose to register engines, including those used for oil drilling and workover, under either PERP or SJVUAPCD's analogous Rule 2280 program. Most sources register under PERP because it is less expensive and allows use of portable engines throughout the state.

We believe that PERP does on balance provide more stringent requirements than Ventura County Rule 74.16 for engines used in oil drilling and workover. While Ventura County Rule 74.16.B.1 requires electrification of drilling operations, most sources have been exempted from this requirement under section C of the rule and few, if any, new wells have electrified as a result of this requirement (per telephone conversation between Karl Krause, Ventura County APCD, and Andrew Steckel). As a result, most sources subject to Ventura County Rule 74.16 must comply with the State (adopted January 27, 2000 <http://www.arb.ca.gov/regact/ciengine/ciengine.htm>) and national (40 CFR 89.112) Tier 1 NO_x standard for off-road compression ignition engines. By comparison, the PERP program has required most engines to comply with Tier 1 or more stringent Tier 2 standards. In addition, Ventura County Rule 74.16 applies only to new well drilling, while PERP applies to both new wells and well workover. We note that comparison to SJVUAPCD Rule 4701 limits is not necessary because Rule 4701 was not designed to control engines used for oil drilling and workover.

8. Residential Water Heaters

Comment 1: Earthjustice comments that the Plan fails to implement BACM for residential water heaters. The Plan does not demonstrate that Rule 4902's 40 nanogram/joule limit fulfills BACM in light of the 10 nanogram/joule limit in SCAQMD Rule 1121.

Response: SJVUAPCD's 3/30/04 memo explains that there is significant concern that Rule 1121's technology-forcing limit of 10 nanogram/joule may not be adequately available by the compliance deadlines. The memo notes that SCAQMD has received approximately \$1 million in mitigation fees from manufacturers to date for failing to meet Rule 1121's currently applicable 20 nanogram/joule limit, suggesting that this limit is also not yet adequately available. In addition, all

manufacturers have requested a delay in implementing Rule 1121's future effective 10 nanogram/joule limit. As discussed in the TSD for EPA's proposed approval of the Plan, when Rule 1121's more stringent limits are demonstrated to be adequately available, they may become a basis for future BACM determinations.

9. Charbroiling

Comment 1: Earthjustice comments that the Plan fails to implement BACM for charbroiling sources. Neither the Plan nor EPA has provided a demonstration that SJVUAPCD Rule 4692 or SCAQMD Rule 1138 fulfills BACM.

Response: In developing Rule 4692, *Commercial Charbroiling*, SJVUAPCD investigated the scope of the source category, currently available control technologies, emission reduction potential and cost-effectiveness of various options.²⁵ SJVUAPCD determined that flameless catalytic oxidizers can reduce PM-10 emissions by 83% and VOC emissions by 86%, with an overall cost-effectiveness of approximately \$3,000 per ton of reduced emissions. Fiber-bed filters, thermal incinerators, and activated carbon adsorbers were among the other control technologies considered. SJVUAPCD acknowledged that some technologies (e.g., thermal incineration) may result in higher control efficiencies, but SJVUAPCD believes these technologies are not practical to require for every source because of the overall expense and cost effectiveness. SJVUAPCD estimates that implementation of Rule 4692 will reduce PM-10 emissions by 0.11 ton/day. Based on the requirements contained in Rule 4692 and the detailed analyses provided in the associated staff report, we believe SJVUAPCD has adequately demonstrated implementation of BACM for commercial charbroilers.

The TSD associated with our proposed approval of the Plan further notes that SJVUAPCD used SCAQMD Rule 1138 as guidance in developing SJVUAPCD Rule 4692 for this category. The TSD associated with our proposed approval of the Plan further notes that SJVUAPCD used SCAQMD Rule 1138 as guidance in developing SJVUAPCD Rule 4692 for this category. SCAQMD Rule 1138 is considered the most effective district regulatory standard in effect for this source category and SJVUAPCD Rule 4692 is nearly identical. See

SJVUAPCD's 3/21/02 staff report for Rule 4692.

10. Regulation VIII Fugitive Dust Sources

Comment 1: Earthjustice states that the "Fugitive PM-10 Management Plan" (FPMP) compliance alternative in Rules 8061, 8071 and 8081 does not appear to have a basis for its inclusion and no other district has such a provision. The commenter compares Rule 8081's 20% opacity limits, stabilized unpaved road requirements, and concrete compliance options (e.g., watering) to the FPMP compliance alternative's minimum control efficiency requirement of 50% and its lack of a clear mandate to comply with 20% opacity. On this basis, the commenter states that the FPMP compliance alternative does not add any clear benefit to the rule and, in fact, could weaken it.

Response: The FPMP's requirement that 50% control efficiency be achieved is equivalent to the minimum control efficiency expected from compliance with Rule 8081's surface stabilization requirement²⁶ which otherwise applies. We agree that the FPMP alternative does not contain an explicit requirement for sources to comply with 20% opacity. However, it is unclear whether compliance with 20% opacity would necessarily increase control efficiency for unpaved roads or parking areas above the minimum 50% control mandated. Also, while the FPMP alternative does not specify control measure options from which applicants can choose, all FPMPs must include the control measure to be applied (see Rules 8011 and 8081, section 7.5.4.) along with specific information as to the method, frequency and intensity of the application. Therefore, the FPMP alternative offers the same minimum control efficiency (50%) and a defined method of control as would otherwise be achieved by compliance absent a FPMP.

Potential benefits of FPMPs include: owners/operators expressly planning in advance where and when vehicle trip thresholds in the rule will be exceeded and the details of dust suppressant application or other treatment; an emphasis on preventative control as opposed to remedial control in response to a 20% opacity exceedance, and; a potential mechanism for targeted inspections by the District.

Comment 2: Earthjustice states that the Rule 8081 FPMP administrative

requirement allowing growers to submit plans to the Natural Resources Conservation Service (NRCS) instead of to the SJVUAPCD is not justified. The NRCS' role should be limited to providing technical information rather than evaluating compliance alternatives.

Response: Although FPMPs do not need to be submitted to the District for approval, the District is responsible for developing guidance and criteria by which NRCS (specifically, local resource conservation districts or the Fresno Regional Office) would use to evaluate the FPMPs in order to verify their consistency with the District's guidance. Therefore, the NRCS' role is limited to reviewing the FPMPs for consistency with the District's guidance, rather than evaluating compliance alternatives absent criteria. Furthermore, all verified FPMPs are to be made available to the District and the public. For these reasons, in addition to the requirement for FPMPs to demonstrate 50% control efficiency, we believe the FPMP administrative requirements are sufficient to ensure enforceable controls.

Comment 3: Earthjustice states that Maricopa's Dust Control Plan requirements (as contained in Maricopa County Rules 310 and 303) provide a more appropriate model for an acceptable FPMP.

Response: Maricopa's Dust Control Plan requirements are specific to construction sites, which have multiple sources of fugitive dust. The FPMP provisions of Rules 8061, 8071 and 8081 only apply to unpaved roads and unpaved vehicle/equipment traffic areas. Therefore, we do not believe it is necessary for the FPMPs to be modeled after the extensive dust control plan requirements adopted in Maricopa County for construction sites.

Comment 4: Earthjustice states that the Plan retains a threshold of 500-3,000 average daily trips to trigger the requirement to pave shoulders in Rule 8061. It is unclear what a threshold with a range means in practice. In order to meet BACM, the Plan should either establish the threshold as 500 average daily trips or justify any higher threshold.

Response: The format of the 500-3,000 average annual daily trip (AADT) threshold for existing paved roads in Rule 8061 does not adversely impact the rule's clarity. In practice, cities and counties responsible for modifying existing paved roads determine the AADT of the road. If the AADT is between 500 and 3,000, Rule 8061 requires a 4-foot shoulder to be established, and if the AADT is above 3,000, Rule 8061 requires a 8-foot

²⁵ Final Staff Report for SJVUAPCD Rule 4692, March 21, 2002.

²⁶ "Technical Support Document for Maricopa County Nonattainment Area PM-10 FIP: Revision to the Phoenix FIP final rule for Unpaved Parking Lots, Unpaved Roads and Vacant Lots," January 19, 1999, page 3.

shoulder to be established. For purposes of meeting BACM, the rule clearly establishes 500 AADT as the baseline threshold above which paved road shoulder requirements apply. Thus, we do not agree with the commenter that the requirement is unclear or insufficient to meet BACM.

Comment 5: Earthjustice states that although the Plan commits to remove the exemption for “implements of husbandry” from vehicle daily trip counts in Rule 8081, the 75 vehicle daily trip threshold should be lowered to account for higher emissions resulting from multiple wheelsets of implements of husbandry. The rule credits trips made by implements of husbandry the same as trips made by passenger vehicles and this may underestimate emissions from implements of husbandry.

Response: The District’s BACM analysis for Rule 8081 evaluates emissions from both passenger vehicles and implements of husbandry with multiple wheelsets, e.g., tractors and implements with 8 wheels, using EPA’s AP-42 emissions factor equation for unpaved roads. The District concludes that a tractor operating between 4 and 9 miles per hour produces 85–88 percent of the emissions produced by a pickup truck traveling 15 miles per hour.²⁷ This analysis supports including implements of husbandry in the rule’s vehicle trip threshold, but not the commenter’s assertion that implements of husbandry generate higher emissions than passenger vehicles and that the 75 vehicle trip threshold should be lowered.

Comment 6: Earthjustice states that the District eliminated a proposed commitment to require that visible emissions not travel beyond the property line on the basis that such disturbances would be “subject to the District’s nuisance rule.” The commenter indicates that many counties in the Valley specifically exempt agriculture from nuisance rules and lack a mechanism to control dust traveling beyond property lines. The commenter concludes that no basis exists for SJVUAPCD’s elimination of its initial commitment to control visible emissions that travel beyond property lines.

Response: EPA’s proposed approval of Regulation VIII as BACM (69 FR 5420–5421) absent a property line limitation for visible emissions was not based on the District’s statement that sources are subject to the District’s nuisance rule. Rather, we believe that a property line

limit provides little to no benefit when a fugitive dust source is located well within the property line. Alternatively, if a source is located immediately adjacent to the property line (e.g., an unpaved road), it may be technically infeasible to comply with a property line limit which would essentially require that no dust be emitted. The applicable standard in Regulation VIII for visible fugitive dust is 20% opacity. Comparing the relative stringency of a property line limit to an opacity standard is technically difficult due to the variety of meteorological and other factors associated with any scenario. However, because the 20% opacity standard is determined at the source’s origin, we generally consider it to be the more stringent standard given the speed with which visible fugitive dust particles disperse into the atmosphere. Therefore, we are relying on the applicability of the 20% opacity standard in lieu of a property line limit for purposes of meeting the BACM requirement.

Comment 7: Earthjustice states that the Plan unjustifiably lacks a commitment to include a 100-foot dust plume limit. SCAQMD Rule 403 includes a 100-foot limit. The commenter notes that SJVUAPCD defended the importance of a plume distance threshold as a measure “of value for construction site managers to judge the need for additional control application”²⁸ and that “a combination of opacity with plume distance limits (e.g., 100 yards) is the best standard to use.”²⁹ Notwithstanding, SJVUAPCD eliminated the proposed commitment to establish a 100-foot dust limit.

Response: The District raises concerns as to the technical feasibility of compliance with a 100-foot limit, given the speed with which a moving vehicle or mobile construction equipment can cover a 100-foot area.³⁰ The inclusion of a 100-foot limit in SCAQMD Rule 403 does not mean it is necessary for Regulation VIII to meet BACM, as long as other applicable limits combined provide adequate stringency. We believe the combined effect of the 20% opacity limit and control measure requirements in Regulation VIII are sufficient to meet BACM.

11. Significant Sources of VOC, Ammonia and SO_x

Comment 1: Earthjustice disagrees that a BACM demonstration is not

needed for VOC, ammonia and SO_x based on the NO_x/PM strategy. They question the defensibility of the NO_x/PM strategy and even if it is the most expeditious strategy for attaining the PM-10 standards, Earthjustice believes the District still retains the obligation to evaluate and include BACM/BACT for significant sources of VOC, ammonia and SO_x as BACM are to be established generally independent of the attainment needs of an area.

In addition, Earthjustice points out that livestock waste is the most significant VOC source under the District’s control, that the South Coast Air Quality Management District is controlling VOCs and ammonia from this source and that the SJV’s Ag CMP program only covers the PM-10 emissions from this source. Pesticides and fertilizers is also a very significant source of VOCs in the SJV, not currently covered by BACM requirements.

Finally, Earthjustice points out that EPA has previously provided comments to the District about the lack of BACM for non-*de minimis* sources of VOCs. In particular, Earthjustice points out that EPA wrote “Categories that must be analyzed for BACM include coatings and related process solvents; other cleaning and surface coatings; waste burning and disposal; food and agriculture (industrial processes); nonmetallic minerals (this BACM analysis should consider any processing activity not addressed by Regulation VIII) and landfill gases.” Earthjustice also points out that EPA commented that the steam enhanced oil well vents category had not been adequately evaluated for BACM as it did not contain provisions found in similar Ventura and South Coast rules. Since EPA previously treated these source categories as needing BACM, Earthjustice believes EPA has no basis on which to conclude that BACM demonstration are not needed at this time.

Response: As discussed in section II.A. above, EPA is concurring with the SJV PM-10 Plan’s NO_x/PM strategy until the CRPAQS results become available. Since, consistent with the NO_x/PM strategy, VOC, SO_x and ammonia reductions are not necessary for attainment, EPA believes a BACM demonstration is not necessary at this time for these precursors. 69 FR 5412, 5423. If the CRPAQS results indicate that reduction of precursors other than NO_x play a significant role in reducing PM-10, the District will be required to revise the 2003 PM-10 Plan to include BACM for those precursors and any additional reductions needed for expeditious attainment.

²⁷ PM-10 Plan at Appendix G, Exhibit C “Supplemental BACM Analysis”, page 27.

²⁸ SJVUAPCD response to April 21, 2003 EPA comments at No. 118.

²⁹ PM-10 Plan at Appendix G, page G-28.

³⁰ PM-10 Plan at Appendix G, Exhibit C “Supplemental BACM Analysis,” page 17.

In an April 23, 2003 letter to the District, EPA commented that certain VOC source categories needed to be evaluated for BACM; however, these preliminary comments were based on an initial review of the District's Draft PM-10 Plan dated March 25, 2003.³¹ In response to EPA's comments, the District included an enforceable commitment to revise the 2003 PM-10 Plan by March 2006 using the CRPAQS results which will provide the necessary technical information to clearly understand the role VOC, SO_x and ammonia play in attaining the PM-10 standards in the SJV. Given this enforceable commitment and the NO_x/PM strategy, EPA believes that requiring BACM/BACT demonstrations for VOC, SO_x and ammonia is not warranted at this time.

12. Mobile Sources—Transportation Control Measures (TCMs)

Comment 1: Earthjustice states that the Plan fails to include a BACM analysis addressing any section 108(f) TCMs. The Plan's only reference to TCMs is its assertion that certain unspecified measures were analyzed by the Regional Transportation Authorities for the Valley's ozone ROP plan, and are incorporated by reference in the plan. However, because the TCMs in the ROP plan were analyzed only for RACM, Earthjustice believes that the TCMs are insufficient to meet BACM requirements. The District errs in responding to a public comment that a BACM analysis needs to be performed when the District states that EPA's Addendum does not require BACM for TCMs.

Response: The 2003 PM-10 Plan incorporates the 2002 Ozone ROP Plan analyses and commitments by the 6 metropolitan planning organizations and 2 transportation planning agencies, representing collectively the 8 counties, numerous transit agencies, and all of the cities in the San Joaquin Valley ozone nonattainment area.³² The commitments and feasibility analyses are included in Appendix E of the 2002 Ozone ROP

Plan, which consists of approximately one thousand pages of TCM analyses and resolutions adopted by the local and regional governments, committing the governments to specific TCMs.

Although the Agency's PM10 BACM guidance does not provide an extensive discussion of TCMs, EPA agrees with the commenter that the PM10 BACM requirement applies to TCMs.³³ CAA section 108(f) lists 16 transportation control measures. In order to ensure that each entity reviewed comprehensively and consistently these measures, as well as subcategories of the measures, the San Joaquin Valley agencies broke the 16 TCMs into a matrix of 126 measures. The agencies then expanded the matrix by adding 14 other possible measures (labeled 17), 9 "existing local government control measures" (18), and 22 measures recommended for consideration by the public (19), for a grand total of 171 measures. Appendix E to the 2002 Ozone ROP Plan (incorporated by reference in the 2003

³³ EPA's General Preamble includes a discussion of RACM provisions for TCMs: "Local circumstances relevant to the reasonableness of any potential control measure involve practical considerations that cannot be made through a national presumption. Various TCM's must be locally coordinated to minimize contradictory results and maximize mutually supportive outcomes. Feasibility of TCM implementation can thus be particularly complicated, and EPA recognizes the importance of assessing candidate TCM's in the context of each particular area's situation. Finally, with respect to TCM's or any other control measures, EPA does not believe that Congress intended the RACM requirement to compel the adoption of measures that are absurd, unenforceable, or impracticable (see 55 FR 38326, September 18, 1990). The EPA, therefore, concludes that it is inappropriate to create a presumption that all of the measures listed in section 108(f) are *per se* reasonably available for all nonattainment areas. All States must, at a minimum, address the section 108(f) measures. The EPA believes that at least some of the measures will be reasonably available for implementation in many nonattainment areas. Where a section 108(f) measure is reasonably available, section 172(c)(1) requires its implementation." 57 FR 13560 (April 16, 1992). The TCM RACM discussion concludes with comments on the legislative history of the 1990 CAA Amendments and EPA's 1979 guidance on RACM as construed by the Court of Appeals for the Ninth Circuit in *Delaney v. EPA*, 898 F. 2d 687 (1990).

In the 8/16/94 supplement to the General Preamble relating to SIPs for Serious PM-10 areas, EPA provided the following brief guidance on BACM for mobile sources: "It does not currently appear that mobile sources, as distinct from the surfaces on which they travel, contribute significantly to the PM-10 air quality problem in a sufficient number of areas to warrant issuing national guidance on best available transportation control measures for PM-10 under section 190 of the Act. However, in those areas where mobile sources do contribute significantly to PM-10 violations, the State must, at a minimum, address the transportation control measures listed in section 108(f) to determine whether such measures are achievable in the area considering energy, environmental and economic impacts and other costs." Addendum at 42013.

PM-10 plan) includes for these measures the commitments adopted by the multitude of jurisdictions, as well as the entities' reasoned justifications for not adopting particular measures. For example, see the "Fresno COG Summary of Commitments—2002 Severe Area Ozone Plan," displaying the commitments for the Fresno COG itself, Fresno County, the 15 cities in the County, and the 3 transit agencies relating to the matrix of candidate control measures.

Appendix E includes resolutions adopted by each entity. For each of the hundreds of measures where implementation has already occurred or is programmed to occur, the resolutions describe the measure fully, identify the responsible agency and implementation authority, set out the implementation schedule, present the levels of personnel and funding for implementation, specify the enforcement program (if any is required), and describe the monitoring program.

EPA believes that the explanations for not including specific measures are equally applicable for BACM as for RACM, because the justifications reflect each entities' careful considerations and conclusions that particular measures simply are infeasible for the area because of technical, practical, or economic reasons. See, for example, City of Ridgecrest table "Control Measures Which are Not Feasible for Implementation"; City of Coalinga Resolution No. 2892; City of Orange Cove, Resolution No. 2002-12, Exhibit A—Local Government Control Measures That will not be Implemented; County of Fresno Resolution #02-128; Kern Council of Governments table "Example Local Government Measures." The reasoned justifications are based on factors that make a measure either inapplicable or impractical to the area, such as density levels, urbanized area configuration, centers of employment, traffic volume and flow, congestion levels, measure redundancy, economic issues relating to implementing agencies or public participation levels, potential for measures to be counter-productive from an emissions perspective (*e.g.*, creation of new one-way streets), absence of traffic signals, no means of reasonable enforcement, etc. The commenter has not shown that any of the analyses and commitments would be different for BACM, and EPA believes that they would not in fact differ.

EPA therefore believes that both the analyses performed by the San Joaquin Valley transportation and governmental entities and the commitments by the

³¹ Letter from Jack P. Broadbent to David L. Crow, RE: Preliminary Review of the Draft 2003 PM-10 Plan, April 21, 2003.

³² "The resolutions adopted by the respective entities to commit to implement local government control measures are included in the Regional Transportation Planning Agency Commitments for Implementation Document, April 2002. The document is available for public review at the central San Joaquin Valley Unified APCD office located in Fresno. In accordance with the Air District planning process for the PM-10 Plan, these commitments are incorporated by reference into the PM-10 Plan. The ozone measures will provide emission reductions for precursor gases and help to address the secondary particulate problem." PM-10 Plan, Appendix I, page 4.

entities reflect a conscientious effort to assess the viability of achieving reductions from implementation of each of the section 108(f) measures and other possible candidate measures, and to adopt and expeditiously implement all measures that were determined to be available at this time.

EPA believes that these assessments were conducted in a thorough process with full public involvement. The documents were subject to public review and comment in 5 public workshops before adoption by the local governments.³⁴ Before adoption, the measures and assessments underwent an extensive process, which is summarized in Appendix I of the 2003 PM-10 Plan in a document labeled "Overview of Regional Transportation Planning Agency Process to Identify and Implement Best Available Control Measures in Support of the PM-10 Attainment Plan for the San Joaquin Valley" (April 2003 RTPA BACM Submittal). This document sets out an 8-step process for biweekly/monthly meetings to review candidate measures, obtain input and feedback, share information, and document in a consistent fashion conclusions on economic and technological feasibility and program selection and implementation. This 8-step process was followed as the plans were being prepared, and the agencies are continuing the process to reassess the viability of additional controls as circumstances change in the future. Again, the public is invited to participate in the process and the results of the process are readily available to the public on a continuing basis.

Finally, it should also be noted that the San Joaquin Valley regional transportation planning agencies reviewed the adopted measures and the candidate measure analyses in the 2002 Ozone ROP Plan and concluded that they constitute BACM for TCMs and for other types of measures under their jurisdiction with respect to control of secondary particulate matter, such as NO_x. The agencies further agreed that they needed also to address additional BACM controls for direct particulate matter to supplement PM BACM. "A key requirement for the PM-10 Attainment Plan is the implementation of Best Available Control Measures (BACM). Since the ozone measures described in the previous section will be used to address the secondary particulate problem, the control measures being pursued for the PM-10

Attainment Plan focus on direct particulate." See "Overview of Regional Transportation Planning Agency Process to Identify and Implement Best Available Control Measures in Support of the PM-10 Attainment Plan for the San Joaquin Valley" (April 2003 RTPA BACM Submittal), page 5.

These analyses and the resulting measures are included as elements of the reentrained dust and street cleaning provisions of the plan (Regulation VIII), rather than as TCMs. EPA agrees that this is appropriate, since the only significant source of primary particulate matter associated with motor vehicles is reentrained dust from paved and unpaved roads, and the specific control measures to reduce those emissions (paving unpaved roads, stabilizing access points onto paved roads, curbing, sweeping, erosion clean-up, etc.) are not categorized as TCMs. See the definition of TCMs at 40 CFR 93.101:

"*Transportation control measure (TCM)* is any measure that is specifically identified and committed to in the applicable implementation plan that is either one of the types listed in section 108 of the CAA, or any other measure for the purpose of reducing emissions or concentrations of air pollutants from transportation sources by reducing vehicle use or changing traffic flow or congestion conditions." Measures to reduce primary particulate matter emissions through reductions in "vehicle use or changing traffic flow or congestion conditions" are already addressed in Appendix E to the 2003 Ozone ROP Plan, since these categories of measures relate to the ozone precursors NO_x and VOC.

Comment 2: Earthjustice states that the transportation agencies may have proposed a measure to limit vehicle idling for the ozone ROP plan, but the plan appears to be voluntary and clearly fails to meet BACM. The Plan must evaluate implementation of enforceable idling control measures covering all vehicles and equipment throughout the Valley.

Response: Many of the SJV jurisdictions, as part of their TCM assessment, considered and rejected mandatory idling controls at the local level as infeasible, because of enforceability, safety, and public health issues. Moreover, idling controls were also being developed on a Statewide basis in ways that would surmount the feasibility concerns associated with a local program. Before the PM10 Plan was prepared, CARB had already adopted the State's Diesel Risk Reduction Program (October 2000), and as part of that plan had scheduled expeditious adoption and

implementation of Statewide idling control programs for diesel vehicles. Also before the PM10 Plan was prepared, the State had already enacted the most stringent Statewide idling control measure in the country, a restriction on idling in the vicinity of schools. CARB has now scheduled a public hearing on July 22-23, 2004, to consider adoption of Statewide idling control regulations for heavy-duty diesel vehicles.³⁵

One of the San Joaquin Valley agencies' primary justifications for rejecting adoption and implementation of local idling restrictions was their determination that local police enforcement programs needed for non-technology based restrictions on idling were simply infeasible. For the same reason, the proposed State program emphasizes required installation of tamper resistant, automatic idling control equipment, as opposed to an idling prohibition enforceable against vehicle operators. Like the commenter, CARB concluded that voluntary programs would be ineffective, based on evaluations of the State's limited success using educational programs. Unlike the commenter, CARB determined that idling restrictions on gasoline-fueled vehicles and engines should not be pursued because the hot and cold start emissions associated with gasoline engines could cancel out or even exceed the benefits from reduced idling. San Joaquin Valley entities reached the same conclusion.³⁶ Finally,

³⁵ The CARB public notice of the proposed regulatory program provides the following summary of the intended regulation: "The ARB staff is proposing a regulation to reduce idling emissions from new 2007 and later model year on-road heavy-duty diesel vehicles (HDDV) with gross vehicle weight rating greater than 14,000 lbs. The proposal requires HDDVs to be equipped with an idle shutdown system that will shut down the engine after 5 minutes of continuous operation at idle. The proposal allows the use of alternative idle reduction devices/strategies in order to provide heating and air conditioning for cab comfort, engine oil heating for easy engine start-up in cold ambient conditions, and electric power to charge batteries and for on-board accessories. Such devices include, but are not limited to, an automatic stop-start system, on-board auxiliary devices such as fuel-fired heaters and auxiliary power units, and power inverter/chargers for use with batteries and grid supplied electricity. The use of these devices, in lieu of operating the heavy-duty engine at idle, will result in significant NO_x reductions. Reductions in ROG, carbon monoxide and carbon dioxide are also expected, but to a lesser extent depending on the type of alternative idle reduction device/strategy used." More details on the proposed regulation, including the rule language, appear at: <http://www.arb.ca.gov/regact/hdvidle/hdvidle.htm>.

³⁶ See, for example, the reasoned justification adopted by the City of Clovis in Appendix E of the 2003 Ozone ROP Plan for not adopting an idling restriction: "This measure is infeasible for the City of Clovis Police Department to implement at this

³⁴ The San Joaquin Valley regional transportation planning agencies developed a Web site to provide the public with information on the BACM process.

CARB decided to exclude from idling restrictions all commercial and school buses to avoid jeopardizing public health, in view of the need for continuous passenger cooling and heating.

EPA agrees with the State's reasoning and conclusions regarding the best approach and appropriate targets for idling restrictions. Thus, EPA supports both the San Joaquin Valley agencies' reasoned justifications for not pursuing local idling controls and CARB's rationale for expeditiously developing, adopting, and implementing the proposed Statewide heavy-duty diesel vehicle idling control program.

13. Mobile Sources—South Coast Fleet and Low Sulfur Diesel Rules

Comment 1: Earthjustice claims that while the Plan includes a generalized commitment to control emissions from publicly-owned fleets, Regulation IX is merely in the "initial stages of development." The Plan fails to incorporate or even evaluate the SCAQMD's fleet rules.

Response: Following adoption of the SCAQMD's fleet rules, the Engine Manufacturers Association (EMA), joined by other parties, filed suit against the SCAQMD arguing, among other things, that such rules were preempted under section 209(a) of the Clean Air Act. Although the SCAQMD prevailed before the U.S. District Court and U.S. Court of Appeals for the Ninth Circuit, EMA appealed to the U.S. Supreme Court. *EMA v. SCAQMD*, Supreme Court Case Number 02-1343. On April 28, 2004, the U.S. Supreme Court ruled that at least certain aspects of the SCAQMD fleet rules appear to be preempted by CAA section 209, and remanded the case. Based on this decision and pending final resolution of other issues of authority not addressed by the decision, EPA does not consider local air district adoption of rules similar to the SCAQMD's fleet rules to be authorized or required.

Comment 2: Earthjustice comments that the Plan should incorporate a rule akin to SCAQMD's rule 431.2 (low sulfur diesel). Although EPA will require all on-road vehicles to use low sulfur fuel by mid-2006 and California has proposed to adopt rules applying to off-road vehicles in 2006, the District

time because traffic stall or congestion is almost exclusively limited to short term signal light cycling. It would be impracticable and unadvisable to turn off engines during this time. Furthermore, based on the type of short-term traffic delays noted above, the City does not feel this measure would * * * reduce emissions. Rather this measure would increase emissions due to the stop and start of engines, as well as be an issue to public health and safety."

could achieve significant reductions immediately with the introduction of low sulfur diesel, which would enable new control technologies.

Response: SCAQMD's rule prohibits producing or supplying greater than 15 ppm sulfur fuel on and after January 1, 2005, but that date would be extended to match a later compliance date adopted by CARB, if no later than June 1, 2006. Rule 431.2(c)(4). CARB has workshopped amendments to the State's diesel fuel regulations and issued the 15-day notice for the rule amendments, based on the CARB Board's authorization to proceed with the rule adoption, which is currently scheduled for July 24, 2004. On that date, CARB expects to amend the State's diesel regulations not only to prohibit sale/supply of greater than 15 ppm sulfur fuel on and after June 1, 2006, for mobile sources and stationary sources, but also to regulate fuel lubricity levels. Moreover, EPA's national 15 ppm sulfur rule goes into effect June 1, 2006 for motor vehicles, and EPA has indicated its intention to finalize in the near future national low sulfur fuel restrictions for nonroad vehicles and engines as part of the Tier 4 nonroad standards, which were proposed on May 23, 2003 (68 FR 28328). Finally, it is not clear that local agencies (as opposed to the State) have authority to adopt and enforce provisions relating to motor vehicle fuel specifications. For these reasons, EPA does not agree that adoption by SJVUAPCD of a rule comparable to SCAQMD's rule 431.2 is appropriate or required as BACM at this time.

D. Attainment Demonstration

1. Attainment Deadline

Comment 1: Earthjustice states that, under section 188(c)(2) and (e), serious PM-10 nonattainment areas such as the SJV may be granted at most one extension of their December 31, 2001 attainment deadlines of no more than 5 years, *i.e.*, to no later than December 31, 2006. Instead, in the proposed rule, EPA states that "because the SJV missed the 2001 attainment date otherwise applicable, we believe that the attainment date is governed by other provisions of the CAA." 69 FR at 5424. This is not a reasonable basis for failing to apply section 188(e) given the fact that EPA approved deadline extensions for other serious nonattainment areas, such as Clark County, Coachella Valley, Maricopa County, the South Coast and Phoenix, after they missed the 2001 date and still applied section 188(e).

Earthjustice further states that EPA cites CAA section 179(d)(3) to support

an extension of a PM-10 nonattainment deadline for the first time beyond 2006 [sic]. Because the subpart 1 provision EPA cites applies to nonattainment areas in general as opposed to the PM-10-specific subpart 4, EPA is not permitted to extend the attainment deadline for up to 10 years. If EPA's interpretation were correct, EPA would be permitted to endlessly extend attainment deadlines for up to 10 year periods after each finding of nonattainment. Clearly Congress intended for all serious PM-10 nonattainment areas to attain by December 31, 2006 at the very latest. If Congress "has directly spoken to the precise question at issue" and "the intent of Congress is clear, that is the end of the matter." *Chevron* at 842-843. It is a general principle of statutory construction that where a statute addresses an issue specifically in one section and more generally in another, the more specific provision applies.

Response: EPA's conclusion regarding the attainment deadline applicable to the SJV appropriately reconciles the provisions of sections 188(c)(2) and (e) and 189(d). EPA agrees that, in the first instance, *i.e.*, upon classification or reclassification to serious, the attainment deadline for such an area can be no later than December 31, 2001 unless extended in accordance with the conditions in section 188(e) to no later than December 31, 2006. When section 188(c)(2) and (e) is read in conjunction with section 189(d), however, it is clear that, after EPA has made a finding of failure to attain for a serious area, the provisions of section 189(d) apply to the subsequently required serious area plan.³⁷ This is apparent from the plain language of section 189(d): "In the case of a Serious PM-10 nonattainment area in which the PM-10 standard is not attained by the applicable attainment date, the State * * * shall * * * submit within 12 months after the applicable attainment date, plan revisions which provide for attainment of the PM-10 air quality standard * * *." Emphasis added. Section 189(d) clearly governs a situation in which a serious area has failed to meet its original attainment date of 2001 under section 188(c)(2) (or up to 2006 under section 188(e)) and therefore must submit a new plan that demonstrates attainment some date that is beyond the earlier established deadline. Thus, the attainment plan to be submitted within 12 months of the

³⁷ In the case of the serious nonattainment areas other than the SJV cited by the commenters, EPA had not made findings of failure to attain the serious area deadline. In such cases, section 188(c)(2) and (e) continues to govern the applicable attainment deadline.

applicable attainment date which has been missed cannot be subject to the same attainment deadline as the previous plan.

Because, however, section 189(d) merely requires the new plan to "provide for attainment," EPA looked elsewhere in the statute to determine the outer bounds of that deadline. The only other provision of the statute that addresses planning requirements applicable to a PM-10 nonattainment area for which EPA has made a finding of nonattainment is section 179(d). Thus, the Agency did not ignore subpart 4 in favor of subpart 1, but rather applied subpart 4 to its maximum extent before turning to subpart 1 to determine the applicable attainment deadline for the SJV under the prevailing circumstances.

Under section 179(d)(3), the attainment deadline applicable to an area that misses the serious area attainment date is as soon as practicable, but no later than 5 years from the publication date of the nonattainment finding. EPA may, however, extend the attainment deadline to the extent it deems appropriate for a period no greater than 10 years from the publication date, "considering the severity of nonattainment and the availability and feasibility of pollution control measures." Because section 189(d), standing alone, does not establish a specific outer attainment deadline for areas that fail to meet their original or (one time) extended deadline, EPA adopted an interpretation reasonably accommodated to the purpose of the statutory provisions. *Chevron U.S.A., Inc. v. Natural Resources Defense Council*, 467 U.S. at 842-44. In contrast, the commenters' interpretation would write out of the statute entirely the language in section 189(d) that addresses attainment.

Finally commenters claim that "if EPA's interpretation were correct, EPA would be permitted to endlessly extend attainment deadlines for up to 10 year periods after each finding of nonattainment." EPA has the responsibility under CAA sections 179(d) and 188(b)(2) of determining within 6 months of the applicable attainment date whether an area has attained the standards. Once EPA approves a specific deadline for the SJV under section 179(d)(3), it becomes the applicable deadline for the purpose of such a determination. If the SJV fails to meet its 179(d)(3) deadline, the provisions of section 189(d) will once again apply. We believe that result is what Congress intended in these circumstances.

2. Attainment Demonstration Overestimates Emission Reductions

Comment 1: Earthjustice believes that the emissions reductions from certain control measures are drastically overstated. In particular, they point out that many of the proposed practices listed in the Ag CMP are commonly acknowledged to be in widespread practice already, but whose reductions have not been included in the emission inventory. Earthjustice argues that if this is the case, then the plan's inventory is overstated and future reductions from the Ag CMP program to meet attainment and the 5% requirement will not be achieved because they are already in the baseline. In addition, Earthjustice points out that many of the emission factors have been lowered and the inventory may not reflect existing practices, thus, overstating future reduction estimates. Either way, Earthjustice believes that since many growers are already implementing the CMP, the current inventory and reductions for the attainment demonstration are not accurately portrayed.

Response: The inventory and emissions reductions estimates found in the 2003 PM-10 Plan are based on the best available data at the time of Plan development. The District is currently developing the Ag CMP program's rule and a draft list of CMP is available for review. As stated previously, that rule is not the subject of this rulemaking and we will thoroughly evaluate the rule once it has been adopted by the District and submitted to us. We note, however, that while some of the CMP on the draft list may already be implemented by some farmers, this may only mean that these farmers are already implementing BACM. We also note that the latest draft of Rule 4550 contains a backstop provision to ensure that sufficient emission reductions are achieved by the agricultural sector.

3. Attainment as Expediently as Practicable

Comment 1: CRPE comments that because the five percent requirement has not been adequately addressed and because the Ag CMP program does not require BACM, the Plan does not demonstrate attainment will be achieved as expeditiously as practicable.

Response: Since we believe that the section 189(d) five percent requirement has been met and that the BACM requirement for agricultural sources has also been met, we continue to believe attainment is based on all reasonably achievable emissions reductions and is

as expeditious as practicable. See, respectively, section II. E. and C.2.

E. Five Percent Demonstration

Comment 1: Earthjustice and CRPE comment that the Plan fails to demonstrate "* * * an annual reduction of PM-10 or PM-10 precursors of not less than five percent * * *" (emphasis added) as required by CAA section 189(d). The commenters assert that the statute is clear in requiring PM-10 or PM-10 precursor emissions to be reduced by at least 5% in each year. The commenters also point to legislative history which they assert precludes any interpretation of the statute that would allow less than 5% reduction of PM-10 or PM-10 precursors in each and every year until attainment. Finally, the commenters note that the SJV is the first area subject to the requirements of section 189(d), making this an important question of first impression.

Response: EPA agrees that this is a question of first impression and that the application of section 189(d) to the SJV is an important aspect of this action. Because EPA has not previously applied the provision, this action represents the Agency's first experience with interpreting the provision in order to determine how best to implement the statute in light of the facts of an actual plan. As explained in the proposed approval of the Plan (69 FR 5412, 5430), EPA believes that the express statutory language allows the District to develop a plan that targets reductions of either direct PM-10 or PM-10 precursors in each year, and to alternate or vary the approach from year to year. This is a plain reading of the statute that gives effect to the word "or." Even if the statutory provision were ambiguous on this point, EPA believes that its interpretation is reasonable, given that this reading of the statute provides some flexibility to the state to determine whether it is more effective or more practicable to obtain reductions of direct PM-10 or PM-10 precursors from year to year, as the facts and circumstances dictate, so long as the state is making progress towards attainment of the NAAQS as expeditiously as practicable.

As further explained in the proposed rule, EPA believes that the express statutory language of section 189(d) authorizes the Agency to approve a plan that achieves 5% reductions of either direct PM-10 emissions, or 5% of the emissions of one or more precursors that EPA determines to be the precursor emissions appropriate for the District to target in order to attain the NAAQS as expeditiously as practicable. EPA believes that this is a literal reading of

the provision because the term "precursor" must be read in light of what the District establishes and EPA agrees are the chemicals that are the PM-10 precursors for regulatory purposes in the SJV. Even if the statute were ambiguous on this point, EPA believes that it is appropriate to interpret section 189(d) to allow for the calculation of the 5% reduction of precursors based upon the overall strategy of the plan. This approach is confirmed by the terms of section 189(e) in which the statute permits EPA to determine whether or not certain precursors from stationary sources significantly contribute to violations of the NAAQS, in essence distinguishing between chemicals that may be precursors from an academic perspective and chemicals that should be precursors from the regulatory perspective. Were EPA to require the District to obtain 5% emission reductions of chemicals that are not the appropriate precursor or precursors to control, that could result in reductions that would not expedite attainment.

In this case, the District has designed a plan that targets reductions of PM-10 and NO_x, because they believe that this strategy will be the most effective and efficient way to reach attainment. In order to comply with section 189(d), the District has therefor structured its plan to ensure that it will achieve reductions of either PM-10 or NO_x sufficient to meet the 5% requirement. As explained elsewhere in more detail, EPA has evaluated the 2003 Plan as a whole and concurs that, based upon currently available information, the PM-10 and NO_x reduction strategy will be the most effective approach to attain the PM-10 NAAQS as expeditiously as practicable. Accordingly, EPA believes that the reference in section 189(d) to 5% emission reductions of "PM-10 precursors" should be interpreted to mean 5% of the precursors that have been determined to be effective for achieving the NAAQS, *i.e.*, 5% of the type of emissions that are PM-10 precursors for regulatory purposes.

For the 2003 Plan, for example, the District has argued and EPA agrees that it would not be an effective strategy for the District to obtain 5% reductions of ammonia because this degree of ammonia reduction would not appreciably move the SJV towards attainment given that most portions of the area appear to be NO_x-limited so that reductions of ammonia would not be as effective. Similarly, the District has argued and EPA agrees that reductions of VOC would not be as useful as reductions of NO_x to reduce PM formation, so that achieving

reductions of 5% of VOC emissions would not be as effective. With respect to SO_x, the relatively small amount of SO_x emissions in the District compels the conclusion that achieving annual reductions of 5% of SO_x emissions would not significantly affect the ambient PM-10 levels in the SJV.

In short, given the PM-10 and NO_x strategy adopted by the District and the supporting technical analysis and modeling they have provided, NO_x is the regulatory "PM-10 precursor" in the SJV for purposes of section 189(d). Should this determination change as a result of further analysis in the CRAPQS study, the content of the section 189(d) requirement would also change.

In light of these facts, EPA has concluded that it is appropriate to read the provisions of section 189(d) to permit the District to calculate the 5% reduction of PM-10 precursors based upon the overall strategy of the Plan, *i.e.*, to require a 5% reduction of NO_x in those years that the District is not obtaining a 5% reduction of PM-10. EPA emphasizes that this approach is appropriate because the strategy and the technical support for the strategy indicate that NO_x reductions are the most effective control strategy in the SJV, and that this conclusion might not be appropriate in other locations with different mixtures of emissions, sources, atmospheric conditions, and other plan-specific considerations.

These commenters also take issue with the way in which EPA has read the statute to allow the District to take credit for early reductions of PM-10 or PM-10 precursors. The commenters assert that because the statutory language requires "annual reductions in PM-10 or PM-10 precursor emissions within the area of not less than 5 percent of the amount of such emissions as reported in the most recent inventory prepared for such area," the District must obtain "at least" 5% reduction in each year of the Plan.

As explained in the proposed rule, EPA does not believe that the explicit statutory language compels this approach and that such an interpretation of section 189(d) might not be the best way to encourage early reductions to achieve the NAAQS. Although the statute does use the term "annual reductions," the statutory language does not in fact use the phraseology advocated by the commenters. The provision does not explicitly require reductions of 5% "in each year," "in each individual year," "in each and every year," or in any such terms. The provision instead merely requires that the District's plan must provide for "annual reductions" of not

less than 5% and does not indicate that the plan could not allow such reductions to occur earlier than would otherwise be required, yet on average or when looked at as a whole, to have met the requirement of an annual 5% reduction. EPA notes that Congress did explicitly provide for required emissions reductions in each year in section 187(g), which is the analogous provision applicable to carbon monoxide (CO) nonattainment areas that fail to attain by the applicable attainment date. In that provision, the statute explicitly requires reductions of "5 percent per year in each year." Because this was not stipulated in section 189(d), we conclude that we are permitted to take a different approach.

EPA believes that a plain reading of section 189(d) does not preclude an approach that permits earlier reductions to count towards the 5% calculation for subsequent years. To the extent that the provision is ambiguous on this point, however, EPA believes that its interpretation is preferable because encouraging reductions earlier is more consistent with obtaining emissions reductions and achieving the NAAQS more quickly. EPA acknowledges that the obligation to achieve the NAAQS as expeditiously as practicable is a separate and simultaneous obligation, yet also recognizes that legitimate concerns such as the cost and technical feasibility of control measures might result in decisions to delay or limit the implementation even of BACM level controls. By encouraging the District's efforts to obtain reductions sooner through, *e.g.*, the earliest possible implementation date notwithstanding resulting higher costs, EPA believes that an interpretation of section 189(d) to allow early reductions to count towards the 5% calculation for later years is consistent with the larger goals of the CAA.

EPA would not, however, agree that section 189(d) would allow "backloading" of emissions reductions to meet the 5% calculation requirement, *i.e.*, if reductions that occur in later years were counted towards the 5% requirement for earlier years. While the statutory language of section 189(d) might also be susceptible to an interpretation allowing backloading of reductions, EPA believes that such an interpretation would be inconsistent with the goal of the section, which is to move an area to attainment as expeditiously as practicable. In addition, other provisions indicate how Congress addressed situations in which reduction requirement backloading might be appropriate. In section 182(c)(2)(B), Congress laid out a specific

approach for backloading of otherwise required VOC reductions. By contrast, were EPA to interpret section 189(d) rigidly to require at least 5% reductions in each year as the commenters assert is absolutely required, a state might feel compelled to schedule the implementation of controls in order to ensure that it could meet the technical requirement of at least 5% reductions in each and every year in order to avoid the legal consequences of failure to meet that requirement. This might result in decisions that were not optimal in terms of obtaining emissions reductions from as many sources as possible, as early as possible, thereby exalting the 5% requirement over the larger goals of the CAA.

In support of their position that section 189(d) does strictly require 5% reductions in each and every year, the commenters quote a particular selection from the legislative history for the CAA in which the House Committee on Energy and Commerce summarized the provisions of H.R. 3030, and described section 189(d) as requiring a state "to reduce the total tonnage of emissions of PM-10 in the area by at least 5 percent per year in each year after submission of the plan revisions until attainment of the standard." See 1990 CAA Leg. Hist. 3021, 3292. Setting aside a debate about the relative weight appropriate to a particular piece of legislative history, EPA also believes that the quoted language itself does not necessarily contradict the Agency's interpretation of the provision with respect to giving credit for earlier reductions. The House Report summary merely states that the provision requires a new plan that will reduce emissions by at least 5% "per year in each year," but does not explicitly state that the plan could not provide for earlier reductions that could count toward the calculation for subsequent years. For the reasons stated above, EPA has concluded that encouragement of earlier reductions is important and strict adherence to an interpretation that might dissuade states from attaining reductions sooner is not a reasonable approach to interpreting the 5% requirement.

Comment 2: Earthjustice and CRPE comment that neither of the District's two options for demonstrating a 5% annual reduction satisfies CAA section 189(d).

Response: EPA agrees that one of the methods proposed by the District in the 2003 Plan is unacceptable because it would allow improper calculation of the 5% reduction by adding reductions of PM-10 and reductions of NO_x to reach the target percentage. Unless the District determined the necessary amount of

annual reductions by adding the total tonnage of PM-10 and NO_x into one sum and then calculating 5% of that total sum, this method would be mathematically incorrect. To say that 2% of 100 units of PM-10 and 3% of 200 units of NO_x equals 5% of one or the other or both is simply improper; 8 units would not be 5% of 100 units, 200 units, or 300 units. EPA contends that Congress cannot have intended application of the statute in a way that is inconsistent with basic mathematical principles, so this approach is not acceptable.³⁸

In EPA's proposed rule (69 FR 5412, 5430), the Agency recognized that the "Alternative Method" (see 2003 PM-10 Plan, Table 7-2) for calculating the five percent requirement "[a]chieves the 5% annual reduction of either PM-10 or PM-10 precursors [and] [c]arries forward any reductions beyond 5% towards calculating the 5% requirement for a future year." As explained in the response above, EPA believes that the explicit language of the statute permits the District to target reductions of either PM-10 or PM-10 precursors in each year, and to vary the approach from year to year, depending upon whether it is more effective or more practicable to obtain reductions of direct PM-10 or PM-10 precursors from year to year, as the facts and circumstances dictate. In this approach, the District will obtain 5% reductions of either the total amount of NO_x or the total amount of PM-10 in each year, or earlier. As described in more detail above, EPA believes that allowing the District to carry forward excess reductions in emissions to succeeding years is helpful because it will encourage earlier reductions and will provide practical flexibility that a strict numerical approach would not.

Comment 3: CRPE comments that the alternative interpretation ("Alternative Method") allows "extra" emissions achieved through BACM rules in 2003, 2004 and 2005 to be applied to later years in order to meet CAA section 189(d). CRPE believes that section

³⁸ If the District had wanted to achieve 5% from a combination of PM-10 and NO_x, they would have had to achieve 5% of each (i.e., 5 tons of PM-10 and 10 tons of NO_x) or it might also have been appropriate to achieve 5% of the total emissions of PM-10 and NO_x (i.e., 15 tons total from PM-10 and NO_x). This approach of calculating 5% from a single summed total of PM-10 and NO_x may be an appropriate interpretation given the insertion of the word "or" into the statute, because the approach would at least comport with basic mathematical principles. It is unnecessary to resolve this latter point for purposes of today's action, however, because the 2003 Plan did include another option for demonstrating the 5% calculation that EPA believes is acceptable and consistent with the statute.

189(d) requires the 5% reductions to be in addition to reductions achieved from BACM requirements since BACM requirements were required to be implemented by 1997. CAA section 189(b)(1)(B); 64 FR 51489 (September 23, 1999). In addition, CRPE comments that EPA's rationale that allowing reductions "to be carried forward in order to encourage emissions reductions as quickly as possible" should not apply to BACM requirements since they were due seven years ago.

Response: The commenter is correct that the 2003 Plan uses reductions achieved through implementation of BACM level controls in order to meet the 5% requirement of section 189(d). The commenter asserts that this is inappropriate, given that the reductions required for BACM level of controls should already have occurred and that the 5% reduction requirement of section 189(d) should be in addition to those previously required reductions.

EPA disagrees that this is the proper way to interpret section 189(d) in this situation. Congress did not explicitly word section 189(d) to provide that the 5% reduction may not include reductions that would otherwise occur as a result of the implementation of BACM level controls. Instead, Congress simply required that a state that misses the serious area attainment date must submit a plan that provides for progress towards attainment on a regular basis, and did not qualify whether these reductions should occur through the imposition of RACM, BACM, or indeed any specific level of control. EPA notes that in another provision, section 182(b)(1)(B), Congress did explicitly direct EPA to exclude certain emissions reductions for purposes of subsequent calculations. Similarly, in section 182(c)(2)(B), Congress explicitly directed EPA to include certain emissions reductions in subsequent calculations. No such explicit directive appears in section 189(d).

EPA believes that because the provision does not explicitly require the 5% reductions to be over and above the reductions that could occur through implementation of BACM level controls, it is more appropriate to interpret section 189(d) literally as a requirement to implement controls that meet the percentage reduction requirement. Nevertheless, the District is still under an obligation to require BACM level controls to be implemented on the appropriate sources as soon as possible. In addition to the 5% requirement, the CAA imposes a continuing obligation to attain the NAAQS as expeditiously as practicable. Even if the statute is ambiguous with respect to whether the

5% reduction requirement is in addition to other emission reductions, EPA believes that its approach is the most reasonable. EPA notes that the analogous provision for CO nonattainment areas, section 187(g), explicitly provides that a state's plan must use certain measures that "in combination with other elements of the revised plan, shall be adequate to reduce the total tonnage by at least 5% per year." EPA believes that this language demonstrates that Congress contemplated that a state would use a mixture of measures, including previously required or available measures, to obtain the reductions that would meet the 5% reduction requirement. Although section 189(d) does not include this identical "in combination with" language, EPA believes that the existence of this language in the analogous provision suggests that its reading of the statute to allow this approach for PM-10 is a reasonable one.

As a practical matter, EPA recognizes that imposition of BACM level controls takes time and resources and that a state must often sequence its efforts in order

to achieve the necessary level of controls.³⁹ For example, with respect to BACM level controls on direct PM-10 emissions from agricultural sources, EPA agrees that the District will need a reasonable period of time in order to implement the Ag CMP program. Were EPA to adopt the commenter's approach, EPA would have to require the District to meet a 5% reduction requirement above and beyond the reductions from BACM controls on its sources, and to obtain those reductions well before the District's rules could reasonably achieve those reductions. While EPA shares the commenter's serious concerns that the SJV should attain the NAAQS as expeditiously as practicable, EPA believes that it would be unreasonable to require the District to obtain reductions in advance of the time that it can practicably do so through BACM level controls. EPA believes that the proper focus is on the requirements that the District implement BACM and that it do so in the manner and on the schedule that will provide for the most expeditious attainment of the NAAQS. In this context, the 5% requirement of section

189(d) does provide an impetus for regular progress towards attainment, as it should. The commenter's suggestion that the 5% be above and beyond and before what is achievable through BACM level controls is not a feasible approach, and therefore EPA believes that it is not an appropriate way to interpret section 189(d) in the circumstances at hand.

Comment 4: Earthjustice comments that the 2003 Plan includes incentive measures towards the calculation of the 5% reductions required by section 189(d). Because the measures are not regulatory and enforceable, and because the Plan indicates that funding for the measures has not been provided past 2005, the commenter asserts that the reductions in the years 2005 to 2010 are not creditable toward the 5% demonstration.

Response: The comment appears to refer to two measures in the SJV plan: Incentive Programs (IP) and Indirect Source Mitigation Program (ISMP). The District's commitment to specific emissions reductions from these measures is shown below.

SAN JOAQUIN PM-10 SIP INCENTIVE PROGRAMS AND INDIRECT SOURCE MITIGATION PROGRAM
[Emission Reductions of NO_x in Tons per Day (Annual/Seasonal)]

Control measure	2005	2008	2010
Incentive Programs	6.3/4.8	6.8/5.2	6.5/5.0
Indirect Source Mitigation Program	0.7/0.5	2.7/2.0	4.1/3.1

Source: PM-10 Plan, Tables 4-17 and 4-18.

The IP, which has been in actual operation since 1992, consists of various elements, including the Heavy-Duty Engine Emission Reduction Incentive Program, the Reduce Motor Vehicle Emissions (REMOVE) program for heavy-duty engines, a recently concluded program for light- and medium-duty vehicles, and a Green Yard Machine Program (electric lawnmowers). The IP is a long-established program which is continuing, using various State-Federal funding sources, and the District has indicated that it will pursue new funding sources to achieve additional reductions claimed in years after 2005.⁴⁰

The commenter quotes the 2003 Plan's discussion of the relationship between current funding and the

emissions reductions associated with the measure:

Emission reductions projected to be achieved by completed projects and with currently committed funding amount to 6.1 tons per day of NO_x by 2005. The Air District expects additional funding will be obtained to allow continued emission reductions in later years.

As shown above, the District has committed to achieve an additional 0.2 tpd of NO_x reductions by 2010 beyond the level achieved in 2005 from already completed projects and presently committed funding.

In the SJV, there is a long track record of District and State funding support for these incentive programs. Moreover, the quantification and documentation of obtaining of emissions reductions from

these incentive programs are well established and fully adequate to validate the reductions. See, for example, the Carl Moyer Memorial Air Quality Standards Attainment Program Guidelines, electronically available at <http://www.arb.ca.gov/msprog/moyer/moyer.htm>.

The Moyer program procedures have served as models for the design of national, state, and local credit validation systems for mobile source subsidy programs, and California continuously refines these guidelines to reflect accurately the reductions associated with the program subsidies. The procedures address emission reduction quantification issues associated with both baseline emissions and the amount of reductions

³⁹ Within the statutory scheme, Congress implicitly recognized that states could not immediately implement BACM level controls. In section 189(b)(1)(B), the statute provides that a state plan must implement BACM within four years after classification or reclassification to serious PM-10 nonattainment. In this instance, of course, BACM level controls should have been implemented by

1997. The more general point, however, is that in developing a plan, EPA recognizes that it may not be possible for all controls to be implemented instantaneously.

⁴⁰ The Plan indicates that current funding sources include California's Carl Moyer Program, State transportation funds, State peaker power plan offset

funds, Federal Congestion Mitigation and Air Quality Improvement Program (CMAQ), and District Department of Motor Vehicle (DMV) Surcharge Fees. 2003 PM-10 Plan, page 4-62. It should be noted that revenue from the \$4 DMV registration surcharge fee is a permanent source of IP funding under State law.

achievable from the various repower, retrofit, and replacement technologies and alternative fuel options, as well as issues associated with project life, enforceable requirements to ensure that reductions must continue within the nonattainment area, etc.

EPA believes that, by approving the Plan, EPA is approving the District's enforceable commitments to continue to implement the long-established programs in the IP to achieve the specified reductions. EPA and the public may enforce this emission reduction obligation if the District fails to demonstrate that the reductions have been achieved by the milestones. EPA therefore disagrees with the commenter that credit towards the section 189(d) calculation for the IP is unwarranted.

While the IP is indeed an incentive program and relies on guidelines rather than rules, the ISMP is clearly intended to be enforced through new Rules 3180 and 9510. In the plan, the District commits to final implementation of the ISMP regulations in the 4th quarter of 2004 sufficient to achieve the projected reductions shown for the milestone years, similar to other regulatory measures. By approving the plan, EPA is approving the District's enforceable commitments to implement new ISMP regulations to achieve the specified reductions. When Rules 3180 and 9510 are submitted as SIP revisions, EPA will review those regulations, like the future regulations associated with other committal measures, to ensure that the rules meet applicable requirements, including federal enforceability. Thus, EPA disagrees with the commenter's contention that the ISMP is an unenforceable and non-regulatory measure, and believes that it is appropriate to include it in the section 189(d) calculations.

Comment 5: Earthjustice comments that section 189(d) does not allow for "running averages" using "banked" credits from year to year to meet the annual 5% reduction requirement. Earthjustice also comments that the Addendum states that annual reduction requirements require "linear progress for quantitative milestones" for areas which meet certain requirements, as the SJV does. Finally, Earthjustice states that CAA section 182(c)(2)(B) regarding ozone plans specifically allows for averaging and had Congress intended similar treatment for PM-10 plans, it would have included such language in section 189(d).

Response: As discussed more fully in response to the commenter above, EPA believes that the explicit provisions of section 189(d) do not preclude an approach that would encourage earlier

emissions reductions to count towards the 5% calculation for subsequent years. Even if the statute were ambiguous on this point, EPA believes that an interpretation that encourages states to obtain the reductions earlier than might otherwise be required consistent with prompt adoption and implementation of BACM level controls and attainment of the NAAQS as expeditiously as practicable, is an appropriate interpretation. The commenter disparages the approach by referring to it as "banking" or "running averages," but EPA contends that such an approach is more consistent with the overall goals of the CAA and is more practical given what would otherwise be a potential disincentive to get reductions sooner out of concern that there might otherwise be a failure to get 5% reductions in a later year.

With respect to the commenter's reference to the "linear progress" requirement of the Addendum, as discussed in section II.F. below, that guidance addresses linear progress with respect to the reasonable further progress (RFP) provisions of the CAA applicable to the 2003 Plan. The discussion in the guidance, however, neither requires linear progress for RFP nor mentions at all the 5% requirement of section 189(d). Furthermore, EPA believes that strict adherence to the concept of a perfectly straight line on a graph representing emissions reductions is less important than obtaining the reductions earlier, if possible. Given the option, EPA would prefer that a section 189(d) plan with a ten year strategy obtain 50% PM-10 reductions in year one rather than a more rigid plan that provided only for a "linear" reduction of 5% per year for 10 years. Unfortunately, the difficulties of devising rules, implementing rules, and obtaining emissions reductions are not usually conducive to such approaches and require a balancing of what is technologically, economically, and practicably achievable. This may not easily result in a straight line on a graph.

EPA agrees with the commenter that the statutory language of section 182(c)(2)(B) explicitly directs EPA to allow a state to use early reductions to meet "reasonable further progress" requirements for VOC emission reductions. These provisions do not, however, apply to PM-10 and do not necessarily indicate or control how EPA should interpret the different language of section 189(d). The commenter takes the position that had Congress intended to allow any early PM-10 or PM-10 precursor reductions to count towards the 5% requirement for later years,

Congress would have inserted provisions similar to section 182(c)(2)(B) into section 189(d). EPA disagrees with the basic assertion that EPA should not credit early reductions towards the 5% calculation for a number of reasons, as discussed more fully in other responses. In this specific context, however, EPA notes that the bulk of the provision relevant to VOCs is necessary to specify the conditions under which EPA can allow a state to reduce the percentage of reductions otherwise required, not how to credit early emission reductions to meet the percentage reduction requirement for later years. This fundamental difference at least suggests that EPA need not follow section 182(c)(2)(B) even by analogy in interpreting section 189(d). To reiterate, EPA believes that its approach in effect ensures that the plan will achieve reductions of at least 5% of PM-10 or 5% of PM-10 precursors each year, but encourages earlier reductions rather than discouraging them.

Comment 6: Earthjustice comments that because the 2003 Plan relies on a 1.5 to 1 ratio of NO_x to PM-10 (secondary nitrate) reductions for some modeling purposes, EPA should require the District to use this ratio to determine how many tons of NO_x or PM-10 reductions are necessary to meet the section 189(d) 5% requirement. The commenter suggests that requiring the District to use this ratio might cause the District to attain the NAAQS as early as 2006, instead of its target date.

Response: EPA agrees that having approved the NO_x-PM-10 ratio for some purposes, it might theoretically be appropriate to consider requiring the District to use the ratio throughout the Plan, including in the section 189(d) 5% reduction calculation. However, in this respect, EPA believes that the literal language of section 189(d) refers to a plan that will obtain reductions of "5 percent of the amount of such emissions, as reported in the most recent inventory prepared for such area." The use of both the term "amount" and the reference to "the most recent inventory" clearly seem to refer to emissions in units of weight, most appropriately tons, given that this is the common unit of emissions inventories. The explicit language of section 189(d) does not refer to calculation of the required reductions of tons of PM-10 or PM-10 precursors by any method that would weight them differently or require a specific ratio between the tons of reduction. Unlike other provisions of the CAA which impose an explicit obligation to make reductions of a given pollutant in accordance with a set ratio; e.g., sections

182(a)(4), 182(b)(5), 182(c)(10), 182(d)(2), and 182(e)(1), section 189(d) does not include such a requirement.

The lack of explicit language directing EPA to require a state to make the PM-10 or PM-10 precursor reductions on a weighted or ratio basis is perhaps not surprising, given that Congress may well have recognized the inherent difficulties of specifying the proper ratio in all circumstances in advance in the statute. Nevertheless, had Congress desired EPA to make the calculations on an area by area basis, one would assume that the statute would expressly direct EPA to ascertain the proper ratio. Given that section 189(d) provides only that there must be a 5% reduction in the "amount" of the respective pollutants, EPA believes that the language is plain on its face that tons of PM-10 or tons of PM-10 precursor reductions are to be weighted equally.

Even if the language were ambiguous, EPA believes that its interpretation, that the statute directs the calculation of the percentage based upon the weight of the respective pollutants and a 1:1 ratio, would seem to be the easiest and most straightforward reading of the statute and method to perform the 5% calculation. Moreover, EPA notes that the legislative history cited by the commenters in support of other arguments discussed above, explicitly refers to section 189(d) as requiring a plan "to reduce the tonnage" of emissions and makes no explicit mention of any ratio between PM-10 and precursors. EPA continues to believe that the legislative history cited by the commenters is not necessarily controlling as to Congressional intent concerning the provision, but if the legislative history is clear on any point, it would seem to be that the 5% calculation is to be based on tonnage of emissions and there is no reference to setting a ratio between direct PM-10 emissions and PM-10 precursors.

Comment 7: The SJVUAPCD comments that EPA should approve both methods for demonstrating the 5 percent requirement. In particular, the District argued that adding the percentages of NO_x and PM-10 to meet the 5% requirement would be similar to the ozone rate of progress guidance which allows aggregation of VOC and NO_x reductions to achieve the 3% requirement. Given that there is no EPA guidance on meeting section 189(d), the commenter believes the ozone guidance for rate of progress should apply.

Response: As stated in the proposed rule, EPA does not believe that the method summarized in Table 7-1 satisfies the CAA section 189(d) 5% requirement because adding percentages

does not achieve the necessary 5% reductions. 69 FR 5412, 5430. To illustrate this as simply as possible, assuming 100 tons of PM-10 and 100 tons of NO_x, the District believes that a 2% reduction in PM-10 and a 3% reduction in PM-10 precursor should be allowed. However, this approach would only yield 5 tons of PM-10 and NO_x reductions. Since there are 200 tons of PM-10 and NO_x, EPA does not believe that one could argue that 5 tons is 5% of 200. Because this approach would not make sense from a simple mathematical perspective, EPA has concluded that this cannot be a proper interpretation of the provision.

The existing guidance cited by the commenters concerning the use of either VOC reductions or NO_x reductions to meet the rate of progress percentage requirements of other sections of the CAA is simply not controlling in light of the explicit statutory language of section 189(d). The commenters also misread the guidance. It requires the calculation of reduction of NO_x and VOCs to be either 3% of total NO_x and VOCs or 3% of NO_x and 3% of VOCs. Finally, EPA believes that it is not necessary to use the strained mathematical logic of the commenter's approach. As described above in response to other commenters, EPA does believe that the District's alternative method for calculation of the 5% reduction does comport with the statute, so EPA can properly approve the plan as meeting the requirements of section 189(d) requirements.

F. RFP Demonstration

Comment 1: Earthjustice comments that an analysis of the incremental reductions towards attainment is not provided in the 2003 PM-10 Plan. Earthjustice believes that the 5% demonstration does not satisfy the CAA section 172(c)(2) RFP and 189(c)(1) quantitative milestone requirements as it does not show linear progress toward the attainment date, which should be December 31, 2006.

Response: The 2003 PM-10 Plan implies that the section 172(c)(2) RFP requirement is satisfied by meeting the 5% requirement. However, as discussed in EPA's proposed rule, " * * * RFP is a separate statutory requirement and is to be determined relative to attainment. Thus, in order to satisfy the RFP requirement, there must be an analysis which shows that incremental reductions towards attainment are being made for both the 24-hour and annual standards. * * * [EPA's] evaluation of the attainment demonstration coupled with the expected yearly emissions reductions shows that RFP is being

met." We also determined that the 2003 Plan contains quantitative milestones which are to be achieved every three years until the area is redesignated to attainment. The reader is referred to the proposed rule for the details of our evaluation. 69 FR 5412, 5430-1531.

There is nothing in the language of either section 172(c)(2) or 189(c)(1) that requires linear progress. In fact, section 171(1) defines RFP as "such annual incremental reductions in emissions * * * as are required by this part [D] or may reasonably be required by the Administrator for the purpose of ensuring attainment * * * by the applicable date." Emphasis added. Thus the statute provides EPA with discretion to determine what constitutes RFP in individual cases.

In the Addendum, we explain that historically RFP has been met by showing annual incremental emission reductions sufficient generally to maintain at least linear progress towards attainment by the specified deadline. Addendum at 42015. We then provide several examples of when "[requiring linear progress reductions may be appropriate." Emphasis added. *Id.* The use of the word "may" clearly indicates that we did not intend to mandate linear progress in the cited circumstances. We further buttress this conclusion by explaining that "EPA will determine whether the annual emission reductions to be achieved are reasonable in light of the statutory objective to ensure timely attainment of the PM-10 NAAQS." *Id.* at 42016.

In the case of the SJV, we have concluded that the annual incremental reductions in PM-10 and NO_x emissions are sufficient without linear progress to meet the RFP requirements of sections 172(c)(2) and 189(c)(1).

G. Contingency Measures

Comment 1: Earthjustice states that EPA's proposed approval of the 2003 PM-10 Plan omits any discussion of contingency measures required by section 172(c)(9) and is in violation of the CAA and the Agency's own policy (Addendum at 40215). The likelihood that contingency measures will be necessary is a virtual certainty and in fact should have gone into effect within 60 days of EPA's July 23, 2002 finding of failure to attain. EPA has never proposed full approval of a SIP for a serious PM-10 nonattainment area without a discussion of the adequacy of contingency measures contained in the plan. The District of Columbia Circuit Court of Appeals in *Sierra Club v. EPA*, 294 F.3d 155 (D.C. Cir. 2002) recently vacated an EPA decision to approve a SIP without the required contingency

measures. The commenters request that EPA address the adequacy of the contingency measures in the Plan in its final action and then specifies the ways in which they consider that the measures fail to meet the requirements of the Act.

Response: EPA is not required by the CAA or Agency policy to act on contingency measures in a SIP at the same time that it acts on other elements of the plan. A SIP is not a single document that is prepared once and then reviewed and approved as a single action. Rather it is a collection of regulations, demonstrations, and other items that develops over time. When the State revises the plan, either to change an existing element or to add additional elements required by the statute, the revisions themselves, not the entire plan, are submitted to EPA. Thus, in reviewing the 2003 Plan, EPA did not have to consider whether the independent requirement to have contingency measures in the plan had been met.

This conclusion is well supported by the language and structure of the Act. The basic requirements of a SIP for a nonattainment area, including the contingency plan requirement, are listed in section 172(c). The introductory language, by referring to "plan provisions" and "plan items," makes clear that the contingency plan provision and the other subsections of this provision each set forth independent components of the overall plan. The specific plan revisions under review here are independent plan requirements that are required by separate sections of the statute, *e.g.*, section 189(b) and (d).

It is true that section 172(c)(9) refers to the inclusion of contingency measures in "the plan revision." It is ambiguous, however, as to what plan revision this section refers. For example, section 189(b) and (d) requires various revisions to be submitted to EPA on different schedules: for areas such as the SJV that were reclassified from moderate to serious under section 188(b)(1), the attainment demonstration is due within 4 years of reclassification and the BACM demonstration no later than 18 months from the reclassification. EPA determined that states must submit contingency measures for serious PM-10 areas (or otherwise demonstrate that adequate measures are in place) within 3 years of reclassification. Addendum at 42015. Thus, the contingency measures contemplated by section 172(c)(9) are intended to be part of a different plan revision from the attainment and BACM demonstrations required by section

189(b). The fact that these submissions were to be made at different times clearly demonstrates that EPA is not required to consider contingency measures in its approval of the 2003 Plan.

The severability of these provisions is made even more clear by section 110(k)(3), which was added as part of the 1990 Amendments to clarify that EPA is not required to approve or disapprove a submission as a whole, but may separately approve and disapprove different portions. It makes no sense to say that Congress gave EPA this authority, but at the same time prohibited EPA from approving the 2003 Plan without acting on the contingency measures in it. Because the statute clearly allows EPA to approve these elements of the plan without considering other elements such as contingency measures, that is the end of the question. *Chevron*, 467 U.S. at 842-43.

Consistent with the above interpretation of the Act, on April 13, 2000, EPA proposed to approve certain provisions of the serious area PM-10 plan for the Phoenix, Arizona nonattainment area. In the proposal, EPA stated that the "plan contains contingency measures as required by CAA section 172(c)(9). We are not proposing action on these contingency measures at this time. Contingency measures are a distinct provision of the Clean Air Act that we may act on separately from the attainment requirements." 65 FR 19964, 19965. See also 62 FR 1150 (January 8, 1997) and 65 FR 18903 (April, 10, 2000) (approval of provisions of California ozone plan revisions without acting on contingency measures in those revisions).

EPA agrees with the D.C. Circuit's holding in *Sierra Club*, 294 F.3d at 164, that contingency measures are required to be included in a SIP for a nonattainment area. EPA does not believe, however, that the Agency is prohibited from approving certain elements of the 2003 Plan without acting on the contingency measures in the plan. As demonstrated above, these are independent elements of the SIP that EPA can separately approve or disapprove. EPA also notes that the plan at issue in the D.C. Circuit's decision in *Sierra Club* was an ozone plan subject to the provisions of section 182(c)(9) regarding the inclusion of contingency measures, while this plan is a PM-10 plan not subject to those provisions. Because EPA is not acting on the contingency measures in the 2003 Plan in this action, the Agency is not responding to the comments raised regarding the adequacy of those

measures in the Plan. EPA intends to act separately on the pending contingency measures and will respond to all comments on those measures at that time.

H. Full Approval With Commitments Violates the CAA

Comment 1: Earthjustice comments that the Plan must contain actual, adopted control measures to attain the PM-10 standard. The only enforceable commitments allowed by the Act are those pursuant to CAA section 110(k)(4), conditional approvals, which require a commitment by the state to adopt specific enforceable measures within one year of the approval.

Response: Our proposed rule provides in detail EPA's rationale for accepting the enforceable commitments found in the 2003 PM-10 Plan (69 FR 5412, 5427-5429). In short, EPA believes, consistent with past practice, that the CAA allows for the approval of enforceable commitments under CAA section 110(k)(3) that are limited in scope where circumstances exist that warrant the use of such commitments in place of adopted measures. See 69 FR 5412, footnotes 28 and 29. The U.S. Court of Appeals for the Fifth Circuit recently upheld EPA's interpretation and specifically found that nothing in the CAA or in the legislative history supports the theory that section 110(k)(4) (added in the 1990 Amendments to the statute) was intended to supplant the Agency's use of enforceable commitments under sections 110(a)(2)(A) and 172(c)(6). The court further found that, in the 1990 Amendments to the CAA, Congress in fact expanded EPA's authority under section 110(a)(2)(A). In this respect, the court concluded that because that section "is silent on the issue of whether an enforceable commitment is an 'appropriate' 'means' or 'technique' to reach attainment, EPA's interpretation must be upheld if the court finds it a permissible construction of the statute." The court proceeded to do so. *BCCA Appeal Group et al. v. U.S.E.P.A. et al.*, 348 F.3d 93, 115 (5th Cir. 2003). In addition, see section II.C.1. above.

Comment 2: Earthjustice comments that EPA does not use consistent methods for calculating the percentage of commitments for NO_x and PM-10. Furthermore, EPA needs to evaluate the percentage of commitments used to specifically satisfy the 5% requirement.

Response: EPA estimates that the NO_x enforceable commitments make up approximately 15-16% of the overall reductions since 1999 needed for attainment of the annual and 24-hour

PM-10 standards (69 FR 5412, 5428). For PM-10, EPA estimates that the enforceable commitments make up approximately 72% and 92% of the reductions needed to attain the annual and 24-hour standards, respectively, in the attainment year, 2010 (69 FR 5412, 5428-5429).

EPA believes that the calculation of the reductions in the Plan attributable to enforceable commitments should include the historical and ongoing reductions from already adopted programs. This approach (which Earthjustice calls the "net emissions reductions" method) is used in estimating the NO_x reductions where the enforceable commitment reductions in 2010 are compared to the change in overall NO_x emissions since 1999 which include reductions from already adopted programs (*i.e.*, state and federal mobile source and district stationary source rules).⁴¹

For the PM-10 enforceable commitments evaluation, however, EPA uses a different approach. This is because "[t]he PM-10 inventories do not have the same steady decline exhibited by the NO_x inventories due to the need to further refine the backcasted inventories for PM-10." 69 FR 5412, 5428; see also 2003 PM-10 Plan, p. 4-8 to 4-9.⁴² Since using the NO_x approach does not provide a comparison of the 2010 PM-10 enforceable commitment reductions to the reductions from already adopted programs since 1999, EPA believes that a better approach in evaluating the PM-10 enforceable commitments reductions is to compare them to the total reductions needed in the attainment year (which Earthjustice calls the "annual emissions reductions" method).

The purpose of the percentage calculations for the NO_x and PM-10 enforceable commitments is to estimate the portion of the 2003 PM-10 Plan attributable to enforceable commitments. EPA believes the two approaches above do just that and does not believe that a consistent approach must be used. For this reason, EPA does

not believe that the percentage of enforceable commitments must be evaluated for separate CAA requirements such as the 5% requirement and reasonable further progress demonstrations.

Comment 3: Earthjustice comments that the "three-factor test" used to determine the acceptability of the commitments is not consistent with the Act. The fact that district court decisions have made State commitments enforceable does not mean that EPA can approve commitment-based plans, especially since there is nothing in the Act that allows it. Furthermore, even if the three-factor test is allowed, the factors are not met.

Response: EPA does not rely on district court decisions holding commitments enforceable as the basis for the Agency's approval of plans containing commitments. As discussed above and in our proposed rule, the Fifth Circuit Court of Appeals in BCCA Appeal Group recently upheld EPA's interpretation of CAA sections 110(a)(2)(A) and 172(c)(6) and the Agency's use and application of the three factor test in approving enforceable commitments in the Houston-Galveston ozone SIP. 69 FR 5412, 5427, footnote 30. In addition, as discussed below, EPA believes the three factors have been met.

Comment 4: Earthjustice comments that the first factor, that the commitments address a "limited portion" of the Plan, is not satisfied by the Plan and that the percentage of commitments calculated by EPA is extremely high. The 15-16% of commitments for NO_x reductions and 72-92% of commitments for PM-10 reductions are clearly not a limited portion of the Plan. Earthjustice points out that the Maricopa County, Arizona PM-10 plan had a limited portion of commitments which involved improvements to already adopted rules and improving testing and enforcement, and all of the BACM measures had been previously approved by EPA. The Clark County, Nevada plan's commitments were for incremental reductions above an already adopted baseline with substantial immediate reductions. These commitment percentages far exceed the 6% found to be reasonable by the Fifth Circuit Court [in BCCA Appeal Group] for the Houston SIP.

Response: The enforceable commitment component in the SJV plan is higher than for other areas such as Maricopa and Clark Counties; however, we believe that the percentages must be evaluated on a case-by-case basis since each area's circumstances are different.

For example, as noted in the proposed rule:

* * * a significant portion * * * of the needed reductions come from the Ag CMP Program which controls agricultural fugitive dust sources, a previously unregulated category. * * * measures for agricultural sources must be determined on a case-by-case basis. The Ag CMP Program is an effort that is well under way as the District has worked diligently with stakeholders * * * to develop the best available measures for the SJV. An enforceable commitment is necessary at this time in order to allow the additional time required to further assess the dust measures that the District will establish for agricultural sources. * * *

69 FR 5412, 5428-5429.

In contrast, Clark County did not need to include any significant agricultural controls in its plan, and neither Clark County nor Maricopa County needed to evaluate and prepare control strategies for secondary PM, while at the same time developing primary PM controls. Indeed, with the possible exception of the South Coast area, no area in the country has had to undertake the complexity of the control measure development task facing the SJV, with its remarkably diverse primary and secondary PM problem, the dominant place of agricultural controls in its attainment strategy, and the magnitude of its emissions reductions target. See also, section II.C.3., response to comment 7. Given the prevailing conditions in the SJV, EPA believes that the percentage of commitments in the Plan is acceptable.

Moreover, the majority of the SJV's PM-10 commitments have adoption and implementation dates in 2004. EPA noted in the proposal that "[g]iven the difficulties in controlling direct PM-10 in the SJV and the near term adoption and implementation dates, EPA believes the PM-10 reductions coming from enforceable commitments is acceptable." EPA continues to believe that the percentage of enforceable commitments for PM-10 is acceptable given these circumstances.

Comment 5: Earthjustice comments that the second factor, that the State and District are capable of fulfilling their commitment, is also not satisfied by the plan. Earthjustice does not understand how ongoing development, past records of accomplishment and a promise to fulfill the reduction commitments show that they are capable of fulfilling their commitments. Instead, Earthjustice notes the District's history of failures and believes there is no basis for EPA to conclude that the District will fulfill the Plan's commitments.

Response: EPA disagrees and believes that ongoing development, past record

⁴¹ The overall change in NO_x emissions since 1999 also includes emissions from growth. Thus, EPA believes this approach may provide a higher percentage estimate of enforceable commitments since the additional reductions necessary to offset any growth are not included in the percentage calculation.

⁴² According to the 2003 PM-10 Plan, "[o]ne reason for the apparent increase in growth in PM10 in the mid-1990s is that a significant new emissions inventory category, prescribed burning, totaling approximately 23 tons per day, was added to the emissions inventory in the late 1990s and was not back cast into prior year inventories. With that correction, the PM10 inventory will show a small decline during that period. * * * " *Id.*

of accomplishments and a promise (*i.e.*, enforceable commitment) to fulfill the reduction commitments do indicate that the District and State are capable of fulfilling their commitments. As discussed in our proposed rule (69 FR 5412, 5429), examples of ongoing development include the Ag CMP Program, Regulation VIII revisions and the State's mobile source measures. All of these programs are well on their way towards adoption and implementation. In addition, the State's long history of success in adopting new and challenging mobile source controls is a good indication that they will be capable of meeting their enforceable commitments. Finally, in the event that the Plan's category-specific enforceable commitments cannot be met, the District has also committed to "* * * adopt, submit and implement substitute rules and measures that will achieve equivalent reductions in the same adoption and implementation timeframes." SJVUAPCD Governing Board, Resolution No. 03-06-07, #10, June 19, 2003. The commitments in the 2003 Plan are for requirements and reductions that the District and State are capable of meeting and are enforceable by EPA and the public.

Comment 6: Finally, Earthjustice comments that the third factor, that the commitments are for a reasonable and appropriate period of time, is not satisfied by the Plan. For many categories the implementation dates extend beyond 2004 and even as far as 2020 for residential space heating. Furthermore, implementation dates beyond 2004 are unreasonable in light of the past delay (*e.g.*, BACM should have been implemented by 1997) and severity of the Valley's nonattainment problem. Finally, Earthjustice notes that Maricopa County's SIP commitments all had deadlines of less than one year after their approval and that the District has already slipped on the Ag CMP program deadlines.

Response: EPA continues to believe that overall the commitments are for a reasonable and appropriate period of time, especially given the circumstances in the SJV (see response to comment 4 in this subsection). Tables 4-15 and 4-16 (2003 PM-10 Plan, 4-52)⁴³ summarize the reductions and final implementation dates coming from the PM-10 commitments. Table 4-15 shows that the majority of the emissions reductions coming from commitments,

approximately 56.5 tpd, have final implementation dates by 2004. Approximately 9.9 tpd of the committed emissions reductions will occur after 2004 from Cotton Gins, Regulation VIII unpaved road measure, the Indirect Source Mitigation Program and the State and Federal Measures. Table 4-16 shows that approximately 63.5 tpd have final implementation dates by 2004 and approximately 10.2 tpd of the reductions will occur after 2004. Tables 4-17 and 4-18 summarize the reductions and final implementation dates coming from the NO_x commitments. For NO_x, the portion of reductions coming from commitments with implementation dates beyond 2004 is much higher (*i.e.*, approximately 34.3 tpd for the annual inventory and 34.0 tpd for the seasonal inventory); however, many of the NO_x reductions relied upon by the 2003 PM-10 Plan are from already adopted measures which will yield substantial reductions.

As noted by Earthjustice, the residential space heating commitment has a final implementation date of 2020, modeled after the Bay Area Air Quality Management District's program (2003 PM-10 Plan at 4-46); however, the Plan only relies on 0.1 tpd of reductions from this category which will be achieved in 2010.

Finally, as discussed above in response to comment 4 in this subsection, the nonattainment situation in the SJV is much more complex than for most other areas, such as Maricopa County, and EPA believes that a case-by-case evaluation of the needs for each area is warranted in determining whether commitments should be accepted. In this regard, we note that the Ag CMP program is extensive and complicated and believe that the District is working diligently to ensure that the program meets the 2004 implementation deadline in their commitment.

Comment 7: CRPE comments that EPA's decision to stop the Regulation VIII sanctions and FIP clocks based on a PM-10 Plan with commitments violates the CAA sections 110(c) and 179(a).

Response: As discussed above, EPA believes the enforceable commitments in the 2003 PM-10 Plan are approvable for overall plan purposes as well as for other nonattainment area requirements, such as RACM and BACM. On February 26, 2003, EPA finalized a conditional approval of Regulation VIII for RACM purposes and simultaneously finalized a limited approval and limited disapproval of Regulation VIII for BACM purposes (68 FR 8830). The conditional approval required SJVUAPCD to provide to EPA a RACM

demonstration within a year of the final action. The BACM limited disapproval identified as deficiencies SJVUAPCD's failure to submit a BACM demonstration for Regulation VIII or to make appropriate upgrades to Regulation VIII to ensure that it meets BACM requirements. Failure to meet the condition of the conditional approval or address the deficiencies identified in the limited disapproval would have FIP and sanctions consequences under CAA sections 110(c) and 179(a). However, as previously discussed, SJVUAPCD met the condition of the conditional approval and addressed the BACM deficiencies by including in the 2003 PM-10 Plan adequate RACM/BACM demonstrations and commitments to upgrade Regulation VIII. See EPA's TSD for the 2003 PM-10 Plan, January 27, 2004, pages 14-45). Therefore, this final action appropriately stops all FIP and sanctions clock implications of EPA's February 26, 2003 and earlier actions regarding Regulation VIII.⁴⁴

I. Adoption of All Feasible Measures (Section 179(d)(2)) for Ag CMP Program

Comment 1: CRPE comments that the proposed approval does not address CAA section 179(d)(2) which states that a SIP revision "* * * shall include such additional measures as the Administrator may reasonably prescribe, including all measures that can be feasibly implemented in the area in light of technological achievability, costs, and any nonair quality and other air quality-related health and environmental impacts." CRPE comments that the CMP concept allows agricultural sources to select at least one practice from each category and that this conflicts with the requirement for all feasible measures as stated by section 179(d)(2).

Response: CRPE misinterprets CAA section 179(d)(2) which provides, among other things, that SIP revisions triggered by a failure to attain under section 179(d)(1) "* * * shall include additional measures as the Administrator may reasonably prescribe, * * *" Emphasis added. It is clear from the plain language of this provision, *i.e.*, the use of the word "may" rather than "shall," that Congress intended the Administrator's action here to be permissive rather than mandatory. Under this provision,

⁴⁴ In a separate action raising different issues, certain organizations have filed an appeal with the Ninth Circuit Court of Appeals challenging EPA's February 23, 2003 action on Regulation VIII. See *Latino Issues Forum et al. v. U.S. EPA*, appeal docketed, No. 03-70987; *Associations of Irrigated Residents v. U.S. EPA*, appeal docketed, No. 03-71696 (9th Cir. March 4, 2003).

⁴³ Tables 4-15 and 4-16 represent the estimated emissions reductions from commitments for the annual and seasonal inventories, respectively. The annual inventory is representative of the annual PM-10 standard and the seasonal inventory is representative of the 24-hour PM-10 standard.

therefore, EPA has the option to mandate specific additional feasible measures beyond those measures otherwise required in nonattainment areas. EPA is not, however, required to prescribe such measures.

The 2003 Plan does, however, need to address the requirements of section 189(b)(1)(B) that BACM be applied to all significant sources such as agricultural sources covered by the CMP program. We have determined that the CMP program will expeditiously achieve a BACM level of control. We have also concluded that the Plan provides for attainment of the PM-10 standards as expeditiously as practicable. Therefore we did not believe it necessary to require additional measures pursuant to section 179(d)(2). Thus, since the provision of section 179(d)(2) cited by the commenters is discretionary and since EPA has not chosen to prescribe any additional SIP measures under it, neither the 2003 PM-10 Plan nor EPA's proposed rule was required to address it.

J. Approval of Commitments for VOC Sources—Wineries

Comment 1: The Wine Institute and the Manufacturers Council of the Central Valley comment that a great deal of work has been done in evaluating VOC emissions from wine fermentation. Commenters state that past work has indicated that winery controls were technically feasible, but not cost effective. Commenters provided data that indicate winery emissions are overestimated and state that the District has failed to include this information. Commenters ask EPA to remove this source category from the PM-10 Plan prior to EPA approval.

Response: Under the Act, states have primary responsibility for regulating air quality within their borders. Under CAA section 110(k)(3), EPA has an obligation to act on State submittals. While we do not believe a rule for wineries is required for purposes of satisfying the section 182(b)(1)(B) BACM requirement,⁴⁵ we do believe that such a rule will strengthen the SJV's SIP, especially since VOC reductions are needed for ozone attainment. Thus, EPA is approving the commitment under sections 301(a) and 110(k)(3) as strengthening the SIP.

K. Approvability of Indirect Source Mitigation Measure

Comment 1: The California Building Industry Association (CBIA) and its Affiliate Associations located in the SJV

comment that the Indirect Source Mitigation Program does not meet CAA criteria requiring control measures to provide quantifiable, surplus, enforceable, permanent, and adequately supported reductions in air emissions. Thus, CBIA recommends that the measure should not be approved.

Response: See section II.E., response to comment 4.

L. Windblown Dust Issues

Comment 1: A commenter (C. Swanson) cites an excerpt from the PM-10 Plan, Appendix G, Table G-15 "BACM Comparative Analysis for "On-Field Activities" concerning the BACM justification discussion associated with the "Other" category of the District's proposed Ag CMP:

The SJV does not have a windblown dust problem to anywhere near the extent of the other nonattainment areas. The SJV has some of the lowest average wind speeds in the country. No wind related exceedances have been recorded in the basin during the last three years. Wind speeds are highest during the spring when PM-10 levels are at their lowest. The majority of the fugitive dust emissions are generated from earth disturbing activities. Certain soil types and crops are more prone to windblown dust problems. The "Other" category will give the farmers with the potential to experience wind blown dust emissions the flexibility to address this issue with a CMP.

The commenter states that this excerpt provides a synopsis of the PM-10 Plan's characterizations of airflow in the valley and how it relates to the regulation of agricultural land use. The commenter believes the Plan's characterizations do not adequately portray the conditions in the entire valley and may not lead to proper regulatory actions. The commenter states that his study of the conditions of one dust storm on June 20, 2002 in Northwest Kern County contradicts the statements in the excerpt and that wind events on this side of the valley appear to have an episodic component related to a regular summer cycle of heating and cooling in the SJV.

Response: Below we respond to the commenter's specific comments on the statements cited from the Plan. In general, however, the information in Appendix G, Table G-15 reflects monitored PM-10 exceedances and the District's analysis of meteorological data on exceedance days. In contrast, the data provided by the commenter is not sufficient to support the conclusions made with regard to regulatory actions, given that wind speed data alone does not provide evidence of PM-10 concentrations.

Comment 2: C. Swanson disagrees with the Plan's assessment that the San Joaquin Valley Air Basin does not have

a windblown dust problem to anywhere near the extent of the other [PM-10] nonattainment areas. Examination of Caltrans data for the southern San Joaquin Valley reveals that in the year 2002, Caltrans posted signs warning of low visibility due to windblown dust during all months of the year. Some locations had warnings posted four different times during the year.

Response: Caltrans windblown dust postings are based on field observations by Caltrans employees, as opposed to measured PM-10 concentrations. They do not reveal whether exceedances of the PM-10 standards occurred at the locations of the postings. Therefore, neither the District nor EPA can rely on them for purposes of identifying PM-10 exceedances. The Caltrans-reported events generally do not correlate with days on which PM-10 monitors exceeded the PM-10 standards.⁴⁶ This means that the Caltrans-reported events are not being recorded by the monitors and are therefore spatially limited. The District's monitors have detected some high hourly rates downwind for a few of the events, but not for substantial enough periods that the 24-hour PM-10 standard is exceeded.⁴⁷

Comment 3: C. Swanson disputes the following statement in the PM-10 plan: "The SJVAB has some of the lowest average wind speeds in the country. No wind related exceedances have been recorded in the basin during the last three years." Commenter states that while large areas in the center of the valley have very low average wind speeds, large areas around the periphery of the basin can be subject to periods of high wind velocity and windblown dust. The current siting of monitoring stations does not capture the air flow patterns on the western side of the valley in Kern County and therefore cannot be used to represent conditions in Western Kern County.

Response: The ambient monitoring network for the SJV operated by the District and CARB was designed to meet the requirements of EPA regulations at 40 CFR part 58. Monitoring for representative air flow patterns is not one of the criteria used to design a criteria pollutant monitoring network. The SJV 2003 PM-10 Plan did utilize meteorological data from the District's ambient monitoring network as well as other non-district monitoring networks, such as the Automated Surface Observing System (ASOS) sponsored by the Federal Aviation Administration,

⁴⁶Letter from James Sweet, SJVUAPCO, to Doris Lo, EPA Region 9, April 15, 2004, page 2 (4/15/04 letter).

⁴⁷4/15/04 letter, page 2.

⁴⁵ See above comments and responses in section II.A.2. and C.11.

National Weather Service, the U.S. Department of Defense, and the California Irrigation Management Information System (CIMIS), in evaluating episodes for exceedance days at PM-10 monitors in the SJV. These networks included many meteorological sites in the western and southwestern portions of the SJV. During the episodes studied, high wind speeds were not observed at these western and southwestern meteorological sites. "Meteorological Analysis Applied to the San Joaquin Valley Air Pollution Control District's 2003 PM-10 State Implementation Plan," SVUAPCD, DRAFT (May 29, 2003). The District acknowledges that no definitive statement can be made about peak PM-10 concentrations at Blackwells Corner absent a PM-10 monitoring site near the location; however, there are insufficient resources to saturate the valley with monitoring sites at a density that would be required to establish a definitive case for the entire Valley. *Id.*, page 2. In accordance with EPA regulations, the District's monitoring sites are selected to evaluate exposure of populated areas to adverse air quality caused by anthropogenic activity. Low population on the west side of the SJV has resulted in a lack of monitors in that area. *Id.*, pages 1 and 7. EPA has evaluated the adequacy of the PM-10 monitoring network for the SJV and concluded that "* * * the network meets all applicable statutory and regulatory requirements and is adequate to support the technical evaluation of the PM-10 nonattainment problem in the [District's] plan." Evaluation of the Adequacy of the Monitoring Network for the San Joaquin Valley, California for the Annual and 24-Hour PM-10 Standards; Bob Pallarino, EPA Region 9, Air Division; September 22, 2003.

Comment 4: C. Swanson states that 2002 wind speed data collected at a CIMIS station in Blackwells Corner documents periods of high wind velocity during all times of the year, contrary to the PM-10 Plan's statement that wind speeds are highest during the spring when PM-10 levels are at their lowest. The Blackwells Corner data shows that more wind events occur during the summer period than the winter/spring period.

Response: The statements in the PM-10 Plan cited by the commenter concerning wind velocity provide an accurate, general characterization of the SJV. The District acknowledges that exceptions to the characterization of low wind speeds occur in passes, along ridges, on mountainous terrain and other areas of terrain influence that

create slope flows.⁴⁸ The District's meteorological analysis of wind speeds associated with measured PM-10 exceedances found that they largely occurred during periods of low winds and stagnant conditions in the fall and winter.⁴⁹

Comment 5: C. Swanson states that CIMIS data for Blackwells Corner indicates several days throughout the year with sustained periods of high wind velocity that exceed the 13 mph wind velocity threshold described in the PM-10 Plan as a point of possible entrainment of geological material.⁵⁰ The commenter provides a table of the aforementioned CIMIS wind data for Blackwells Corner. The commenter states that data from the nearby Lost Hills National Oceanic and Atmospheric Administration (NOAA) vertical profile corroborates the CIMIS data and some of the longest periods of sustained high winds are during the summer months when local soils may be dryer and have disturbed surfaces from agricultural activities.

Response: We agree that CIMIS data indicates several days throughout the year in the Blackwells Corner area with sustained periods of wind velocity capable of elevating fugitive dust from disturbed surfaces.⁵¹ However, based on this information alone, we cannot conclude that the Blackwells Corner area or other areas in its immediate downwind vicinity are experiencing PM-10 exceedances. The Blackwells Corner wind velocities are not representative of typical wind velocities in other parts of the SJV, as evidenced by the District's compilation of wind speed data associated with PM-10 exceedance days. The District conducted a specific analysis of the days on which CIMIS sites at Blackwells Corner and other west-side CIMIS sites historically recorded elevated winds.⁵² While one-in-six-day monitoring captured a representative sample of days where CIMIS sites recorded elevated winds (18% coincidence), the District did not find a correlation of those days with observed PM-10

⁴⁸ *Id.*, page 1.

⁴⁹ One recent exception is a May 20, 2002 Bakersfield-Golden exceedance that the District attributes to a large-scale wind episode involving thunderstorms and hail. 4/15/04 letter, page 2.

⁵⁰ Commenter also cites a 2003 report by V. Etyemezian of Desert Research Institute in support of relying on 13 mph as the appropriate wind velocity threshold needed to generate fugitive dust.

⁵¹ The District acknowledges that CIMIS data reports 118 days in the Blackwells Corner area with winds over 13 mph.

⁵² The District's analysis reviews CIMIS wind speed data between 1990 and the present for the top one-hundred values of maximum hours observed with winds over 13 mph, as well as with other related data sets.

exceedances.⁵³ Only five PM-10 exceedance days spanning a 13-year period were identified as associated with strong winds.⁵⁴ The PM-10 Plan does recognize that windblown dust can occur from agricultural disturbed surfaces by including windblown measures in the "Other" category in the proposed Ag CMP Program.

M. Transportation Conformity and the Trading Mechanism

Comment 1: The commenter (TPAs) references the trading mechanism discussion in the proposed rule (69 FR 5412, 5416-5417). This section of the proposal discusses the transportation conformity trading mechanism. The commenter requests a clarification on the requirement for a new analysis of the emission trading, for subsequent conformity findings, once the U.S. Department of Transportation (DOT) has approved a conformity finding which relied upon the trading mechanism. Specifically, the commenter requests that a new analysis of emissions trading be completed only when a new regional emissions analysis is required for the new conformity finding.

Response: EPA agrees with the commenter that a new analysis of trading is only required when a new regional emissions analysis is also required. Once the U.S. DOT has approved a conformity finding which relied upon the trading mechanism, the transportation planning agency cannot necessarily rely on that trading scenario for future conformity findings that require a new regional emissions analysis.

Comment 2: The commenter (TPAs) also requests that the proposed rule, which states that the trading mechanism can only be used once approved by EPA, be modified to state that the trading mechanism could be used upon an EPA finding that a budget is adequate. The commenter feels that existing language permits use of trading once budgets in the SIP are adequate.

Response: The commenter is correct that if an area has a trading mechanism in an approved SIP for a criteria pollutant, and that trading mechanism permits the trading of precursors and/or the pollutant, then the language of 40 CFR 93.124(c), the conformity rule, does permit trading to occur among pollutants or precursors for budgets once EPA finds the budgets adequate. However, the trading mechanism must be approved as part of the SIP before it can be used, even if adequate or approved budgets already exist. Section

⁵³ 4/15/04 letter, pages 3-4.

⁵⁴ *Id.*, page 4.

93.124(c) only allows trading among budgets for the purposes of conformity if there is an approved mechanism in the SIP to allow trading to take place. The provision in § 93.124(c) specifically states that:

[a] conformity demonstration shall not trade emissions among budgets which the applicable implementation plan (or implementation plan submission) allocates for different pollutants or precursors, or among budgets allocated to motor vehicles and other sources, unless the *implementation plan* establishes appropriate mechanisms for such trades.

Emphasis added. The references to the “applicable implementation plan” and the “implementation plan” in the second and last line of this paragraph are consistent with the definition for ‘applicable implementation plan’ in § 93.101 of the conformity rule. The definition states that: “Applicable implementation plan is defined in section 302(q) of the CAA and means the portion (or portions) of the implementation plan, or most recent revision thereof, which has been approved under section 110, or promulgated under section 110(c), or promulgated or approved pursuant to regulations promulgated under section 301(d) and which implements the relevant requirement of the CAA.” Furthermore, the reference to the implementation plan submission is in regard to any SIP which establishes budgets, not one which establishes a trading mechanism.

EPA does not make adequacy findings on trading mechanisms in submitted SIPs. EPA’s adequacy review is limited to determining whether the budgets in a SIP meet the criteria in § 93.118(e)(4). For more information regarding adequacy, please refer to the preamble of EPA’s June 30, 2003, proposed rule, which includes our current adequacy policy to date (68 FR 38979–38984).

Comment 3: The commenter (Earth Matters) references the proposed rule at page 5415 (Section IV.B.2., second to last paragraph, fourth sentence and Footnote 7). This section of the proposal discusses the interconnections between conformity findings for subarea budgets by the multiple Metropolitan Planning Organizations (MPOs) in the SJV. The proposal clarified that if an individual MPO could not show conformity to their individual county budget, then the remaining MPOs in the SJV cannot make any new conformity determinations. The commenter requests that this requirement apply to Federal actions only.

Response: EPA cannot clarify that the action applies to Federal actions only since this requirement does apply to

both actions by U.S. DOT and by MPOs in adopting conformity documents. This requirement is not a new requirement. Section 176(c) of the Clean Air Act clearly states that conformity applies in nonattainment and maintenance areas. Section 176(c) also states that the Federal government and MPOs cannot approve transportation activities unless they conform to a SIP, and SIPs are established for a nonattainment or maintenance area. In a nonattainment or maintenance area with more than one MPO, all MPOs must conform even if the SIP has established subarea budgets. If an individual MPO lapses, it has not demonstrated that it can conform to its subarea budgets. Therefore, there is no way for the other MPOs to show that their planned transportation activities still conform to the SIP until the lapse is resolved.

Comment 4: The commenter (Earth Matters) also requests that EPA add clarification that this requirement and associated clarifying language apply solely during a conformity lapse that results from a Transportation Improvement Plan (TIP) or Regional Transportation Plan (RTP) expiration only.

Response: EPA disagrees with the commenter. In an area with subarea budgets and more than one MPO, if conformity for one MPO lapses for any reason, the other MPOs in the area cannot determine conformity until the first MPO resolves its lapse. This prohibition on other MPOs applies whether the conformity lapse is caused by the expiration of a transportation plan or TIP, or any another reason, such as failure to determine conformity within 18 months of approval of a SIP that establishes new budgets.

In an area with more than one MPO, if one MPO lapses, the other MPOs in the area would not lapse immediately. Instead, the other MPOs can still proceed with projects in their current TIPs. However, these other MPOs could not make new conformity determinations until the lapsing MPO resolves the lapse by re-establishing conformity for its plan and TIP.

N. Other Comments

Comment 1: Several commenters noted the health issues caused by PM-10 and other pollutants. Commenters wanted clean air as soon as possible and no more delays.

Response: EPA believes that the 2003 PM-10 Plan provides a road-map towards meeting the PM-10 standards as soon as possible for the SJV.

Comment 2: One commenter (LaSalle) stated that the PM-10 standards and plan are built upon insubstantial

evidence. Commenter stated that the PM-10 standard was last revised in 1987 and more recent studies needed to be addressed.

Response: The purpose of the 2003 PM-10 Plan is to achieve the PM-10 standards in the SJV. Evaluation of the PM-10 standards is outside the scope of the 2003 PM-10 Plan and this rulemaking. In addition to the PM-10 standards, EPA has promulgated standards for PM-2.5 (40 CFR 50.7) and is currently developing guidance for their implementation.

Comment 3: CRPE comments that the 2003 PM-10 Plan fails to comply with the requirements of the CAA and that EPA’s approval of the Plan is nothing more than an attempt to avoid promulgating a Federal Implementation Plan (FIP).

Response: EPA’s proposed approval provides detailed discussions of how each of the CAA requirements are adequately addressed by the 2003 PM-10 Plan. When possible, EPA prefers approving a State’s plan requirements in lieu of promulgating a FIP. We have expedited our rulemaking to avoid a FIP for the SJV, but we do not believe that we proposed to approve an unapprovable plan.

Comment 4: EPA received comments (LaSalle) that the public comment period does not meet the requirements of due process. Given the complexity and technicality of the 2003 PM-10 Plan, comment suggests 180 days as a more appropriate timeframe for public review and comment.

Response: EPA provided a 30-day comment period which was extended for an additional 2 weeks, until March 19, 2004. The 2003 PM-10 Plan is a complicated document; however, prior to the publication of EPA’s proposed rule, the District and State held public processes to discuss the Plan with the public. Numerous workshops were held prior to the SJV’s Board’s adoption of the 2003 PM-10 Plan in June 2003. Following that adoption, the State also provided a comment and response period before its adoption of the Plan and submittal to EPA.

Comment 5: EPA received comments (Jones) complaining about pollution from a cement plant in Tehachapi, California. Commenter wanted controls found in SJV’s Regulation VIII applied to the source.

Response: Tehachapi, California is located in Eastern Kern County, outside of the SJV PM-10 nonattainment area. EPA Region 9 Enforcement Office and the Kern County Air Pollution Control Office has been notified of the complaint.

III. EPA Action

EPA is finalizing its approval pursuant to CAA section 110(k)(3) the following elements of the 2003 PM-10 Plan as meeting the CAA requirements applicable to serious PM-10 nonattainment areas that have failed to meet their attainment date:

(1) EPA is approving the emissions inventories as meeting the requirements of section 172(c)(3).

(2) EPA is approving the RACM/BACM demonstration for all significant PM-10 and NO_x sources in the SJV as meeting the requirements of sections 189(a)(1)(C) and 189(b)(1)(B). Approval of this demonstration with respect to fugitive dust sources regulated by SJVUAPCD Regulation VIII terminates all sanction, FIP, and rule disapproval implications of our February 26, 2003 action. 68 FR 8830.

(3) EPA is approving, as meeting the requirements of sections 179(d)(3) and 189(d), (a) the attainment demonstration, associated motor vehicle budgets and trading mechanism; (b) commitments to adopt and implement new, identified stationary, area and mobile source BACM to reduce PM-10 and NO_x emissions; (c) a commitment for the Indirect Source Mitigation Program; (d) a commitment for 10 tpd of NO_x and 0.5 tpd of PM-10 reductions from State mobile source measures; (e) and the commitment to submit a SIP revision by March 31, 2006 based on a mid-course review that will include an evaluation of the modeling from the CRPAQS and the latest technical information (inventory data, monitoring, etc.) to determine whether the level of emission reductions in the 2003 PM-10 Plan is sufficient to attain the PM-10 standards.

(4) EPA is approving under section 110(k)(3) and 301(a) as strengthening the SIP the commitments to adopt and implement VOC and SO_x measures.

(5) EPA is approving the NO_x and PM-10 emissions levels necessary to meet the 5% annual reduction requirement in section 189(d).

(6) EPA is approving the reasonable further progress demonstration as meeting the requirements of section 172(c)(2) and 189(c)(1).

(7) EPA is approving the Plan as meeting the quantitative milestones requirement in section 189(c)(1).

(8) EPA is approving the PM-10 and NO_x motor vehicle emission budgets for purposes of transportation conformity for 2005, 2008, and 2010 and the associated trading mechanism for demonstrating conformity for years after 2010, under CAA section 176(c)(2)(A). These budgets are reproduced in EPA's

proposed rule on the 2003 PM-10 Plan in a table printed at 69 FR 5416. As proposed, we are limiting this approval to last only until the effective date of our adequacy findings for new replacement budgets.⁵⁵ The trading mechanism is discussed in EPA's proposed rule at 69 FR 5416.

IV. Statutory and Executive Order Reviews

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this 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 action merely approves state law as meeting Federal requirements and imposes no additional requirements beyond those imposed by state law. Accordingly, the Administrator certifies that this 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 rule approves pre-existing 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 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 67249, November 9, 2000). This 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 approves a state rule implementing a Federal standard, and does not alter the relationship or the distribution of power

and responsibilities established in the Clean Air Act. This 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 Clean Air Act. 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 Clean Air Act. 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 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.*).

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).

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by July 26, 2004. 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 section 307(b)(2).)

⁵⁵ For further discussion of the rationale for, and effect of, this limitation, please see the proposed rule at 69 FR 5415, and EPA's promulgation of a limitation on motor vehicle emission budgets associated with various California SIPs, at 67 FR 69139 (November 15, 2002).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen oxides, Particulate matter, Reporting and recordkeeping requirements, Volatile organic compounds.

Dated: April 28, 2004.

Deborah Jordan,

Acting Regional Administrator, Region IX.

■ Part 52, Chapter I, Title 40 of the Code of Federal Regulations 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 F—California

■ 2. Section 52.220 is amended by revising paragraph (c)(317) and adding paragraph (c)(327) to read as follows:

§ 52.220 Identification of plan.

(c) * * *

(317) The plan and amended regulation for the following APCD were submitted on August 19, 2003, by the Governor's designee.

(i) Incorporation by reference.

(A) San Joaquin Valley Unified Air Pollution Control District.

(1) Rule 4901, adopted on July 15, 1993 and amended on July 17, 2003.

(2) 2003 PM10 Plan, San Joaquin Valley Plan to Attain Federal Standards for Particulate Matter 10 Microns and Smaller (all except "Contingency Control Measures" section, pages 4–53

to 4–55), adopted on June 19, 2003, and "Regional Transportation Planning Agency Commitments for Implementation," dated April 2003 (Volume 3).

* * * * *

(327) The following plan was submitted on December 30, 2003 by the Governor's designee.

(i) Incorporation by reference.

(A) San Joaquin Valley Unified Air Pollution Control District.

(1) Amendments to the 2003 San Joaquin Valley Plan to Attain Federal Standards for Particulate Matter 10 Microns and Smaller, adopted December 18, 2003.

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