

Environmental Protection Agency

40 CFR Part 52

[MT-001-0007, MT-001-0008, MT-001-0009 and MT-001-0010; FRL-7175-1]

Approval and Promulgation of Air Quality Implementation Plans; Montana; Billings/Laurel Sulfur Dioxide State Implementation Plan

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: EPA is partially approving and partially disapproving the Billings/Laurel sulfur dioxide (SO₂) State Implementation Plan (SIP) revisions submitted by the State of Montana in response to a SIP Call. EPA is also limitedly approving and limitedly disapproving one provision of the SIP revisions. The SIP revisions establish, and require seven sources to meet and monitor compliance with, SO₂ emission limitations and other requirements in the Billings/Laurel area. The intended effect of this action is to make federally enforceable those provisions that EPA is approving and to disapprove those provisions that do not meet applicable requirements. EPA is taking this action under sections 110 and 179 of the Clean Air Act (Act). In a separate action being published today, EPA is proposing action on other provisions of the Billings/Laurel SO₂ SIP.

EFFECTIVE DATE: This final rule is effective June 3, 2002.

ADDRESSES: Copies of the documents relevant to this action are available for public inspection during normal business hours at the Air and Radiation Program, Environmental Protection Agency, Region 8, 999 18th Street, Suite 300, Denver, Colorado, 80202 and copies of the Incorporation by Reference material at the Air and Radiation Docket and Information Center, Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460. Copies of the State documents relevant to this action are available for public inspection at the Montana Department of Environmental Quality, Air and Waste Management Bureau, 1520 E. 6th Avenue, Helena, Montana 59620.

FOR FURTHER INFORMATION CONTACT: Laurie Ostrand, EPA, Region 8, (303) 312-6437.

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Definitions

For the purpose of this document, we are giving meaning to certain words or initials as follows:

- (i) The words or initials *Act* or *CAA* mean or refer to the Clean Air Act, unless the context indicates otherwise.
- (ii) The initials *CEMS* mean or refer to continuous emission monitoring systems.
- (iii) The words *EPA*, *we*, *us* or *our* mean or refer to the United States Environmental Protection Agency.
- (iv) The initials *FIP* mean or refer to Federal Implementation Plan.
- (v) The initials *MBER* mean or refer to the Montana Board of Environmental Review.
- (vi) The initials *MDEQ* mean or refer to the Montana Department of Environmental Quality.
- (vii) The initials *MSCC* mean or refer to the Montana Sulphur & Chemical Company.
- (viii) The initials *NAAQS* mean or refer to the national ambient air quality standards.
- (ix) The initials *SIP* mean or refer to the State Implementation Plan.
- (x) The initials *SO₂* mean or refer to sulfur dioxide.
- (xi) The words *State* or *Montana* mean the State of Montana, unless the context indicates otherwise.
- (xii) The initials *TSD* mean or refer to the Technical Support Document.
- (xiii) The initials *YELP* mean or refer to the Yellowstone Energy Limited Partnership.

I. Summary of EPA's Final Action

Apart from those provisions we are disapproving, limitedly approving/limitedly disapproving, proposing to act

on in a separate action published today (see discussion below), or not acting on, we are approving all other aspects of the Billings/Laurel SO₂ SIP, which the State of Montana submitted in response to our SIP Call. See Background section V.D. in our proposed rulemaking action published on July 28, 1999 (64 FR 40791) for a discussion of the SIP Call. Our approval is based on several interpretations of provisions of the SIP. The interpretations described in our proposed approval still apply except that, based on comments received, we have revised the interpretation of "low sulfur fuel gas." See section V.Q. below. We caution that if we find it too difficult to enforce certain variable (or pro-rated) emission limitations at several of the sources or if data are not available to determine the emission limitations on a regular basis, we will reconsider our approval. Also, if we determine that the State-only provisions, as implemented, appear to limit or constrain or otherwise have a chilling effect on the Montana Department of Environmental Quality's (MDEQ's) enforcement of the SIP, we will reconsider our approval or take other appropriate action under the Act. Our reconsideration could occur under section 110(k)(6) of the Act or we could complete another SIP Call under sections 110(a)(2)(H) and 110(k)(5) of the Act. We caution that if sources are subject to more stringent requirements under other provisions of the Act (e.g., section 111 new source performance standards; Title I, part C prevention of significant deterioration; or SIP-approved permit programs under Title I, part A), our approval of the SIP (including emission limitations and other requirements), would not excuse sources from meeting these other, more stringent requirements. Also, our action on this SIP is not meant to imply any sort of applicability determination under other provisions of the Act (e.g., section 111; Title I, part C; or SIP-approved permit programs under Title I, part A).

*We are disapproving the following provisions of the Billings/Laurel SO₂ SIP*¹:

- The escape clause (paragraph 22 in the ExxonMobil² and MSCC stipulations and paragraph 20 in the

¹ The SIP was submitted in the form of orders, stipulations, exhibits and attachments for each source covered by the plan. The majority of the requirements are contained in the exhibits. Throughout this document when we refer to an exhibit, we mean exhibit A to the stipulation for the specified source.

² Between our July 28, 1999 proposal action and this action, Exxon's name was changed to ExxonMobil. Our July 1999 proposal simply referred to Exxon.

Cenex, Conoco, Montana Power, Western Sugar and YELP stipulations).

- The MSCC stack height credit and emission limitations on the sulfur recovery unit (SRU) 100-meter stack (paragraph 1 of the ExxonMobil stipulation, paragraphs 1 and 2 of the MSCC stipulation, and section 3(A)(1)(a) and (b) and 3(A)(3) of the MSCC exhibit).

- The emission limitation on MSCC's auxiliary vent stacks, section 3(A)(4) of MSCC's exhibit.

- The attainment demonstration, because of improper stack height credit and emission limitations at MSCC.

- The attainment demonstration for lack of flare emission limitations at Cenex, Conoco, ExxonMobil, and MSCC.

- The attainment demonstration, because of the disapproval of the emission limitation for MSCC's auxiliary vent stacks.

- The Reasonably Available Control Measures (RACM) (including Reasonably Available Control Technology (RACT)) and Reasonable Further Progress (RFP) requirements for Cenex.

- The provisions that allow sour water stripper emissions to be burned in the flare at Cenex and ExxonMobil (the following phrase from section 3(B)(2) of Cenex's exhibit A and section 3(E)(4) of ExxonMobil's exhibit A: "or in the flare"; the following phrases in section 4(D) of Cenex's exhibit A and section 4(E) of ExxonMobil's exhibit A: "or in the flare" and "or the flare".)

We are limitedly disapproving the following provision:

- The emission limitation for the 30-meter stack at MSCC (section 3(A)(2) of MSCC's exhibit A) because it lacks a reliable compliance monitoring method.

We are not acting on the following provisions:

- The provisions in section 6(B)(3) of MSCC's exhibit that require certain monitoring equipment to support the variable emission limitations.

In a separate action published today, we are proposing action on the following provisions of the Billings/Laurel SO₂ SIP submitted on July 29, 1998³:

- YELP's emission limitations (in section 3(A)(1) through (3) of YELP's exhibit).

- ExxonMobil's coker CO-boiler emission limitation (in section 3(B)(1) of ExxonMobil's exhibit).

- ExxonMobil's F-2 crude/vacuum heater stack emission limitations and attendant compliance monitoring methods (specifically, section 3(A)(2) of exhibit A; section 3(B)(3) of exhibit A; the following phrase from section 3(E)(4) of exhibit A "except that the sour water stripper overheads may be burned in the F-1 Crude Furnace (and exhausted through the F-2 Crude/Vacuum Heater stack) or in the flare during periods when the FCC CO Boiler is unable to burn the sour water stripper overheads, provided that: (a) such periods do not exceed 55 days per calendar year and 65 days for any two consecutive calendar years, and (b) during such periods the sour water stripper system is operating in a two tower configuration."; section 4(E) of exhibit A; and method #6A of attachment #2,⁴ of exhibit A).

- ExxonMobil's fuel gas combustion emission limitations and attendant compliance monitoring methods (in sections 3(A)(1), 3(B)(2), 4(B), and 6(B)(3) of ExxonMobil's exhibit).

- Cenex's combustion sources emission limitations and attendant compliance monitoring methods (specifically, section 3(A)(1)(d) of exhibit A; the following phrase from section 3(B)(2) of exhibit A "except that those sour water stripper overheads may be burned in the main crude heater (and exhausted through the main crude heater stack) or in the flare during periods when the FCC CO boiler is unable to burn the sour water stripper overheads from the "old" SWS, provided that such periods do not exceed 55 days per calendar year and 65 days for any two consecutive calendar years."; section 4(B) of exhibit A; section 4(D) of exhibit A; and method #6A of attachment #2⁵ of exhibit A).

We have also revised the regulatory text from what was proposed. The regulatory text appears at the end of this notice. The proposed regulatory text started at 64 FR 40807 (July 28, 1999). As indicated later in this notice, we are not selecting the order of sanctions as

we had proposed. Therefore, we are *not* including the regulatory text that was proposed for 40 CFR 52.32(b). Also, we proposed to conditionally approve several provisions of the SIP. Since we are not finalizing the conditional approval of those provisions, and instead are proposing action on them in a separate notice being published today, the regulatory text at the end of this notice also excludes from the incorporation by reference the provisions we proposed to conditionally approve. *See* 40 CFR

52.1370(c)(46)(i)(A), (C) and (G). We also expanded 40 CFR 52.1370(c)(46)(i)(A) and (C) to explicitly indicate the phrases not being incorporated by reference at this time. Additionally, based on comments received, we are not acting on an additional provision of MSCC's exhibit and excluding it from the incorporation by reference. *See* 40 CFR 52.1370(c)(46)(i)(E). Finally, we added regulatory text at the end of this notice to indicate those provisions of the stipulations and/or exhibits that we are partially or limitedly disapproving. *See* 40 CFR 52.1384(d).

II. EPA's Action on the State of Montana's Submittals

A. Why Is EPA Approving Parts of the State of Montana's Plan?

On July 28, 1999 (64 FR 40791) we proposed to partially approve the Billings/Laurel SO₂ SIP. Our proposed rulemaking action discussed several issues that we resolved with the State as well as interpretations we made of several provisions in the Billings/Laurel SO₂ SIP. We have considered the comments received⁶ and still believe we should partially approve the plan as proposed except that we are limitedly approving/disapproving one provision of the SIP, the emission limitation for the 30-meter stack at MSCC, that we had proposed to partially approve.

Additionally, EPA believes partially and limitedly approving the Billings/Laurel SO₂ SIP meets the requirements of section 110(l) of the Act. The approved provisions of the plan strengthen the Montana SIP by providing specific control strategies and compliance determining methods for SO₂ sources in Billings/Laurel, Montana which further the goals of and achieve progress toward attaining the SO₂ NAAQS.

⁶ The comments received and our response to the comments are discussed below in section V., entitled "What Comments Were Received on EPA's Proposed Action and How Is EPA Responding to Those Comments?"

³ In our July 28, 1999 proposed action we proposed to conditionally approve these provisions based on the Governor's commitment to address concerns we had raised. The Governor submitted a SIP revision on May 4, 2000 which was intended to fulfill the commitments. Since the Governor has submitted a SIP revision to fulfill the commitments, we are not finalizing our proposed conditional approval and instead are proposing separate action on parts of the July 29, 1998 submittal (*i.e.*, those parts we proposed to conditionally approve on July 28, 1999) and all of the May 4, 2000 submission (which is some cases modified the provisions of the July 29, 1998 submittal).

⁴ In our July 28, 1999 proposal action, we proposed to conditionally approve all of attachment #2 of ExxonMobil's exhibit. We should have limited our proposed conditional approval to only method #6A of attachment #2 of ExxonMobil's exhibit.

⁵ In our July 28, 1999 proposal action, we proposed to conditionally approve all of attachment #2 of Cenex's exhibit. We should have limited our proposed conditional approval to only method #6A of attachment #2 of Cenex's exhibit.

B. Why Is EPA Disapproving Parts of the State of Montana's Plan?

In our July 28, 1999 proposed rulemaking, we proposed to partially disapprove portions of the Billings/Laurel SO₂ SIP. We have considered the comments received and still believe we should partially disapprove the SIP as proposed. In addition, because of comments received we are not acting on an additional provision of the SIP. *See* the discussion in section II.B.2 below. Finally, because of comments received, we are limitedly disapproving one provision of the SIP. *See* the discussion in section II.B.6 below. The parts of the Plan we are disapproving follow:

1. Escape Clause

Each stipulation contains a paragraph which allows a source to withdraw its consent to the stipulation. The "escape clause" is printed in full in our July 28, 1999 proposed rulemaking action (*see* right column of 64 FR 40797).

We are disapproving the escape clause because, if sources invoke the escape clause, the MDEQ will no longer have a plan to implement. Specifically, we are disapproving the following: paragraph 22 in the ExxonMobil and MSCC stipulations; paragraph 20 in the Cenex, Conoco, Montana Power, Western Sugar and YELP stipulations. If sources invoke the escape clause after our final action on the SIP, we expect to respond by issuing another SIP Call under sections 110(a)(2)(H) and 110(k)(5) of the Act or taking other appropriate action under the Act. Additionally, with the disapproval of the escape clause, the provisions of the SIP that we approve will remain federally enforceable even if one or more of the sources invoke the escape clause. While our disapproval of the escape clause eliminates the risk of a source's future attempt to nullify the SIP, we do not believe our disapproval renders the SIP more stringent than the State of Montana intends, because our disapproval does not change the stringency of any of the substantive requirements the State of Montana has imposed and is currently able to enforce under the SIP. Moreover, a source's exercise of the escape clause would not represent the State's decision to suspend its own SIP or constitute any decision on the part of the State to change the SIP's enforceable requirements. Finally, since the escape clause is a provision that EPA could not lawfully approve under title I of the CAA, the only alternative to EPA's partial disapproval would be a total disapproval of the SIP, which we

believe the State would not favor over today's action.

2. MSCC Stack Height Credit and Emission Limitations on the Sulfur Recovery Unit (SRU) 100-Meter Stack

We are disapproving MSCC's SRU 100-meter stack height credit and emission limitations (paragraph 2 of the MSCC stipulation and sections 3(A)(1)(a) and (b) and 3(A)(3) of the MSCC exhibit) used in the attainment demonstration modeling for the Billings/Laurel area. We believe it is necessary to disapprove MSCC's emission limitations because the State of Montana has set limitations based on an amount of stack height credit for MSCC that is not supportable under section 123 of the Act or our stack height regulations.

Our July 28, 1999 proposed rulemaking action (starting in the left column of 64 FR 40798), and TSD to that proposal, discuss the Act's stack height requirements (*see* those documents for the complete discussion).

Additionally, because of comments received we are not acting on the monitoring provisions in section 6(B)(3) of MSCC's exhibit. Since we are disapproving MSCC's variable emission limitation, we believe it does not make sense to approve section 6(B)(3) of MSCC's exhibit, which requires MSCC to install certain monitoring equipment to support the use of the variable limitation. Section 6(B)(3) would be needed only if we were approving MSCC's variable emissions limitation.

3. Language in ExxonMobil and MSCC's Stipulations Related to Incorporation of Earlier Stipulations and Apportionment of the Airshed

Paragraph 1 of the ExxonMobil and MSCC stipulations discusses a contested case hearing and resultant February 2, 1996 stipulation and incorporates the February 2, 1996 stipulation by reference. We do not believe it is appropriate to incorporate the February 2, 1996 stipulation into the SIP because it discusses procedures and schedules for developing emission limitations for ExxonMobil and MSCC that have subsequently been developed and that, for MSCC, are not approvable (*see* discussion on stack height issue at MSCC in section II.B.2, above). Paragraph 1 of the ExxonMobil and MSCC stipulations also contains a statement that the company enters into the stipulation "in part, to preserve [the company's] rights to apportionment of the airshed resulting from the present SIP revision." Insofar as this statement implies that the companies or other air pollution sources are entitled to a

property interest in the ambient air in the Billings/Laurel area or enjoy a right to pollute the ambient air, this statement conflicts with the purpose and requirements of the Act and has no basis under federal law. By this statement we do not mean that we do not recognize emission rights created by statute (*e.g.*, Titles I and IV of the Act). However, the phrase "right of apportionment of the airshed" implies possessory rights to the ambient air. We are concerned that the phrase might imply rights less conditional than those created by the Act. Therefore, we are disapproving paragraph 1 of the ExxonMobil and MSCC stipulations.

4. MSCC Auxiliary Vent Stacks

We are disapproving the MSCC auxiliary vent stacks emission limitation (section 3(A)(4) of MSCC's exhibit). We believe it is necessary to disapprove this emission limitation because the exhibit does not restrict the sulfur content of the fuel burned in the boilers and heaters, when they are exhausting from auxiliary vent stacks, and lacks a monitoring method that would make the emission limitation practically enforceable. Without a restriction on the fuel burned and a compliance monitoring method, there is the potential that exceedances of the emission limitation would go undetected.

5. Attainment Demonstration⁷

For us to fully approve a SIP, the SIP must show that the NAAQS will not be violated, *i.e.*, that the area demonstrates attainment. Attainment demonstrations are usually carried out with computer models that are approved by us. The computer models take numerous factors into consideration to predict the effects that emissions from various sources will

⁷ One commenter stated that we did not acknowledge that Montana submitted two separate attainment demonstrations for SO₂—one for the Billings area and one for the Laurel area. The commenter indicated that the Laurel area was modeled assuming the SIP prescribed emission limitations for Cenex and the pre-SIP potential emissions for the Billings sources. Therefore, the Laurel SIP demonstrates compliance with the NAAQS regardless of whether a revised SIP is approved and implemented in Billings. The Billings area was modeled assuming all sources in Laurel and Billings area are at SIP prescribed emission rates. Therefore, the Billings SIP depends upon approval of the Laurel SIP to demonstrate attainment. The commenter is requesting that we acknowledge the two attainment demonstrations in our final action and treat the two separately in that action. We agree with the commenter and acknowledge that there are two attainment demonstrations—one for the Billings area and one for the Laurel area. However, since the flare issue applies to sources in Billings and in Laurel, we still believe the attainment demonstration for both areas should be disapproved for lack of enforceable flare emissions at the applicable sources.

have on levels of pollutants in the air. Models consider the typical meteorology and topography of the area, as well as physical parameters at a plant site, e.g., the height, temperature, and velocity at which pollutants are emitted. Based on these factors, as well as restrictions placed on sources to control their emissions, models are used to predict the highest pollution levels that can be expected to occur in the future. For the reasons discussed below, we are disapproving the attainment demonstrations for the Billings/Laurel SIP.

a. Improper Stack Height Credit and Emission Limitation at MSCC

The MDEQ used EPA-approved dispersion models to demonstrate attainment of the SO₂ NAAQS in the Billings/Laurel area. However, the modeling for the July 29, 1998 submittal of the SIP relied on emission limitations at MSCC that were established with a stack height credit that exceeded the good engineering practice (GEP) stack height. As discussed above in section II.B.2, we are disapproving the emission limitations and stack height credit for the 100-meter stack at MSCC. We are also disapproving the attainment demonstration because it relies on these improper emission limitations and stack height credit.

b. Lack of Flare Emission Limitations

With the July 29, 1998 submittal of the SIP, the State of Montana removed all reference to flare emission limitations from the exhibits submitted for Federal approval. In June 1998, the MBER adopted "Additional State Requirements" (hereinafter referred to as "State-only provisions") for each of the seven sources in the Billings/Laurel area. The State-only provisions include flare emission limitations and reporting requirements for the four sources that have flares (Cenex, Conoco, ExxonMobil, and MSCC). Because the State-only provisions were not submitted for inclusion in the Billings/Laurel SO₂ SIP, they may be enforced only by the MDEQ.

Since flare emissions were considered part of the attainment demonstration and since there appear to be routine emissions from flares, we believe the SIP should contain enforceable emission limitations for these emission points. Therefore, we are disapproving the SIP as it applies to the attainment demonstration for lack of enforceable emission limitations for flares. See our July 28, 1999 proposed rulemaking action, middle column, 64 FR 40801, for more information on this issue.

c. Disapproval of MSCC Auxiliary Vent Stacks Emission Limitation

As indicated above, we are disapproving the emission limitation on the auxiliary vent stacks in MSCC's exhibit because the exhibit does not restrict the sulfur content of the fuel burned in the boilers and heaters, when they are exhausting from auxiliary vent stacks, and lacks a monitoring method that would make the emission limitation practically enforceable. The attainment demonstration relies on the auxiliary vent stacks emission limitation at MSCC. Since we are disapproving the emission limitation, we believe it is also necessary to disapprove the attainment demonstration.

6. MSCC 30-Meter Stack

We are limitedly disapproving/limitedly approving the MSCC 30-meter stack emission limitation (section 3(A)(2) of MSCC's exhibit). We believe it is necessary to limitedly disapprove this emission limitation because the exhibit does not adequately limit the fuel burned in the boilers and heaters that are exhausting from the 30-meter stack, and does not provide a monitoring method that would make the emission limitation practically enforceable.⁸

7. Burning of Sour Water Stripper (SWS) Emissions in the Flare at Cenex and ExxonMobil

With the July 29, 1998 submittal of the SIP, Cenex's and ExxonMobil's exhibits now allow SWS emissions to be burned in the flare. As discussed above, flare emission limitations were deleted from the July 1998 submittal. Therefore, SWS emissions, if burned in the flare, are unregulated. We believe that unless flares have an enforceable emission limitation, it is unacceptable to allow SWS emissions to be burned in the flare.

⁸ In some cases, a SIP rule may contain certain provisions that meet the applicable requirements of the Act, but that are inseparable from other provisions that do not meet all the requirements. Although the submittal may not meet all of the applicable requirements, we may consider whether the rule, as a whole, has a strengthening effect on the SIP. If this is the case, limited approval may be used to approve a rule that strengthens the existing SIP as representing an improvement over what is currently in the SIP and as meeting some of the applicable requirements of the Act. At the same time we would disapprove the rule of the SIP for not meeting all of the applicable requirements of the Act. Under a limited approval/disapproval action, we approve and disapprove the entire rule even though parts of it do and parts do not satisfy requirements under the Act. The rule remains a part of the SIP, even though it has been limitedly disapproved, because the rule strengthens the SIP. The disapproval only concerns the failure of the rule to meet a specific requirement of the Act and does not affect incorporation of the rule as part of the approved, federally enforceable SIP.

Because we believe that allowing SWS emissions to be burned in the unregulated flare is not an acceptable approach, we are disapproving those provisions of the Cenex and ExxonMobil stipulations that would allow such approach (the following phrase from section 3(B)(2) of Cenex's exhibit A and section 3(E)(4) of ExxonMobil's exhibit A: "or in the flare"; the following phrases in section 4(D) of Cenex's exhibit A and section 4(E) of ExxonMobil's exhibit A: "or in the flare" and "or the flare".)

8. Reasonably Available Control Measures (RACM) Including Reasonably Available Control Technology (RACT) and Reasonable Further Progress (RFP) at Cenex

As indicated earlier, we are disapproving the attainment demonstration for the SIP. Because we are disapproving the attainment demonstration, we conclude that the RACM (including RACT) and RFP requirements have not been met in the Laurel SO₂ nonattainment area.⁹ See discussion in sections III.C.(15) and (16) of our TSD for further information.

C. Why Is EPA Proposing Action on Parts of the State of Montana's Plan?

In our July 28, 1999 proposed rulemaking action, we proposed to conditionally approve several provisions of the Billings/Laurel SO₂ SIP based on a commitment from the Governor of Montana to adopt specific enforceable measures by a specified date. See the July 28, 1999 action, 64 FR 40802—40803, for a complete discussion of those parts of the plan we proposed to conditionally approve. On May 4, 2000, the Governor of Montana submitted a SIP revision to fulfill his commitment. Since the Governor has fulfilled his commitment, we believe it is not necessary to finalize the conditional approval. Instead, a separate proposed rulemaking on parts of the July 29, 1998 submittal (i.e., those parts we proposed to conditionally approve on July 28, 1999) and all of the May 4, 2000 submittal (which in some cases modified the July 29, 1998 submittal) is also being published today.

The specific provisions of the July 29, 1998 submittal on which we are proposing a separate action today include:

(1) YELP's emission limitations (section 3(A)(1) through (3) of YELP's exhibit);

⁹ RACM (including RACT) and RFP requirements only apply in areas designated as nonattainment.

(2) ExxonMobil's coker CO-boiler emission limitation (section 3(B)(1) of ExxonMobil's exhibit);

(3) ExxonMobil's F-2 crude/vacuum heater stack emission limitations and attendant compliance monitoring methods (section 3(A)(2) of exhibit A; section 3(B)(3) of exhibit A; the following phrase from section 3(E)(4) of exhibit A "except that the sour water stripper overheads may be burned in the F-1 Crude Furnace (and exhausted through the F-2 Crude/Vacuum Heater stack) or in the flare during periods when the FCC CO Boiler is unable to burn the sour water stripper overheads, provided that: (a) such periods do not exceed 55 days per calendar year and 65 days for any two consecutive calendar years, and (b) during such periods the sour water stripper system is operating in a two tower configuration."; section 4(E) of exhibit A; and method #6A of attachment #2, of exhibit A);

(4) ExxonMobil's fuel gas combustion emission limitations and attendant compliance monitoring method (sections 3(A)(1), 3(B)(2), 4(B), and 6(B)(3) of ExxonMobil's exhibit); and

(5) Cenex's combustion sources emission limitations and attendant compliance monitoring methods (section 3(A)(1)(d) of exhibit A; the following phrase from section 3(B)(2) of exhibit A "except that those sour water stripper overheads may be burned in the main crude heater (and exhausted through the main crude heater stack) or in the flare during periods when the FCC CO boiler is unable to burn the sour water stripper overheads from the "old" SWS, provided that such periods do not exceed 55 days per calendar year and 65 days for any two consecutive calendar years."; section 4(B) of exhibit A; section 4(D) of exhibit A; and method #6A of attachment #2 of exhibit A.)

Because we are proposing separate action on the above provisions, at this time we are not incorporating these provisions into the Federally approved SIP. See the regulatory text that follows at the end of this document.

D. What Happens When EPA Approves Parts of the State of Montana's Plan?

Once we approve a SIP, or parts of a SIP, the portions approved are legally enforceable by us and citizens under the Act.

E. What Happens When EPA Disapproves Parts of the State of Montana's Plan?

Once we disapprove a SIP, or parts of a SIP, the disapproved portions are still enforceable at the State level but not at the Federal level. By disapproving parts of the plan, we are determining that the

requirements necessary to demonstrate attainment in the area have not been met and we may develop a plan or parts of a plan to assure that attainment will be achieved. Also, in some cases, once we disapprove a plan, sanctions may be imposed. As noted below, at this time, sanctions will not be imposed in the Billings/Laurel area as a result of this partial and limited disapproval.

F. What Happens When EPA Limitedly Approves and Limitedly Disapproves Parts of the State of Montana's Plan?

Once we limitedly approve/disapprove a SIP, or parts of a SIP, those provisions are legally enforceable by us and citizens under the Act. Under a limited approval/disapproval action, we approve and disapprove the entire rule even though parts of it do and parts do not satisfy requirements under the Act. The rule remains a part of the SIP, however, even though there is a disapproval, because the rule strengthens the SIP. The disapproval only concerns the failure of the rule to meet specific requirements of the Act and does not affect incorporation of the rule as part of the approved, federally enforceable SIP. To the extent the rule fails to satisfy requirements of the Act, we intend to develop a plan or parts of a plan to meet such requirements.

III. Other Issues Pertaining to State Authority

A. How Do the State-Only Provisions Affect EPA's Actions?

In our July 28, 1999 proposed rulemaking action we indicated that in June 1998, the MBER adopted "Additional State Requirements" for each of the seven sources in the Billings/Laurel area. These requirements (hereinafter referred to as the "State-only provisions") were not submitted for inclusion in the SIP and are enforceable only by the State of Montana. See 64 FR 40803, bottom right column of our July 28, 1999 action for a complete discussion of the State-only provisions.

We have considered the comments received on our discussion of State-only provisions in our proposal and still believe it is appropriate to conclude that since the State-only provisions were not included in the Billings/Laurel SO₂ SIP, we are not approving or disapproving these provisions nor are we relying on these provisions in approving or disapproving other provisions in the submitted SIP. Nothing in this action should be construed as making any determination or expressing any position regarding the State-only provisions or their impact on the SIP.

State-only provisions can affect only State enforcement of the SIP and cannot have any impact on federal enforcement authorities. We may at any time invoke our authority under the Act, including, for example, sections 113, 114, or 167, to enforce the requirements of the Billings/Laurel SO₂ SIP independent of any State enforcement effort. We may take action to enforce the SIP regardless of any State compliance determination or any constraint on State enforcement discretion which the State-only provisions may impose. In addition, citizen enforcement under section 304 of the Act is likewise unaffected by the State-only provisions.

If we were to determine that the State-only provisions, as implemented, appeared to limit, constrain, or otherwise have a chilling effect on state enforcement of the SIP, we would reconsider our approval or take other appropriate action under the Act. Our reconsideration could occur under section 110(k)(6) of the Act or we could complete another SIP Call under sections 110(a)(2)(H) and 110(k)(5) of the Act. Other appropriate action could include a finding of failure to implement the SIP under section 179(a)(4) of the Act or enforcement action under section 113(a)(2) of the Act, or both.

B. How Does Montana's Environmental Audit Act Affect EPA's Actions?

On May 5, 1997, the Governor of Montana signed a bill enacted by the legislature (the Voluntary Environmental Audit Act, Mont. Code Ann. §§ 75-1-101 *et seq.* (1999), (H.B. 293, effective October 1, 1997)) that creates immunity under State law from penalties for violations discovered during a voluntary environmental audit and creates a judicial privilege under State law for information contained in an environmental audit report.

In our July 28, 1999 action we indicated that nothing in our proposal action should be construed as making any determination or expressing any position regarding the State of Montana's audit privilege and penalty immunity law or its impact upon any provisions in the SIP, including the proposed revision at issue.

However, our concerns about the effect of the audit law on the State's ability to enforce the SIP have been addressed by a formal agreement with the State. On December 13, 1999, EPA and the State entered into a Memorandum of Agreement ("MOA") (see document # IV.C-32) concerning the effects of the audit law on state implementation and enforcement of all federal environmental programs in

Montana. Under the MOA, as long as the agreement and the State's legal interpretations of the audit law are in effect and functioning as intended, we and the State agree that State environmental programs, including the SIP, have sufficient authority to obtain and maintain EPA approval.

The State of Montana's audit privilege and immunity law affects only state enforcement and does not have any impact on federal enforcement authorities. We may at any time invoke our authority under the Act, including for example, sections 113, 114, or 167, to enforce the requirement or prohibitions of the State of Montana's plan, independent of any state enforcement effort. In addition, citizen enforcement under section 304 of the Act is likewise unaffected by a state audit privilege or immunity law.

IV. Other Rulemaking Actions

A. How Does This Final Action Relate to EPA's SIP Call?

In our July 28, 1999 proposal we indicated that our March 4, 1993 letter requesting revision of the Billings/Laurel area SO₂ SIP (*see* document # II.G-1) stated that the letter was not final Agency action subject to judicial review, and that a final Agency action would occur when we made a binding determination regarding the State's response. We have considered the comments received on our proposed rulemaking action and still believe it is appropriate to finalize action on the SIP Call and on the State of Montana's response to the March 4, 1993 letter; we are making a binding determination regarding the SIP Call and the State of Montana's response to the letter with this final rulemaking action.

B. Why Is EPA Not Imposing Sanctions?

In our July 28, 1999 proposed rulemaking action, starting at 64 FR 40804, right column, we proposed that the sanctions specified in section 179(b) of the Act should apply if our proposed disapproval action became a final disapproval action. We also requested comment on whether we should accelerate the sanctions under section 110(m) of the Act. After reviewing the comments¹⁰ received on our proposal action, we have decided not to select the order of sanctions that would apply in the Billings/Laurel area at this time. Consequently, if the 18-month sanctions clock that starts with today's disapproval of Montana's SIP expires without the State having corrected the identified deficiencies, no sanctions

will be imposed. In the future, if we choose to select the order of mandatory sanctions or to apply early discretionary sanctions, we would do so through rulemaking.

V. What Comments Were Received on EPA's Proposed Action and How Is EPA Responding to Those Comments?

Summary of Comments and Responses

Following is a summary of the comments received on the proposed rulemaking and our responses. The following is an outline of the subjects on which we received comments:

- A. SIP Call
- B. Sanctions
- C. Flares
- D. Dispersion Modeling
- E. EPA's Partial Approval
- F. Due Process for SIP Approval
- G. Escape Clause
- H. Language in ExxonMobil and MSCC Stipulations Related to Incorporation of Earlier Stipulations and Apportionment of the Airshed
- I. Default Approval of SIP
- J. Department Discretion
- K. Quarterly Data Recovery Rate (QDRR)
- L. Effect of the Montana Voluntary Environmental Audit Act
- M. Effect of State-only Provisions
- N. Enforcement and MDEQ Staffing
- O. Reasonably Available Control Measures (RACM) Including Reasonably Available Control Technology (RACT) and Reasonable Further Progress (RFP) at Cenex
- P. MSCC Auxiliary Vent Stacks
- Q. MSCC's 30-meter Stack
- R. ExxonMobil's and Cenex's Refinery Fuel Gas Limitation
- S. Variable Emission Limitations
- T. Minor Sources
- U. Compliance Determining Method—ExxonMobil's Coker CO-Boiler Stack and F-2 Crude/Vacuum Heater Stack
- V. Effect of the 1990 Amendments to the Clean Air Act
- W. Stack Height Issues

A. SIP Call

We issued a request for revision of the Billings/Laurel area SO₂ SIP by letter to the Governor of Montana, dated March 4, 1993 (*see* document # II.G-1). The request letter reflected our preliminary finding regarding the SIP's substantial inadequacy (SIP Call), and was published in the **Federal Register** on August 4, 1993 (58 FR 41430) (*see* document # II.G-3). In the request letter, we declared that the SIP Call would become final agency action when we made a binding determination regarding the State of Montana's response to the SIP Call. We proposed to make such binding determination regarding the SIP Call when we proposed to partially approve, conditionally approve, and partially disapprove the Billings/Laurel

SO₂ SIP revisions submitted by the State on Montana in response to the request letter. *See* 64 FR 40791, 40804 (July 28, 1999) (*see* document # III.A-2).

Summary of Comments and Response

Two commenters objected that the SIP Call is invalid and should be withdrawn.

We have considered the comments received and still believe our March 4, 1993 letter was appropriate and that we should make the SIP Call for the Billings/Laurel area a final agency action.

The following is a summary of the comments received and our response to the comments:

(1) *Comment:* Two commenters (MSCC letter, document # IV.A-19, comment #'s 1, 125; Goetz letter, document # IV.A-18, exhibit D, comment # III, p. 43) stated that the SIP Call is invalid and that subsequent actions by the State in response to the 1993 letter and by EPA on the State's SIP revision are invalid as well. These commenters submitted extensive comments on the dispersion modeling that was the basis of the 1993 letter, claiming that the modeling was defective and was not supported by monitoring data.

Response: We will address the comments on dispersion modeling and monitoring in section V.D. of this document, together with similar comments concerning the State's modeled demonstration of the effectiveness of the new SIP emission limitations. Please *see* section V.D., below ("Dispersion Modeling"). Here we will address other comments on the validity of the SIP Call.

(2) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 1; MSCC letter, document # IV.A-20, comment #'s 3.A, 3.B), stated that the SIP Call violates due process because it undoes an earlier approval of the existing SIP, while the letter was not made by rulemaking, was not properly noticed, and did not provide for timely and effective challenge because it was not denoted a final agency action. The commenter further stated that irreversible changes occurred without opportunity to challenge the underlying premises of the 1993 letter. Another commenter (Goetz letter, document # IV.A-18, exhibit D, comment # III, p. 43) stated that because the 1993 letter was not binding, presumably because it was not issued by rulemaking, no one could challenge its validity.

Response: The SIP Call does not violate due process. The provisions of the Act that authorize us to call for SIP revisions do not require rulemaking

¹⁰ *See* footnote 7 above.

until the Agency proceeds to make the SIP Call binding and final. Sections 110(a)(2)(H) and 110(k)(5) of the Act require (1) that we notify the State when we find that the applicable implementation plan is substantially inadequate to protect the NAAQS, and (2) that we make the notice public. When we sent our letter to the Governor of Montana on March 4, 1993 and published the letter in the **Federal Register**, see 58 FR 41430 (August 4, 1993) (document # III.G-3), we in effect provided our preliminary views regarding the SIP's substantial inadequacy and provided the State an early opportunity to respond to our assessment. Thus, we did not make a final, binding finding, and thus were not required to use notice and comment rulemaking procedures to issue the letter. Rather, the final binding action regarding the SIP Call, as well as our action on the State's response to the 1993 letter, is occurring in today's rulemaking. The SIP Call does not "undo" our prior approval of the 1977 SIP for the area or turn that approval into a disapproval. Any SIP Call denotes that the existing SIP has become inadequate, whether due to changes in conditions such as increased emissions, a change in requirements, or, as in this case, a change in our ability to measure the effectiveness of the SIP control strategy to protect air quality.

The opportunity to participate in the SIP development process that began with our letter to the Governor was provided by the public participation requirements of the Montana SIP and the proposed rulemaking in this action. See 64 FR 40791, 40806 (July 28, 1999) (document # III.A-2). The opportunity to review and comment on the proposed rule, which the commenters have exercised, satisfies the requirements of procedural due process mandated for SIP approval actions by sections 110(a) and 110(k) of the Act and section 553 of the Administrative Procedure Act. Under those provisions, the requirements of due process are satisfied by publication of a notice of proposed rulemaking with an opportunity for submission of written comments prior to final action. The Act does not require formal adjudication or formal rulemaking. See *Cleveland Electric Illuminating Co. v. E.P.A.*, 572 F.2d 1150, 1157 (6th Cir. 1978); *Buckeye Power, Inc. v. EPA*, 481 F.2d 162, 172 (6th Cir. 1973).

The appropriate mechanism for obtaining a formal hearing on our rulemaking on the SIP Call and on the SIP is to file a petition for review of this final action in the United States Court of Appeals for the Ninth Circuit, as

provided by section 307(b) of the Act. The procedural requirements for exercising the opportunity for judicial review of our final action are discussed elsewhere in this document.

(3) *Comment*: One commenter (MSCC letter, document # IV.A-19, comment #'s 1, 2nd page, 3, 4, 66 and other comments) stated that our SIP Call is an entirely discretionary act that was inadequately justified.

Response: The statutory provision authorizing SIP Calls provides that "[w]henever the Administrator finds that the applicable implementation plan for any area is substantially inadequate to attain or maintain the relevant national ambient air quality standard. * * * the Administrator shall require the State to revise the plan as necessary to correct such inadequacies." Section 110(k)(5) of the Act (emphasis added). While it is true that EPA has some discretion in finding whether a SIP is substantially inadequate, the use of the imperative "shall," rather than the optional "may," appears to require EPA action as mandatory and not discretionary, once we make a finding of substantial inadequacy.

The same commenter believes the SIP Call is not adequately justified and that the Administrator should withdraw the 1993 letter. We believe our technical support document for the SIP Call (document # II.G-2) adequately justifies our final binding decision to call for a SIP revision and that no withdrawal of the 1993 letter is necessary.

(4) *Comment*: One commenter (MSCC letter, document # IV.A-19, comment # 1, 2nd page) stated that our SIP Call intrudes on the primary responsibility of the State to implement the Clean Air Act, contrary to section 101 of the Act. Another commenter (Goetz letter, document # IV.A-18, exhibit D, comment # V, p. 61) raised the same objection to our proposed action on the SIP.

Response: Section 101 of the Act, "Congressional findings and declaration of purpose," is not a prescriptive provision and does not require particular action by anyone. But it does provide a statement of Congressional intent, which the remaining provisions of the Act effectuate. For example, section 101(a)(3) states a congressional finding that air pollution prevention and control are the "primary responsibility of States and local governments"; section 101(a)(4) states a finding that "[f]ederal financial assistance and leadership is essential for the development of cooperative Federal, State, regional, and local programs to prevent and control air pollution."

These and other provisions of section 101 of the Act declare an intent to create a cooperative relationship between the federal government and the States "to protect and enhance the quality of the Nation's air resources, so as to promote the public health and welfare" as expressed by section 101(b). As the courts have recognized, "The CAA simply 'establishes a program of cooperative federalism that allows the States, within limits established by federal minimum standards, to enact and administer their own regulatory programs, structured to meet their own particular needs.'" *Commonwealth of Virginia v. Browner* (80 F.3d 869, 883 (1996) (quoting *Hodel v. Virginia Surface Mining & Reclamation Ass'n*, 452 U.S. 264, 289, 101 S.Ct. 2352, 2367-68 (1981)).

The intent to create a cooperative relationship for air pollution control is effected by the other provisions of the Act, including section 109, which authorizes us to establish NAAQS; by section 110(a), which directs States to assume the primary responsibility of developing SIPs to protect the NAAQS; and by section 110(k)(5), which authorizes us to take a leadership role by calling for revision when SIPs are found inadequate. Montana's action here, developing and submitting a SIP revision in response to our 1993 letter, fulfills the congressional intent that States take primary responsibility for air pollution control. In the federal partnership, both functions are necessary: both the primary responsibility assumed by the States and our standard-setting and oversight role.

(5) *Comment*: Two commenters (MSCC letter, document # IV.A-19, comment # 2; Goetz letter, document # IV.A-18, exhibit D, comment, p. 9) stated that we improperly constrained the State's action in responding to the 1993 letter, by placing time limits on the State's response and threatening to impose sanctions and withhold federal funds if the State did not submit timely SIP revisions. One of the commenters (MSCC letter, document # IV.A-20, comment # 4F) also stated that until we have promulgated a formal SIP Call for Montana, and given Montana the statutory time following final promulgation of the formal SIP Call, we are not required and may not be authorized to promulgate a FIP. Another commenter (McGarity letter, document # IV.B-1) stated that the process has taken too long.

Response: The maximum allowable time limits for submission of revisions in response to a SIP Call are established by statute. Section 110(k)(5) of the Act

provides that we “*may* establish reasonable deadlines (not to exceed 18 months after the date of such notice) for the submission of such plan revisions.” (Emphasis added.) However, the statute does not require us to establish a deadline in all cases. In our letter of March 4, 1993, we requested that Montana submit its revisions within an 18-month timeframe, which is consistent with the maximum allowable time where we are making a SIP Call binding and final. Under the letter, the SIP revisions were due on September 4, 1994 if the State chose to comply with the request. The State submitted the revisions on September 6, 1995, nearly a year later than this date. These revisions were modified and resubmitted on August 27, 1996, April 2, 1997 and July 29, 1998. In light of these facts, it is not necessary to establish a further schedule and deadline for the State to respond to the SIP Call in today’s rulemaking, since we already have received the State’s response.

We did not impose sanctions on Montana for failure to submit the revisions on time, but we did indicate that sanctions would apply in a letter to the State dated September 19, 1994 (document # IV.C-31). This letter and subsequent letters to the State on the timing of sanctions, dated March 14, 1996 (document #’s II.B-16 and B-17), were premature, and we later corrected them. Our authority to impose sanctions under section 179 of the Act can only be implemented after we conduct rulemaking to select the order of the sanctions to be imposed for failure to meet requirements of the Act. See section 179(a) of the Act. Because we did not promulgate a general rule for applying sanctions for failure to meet a SIP Call, we can impose them only through specific rulemaking that achieves two things: first, making the SIP Call binding and final so that the State’s response becomes a “required” submission under the Act; and second, selecting the order of mandatory sanctions that will apply if the State fails to respond or if EPA disapproves the State’s response. In our proposed rulemaking action we proposed to take the prerequisite rulemaking actions and to apply sanctions in the event that our partial disapproval of the SIP revisions became final action. See 64 FR 40791, 40804 (July 28, 1999) (document # III.A-2). (Our final action on the proposal to impose sanctions is discussed in section V.B., below.)

With respect to whether we can promulgate a FIP without completing formal rulemaking on the SIP Call, by this action, we are promulgating a

formal SIP Call and can now propose a FIP to fill any gaps created by our disapproval of the Billings/Laurel SO₂ SIP. We do not agree with the commenter that the Act requires us to give the State additional time to respond to the SIP Call and SIP disapproval, before we propose a FIP. Section 110(c) of the Act requires that we promulgate a FIP “at any time within 2 years after” we disapprove a SIP revision in whole or in part. There is no minimum time period before we may promulgate a FIP, but rather a two-year maximum time within which we *must* promulgate a FIP. Because the State has already had nearly nine years in which to respond to the initial 1993 letter, we do not believe that allowing additional time will serve the public interest in protecting the NAAQS through federally enforceable limitations on SO₂ emissions.

(6) *Comment:* Two commenters (MSCC letter, document # IV.A-19, comment # 2; Goetz letter, document # IV.A-18, exhibit D, comment # 2, p. 9) also stated that the untimely threat to impose sanctions exerted improper and extreme pressure on Montana and the sources in the area to respond to the 1993 letter. One commenter (MSCC letter, document # IV.A-19, comment # 1, 3rd page) stated that the threat of sanctions was coercive and had the effect of forcing the State to impose emission limitations that were unauthorized and unconstitutional.

Response: These comments will be addressed in section V.E., below, discussing the Tenth Amendment and other constitutional and statutory challenges to our SIP action.

(7) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 1, 1st page) stated that the 1993 letter was invalid because the letter incorrectly stated that the existing SIP for the area did not contain enforceable emission limitations.

Response: Contrary to the commenter’s statement, the 1993 letter does not contain a statement that the pre-1993 SIP did not include enforceable emission limitations. When we issued the 1993 letter, we were aware that some enforceable limitations on SO₂ emissions were in place. We took those limitations into account in our analysis. For example, the modeling demonstration that formed the basis of the 1993 letter showed violations of the NAAQS for SO₂ at emission levels allowed under existing emission limitations. The 1993 letter did state our view that the SIP in effect at that time was inadequate to attain and maintain the SO₂ NAAQS and that emission

reductions would likely be necessary to protect the NAAQS.

(8) *Comment:* One commenter (MSCC letter, document # IV.A-20, comment #’s 3J, 3K, 3N, 3Q, 3R) stated that the SIP Call is not binding, adequate or legally effective to say the SIP was inadequate because allowable and actual emissions have been reduced and voluntary improvements have occurred since 1993. Additionally, the commenter stated that since the 1993 letter additional information and facts have become available to further dispute or moot the results of the 1993 modeling and any opinion based thereon.

Response: The 1993 letter was supported by the evidence available at the time it was issued. That evidence could not have taken into account future events such as more restrictive emission limitations in state permits. Such later actions are irrelevant to the validity of the 1993 letter, though possibly relevant to Montana’s response to the letter. Voluntary reductions in emissions since the 1993 letter are also irrelevant; they do not affect the validity of the 1993 letter or our rulemaking on the SIP Call and the SIP revisions.

(9) *Comment:* Two commenters (MSCC letter, document # IV.A-20, comment #’s 3.H., 3.L; Goetz letter, document # IV.A-18, exhibit D, comment # III.B, pp. 44-45) stated that the SIP Call is not binding, adequate or legally effective to say the SIP was inadequate because ambient monitoring in the Billings/Laurel area, both before and after the 1993 letter, did not show any violations of the SO₂ NAAQS.

Response: For a discussion of whether contrary monitoring data invalidate the computer modeling used for the SIP Call and SIP development, readers are referred to the response to comments on modeling in section V.D., below. With respect to measurements of current concentrations, the emissions inventory for the Billings/Laurel area indicates that actual SO₂ emissions have declined since 1993. One commenter (MSCC letter, document # IV.A-20, comment # 3.Q) notes that CEMS at the sources show lower emission rates now than at the time of the modeling. Ambient concentrations of SO₂ measured by the area’s monitoring network, not surprisingly, show a similar decline. To the extent that these reductions reflect the State’s efforts to restrict emissions as part of its control strategy, they demonstrate the effectiveness of Montana’s response to the SIP Call.

B. Sanctions

We proposed that the regulatory scheme issued for sanctions generally, under 40 CFR section 52.31, should also

apply here if our proposed partial disapproval of the SIP became a final action or if our adopted final conditional approvals later converted to disapprovals. We proposed to apply the sanction rule's provisions regarding the timing of sanctions. We also asked for comment on whether we should impose sanctions under section 110(m) of the Act to make the sanctions effective immediately upon the effective date of partial disapproval or conversion from conditional approval to disapproval, and on the geographic scope of any such discretionary sanctions.

Summary of Comments and Response

Eight commenters submitted comments on our sanctions proposal. Five of the eight commenters were opposed to our imposing sanctions, one commenter seemed only opposed to sanctions in Billings, and two commenters felt we should go beyond what was proposed and apply sanctions throughout the State. Some commenters were also opposed to applying sanctions immediately.

We have considered the comments received, and in our final rule, at this time, we have decided not to select the order of sanctions that would be necessary to apply mandatory sanctions (section 179(b)), or to impose discretionary sanctions (section 110(m)) in the Billings/Laurel area or anywhere else in the State of Montana. Thus, sanctions are not automatic in the Billings/Laurel area as a result of our partial and limited disapproval of the SIP, even if the State does not correct the identified deficiencies within the 18-month period starting with today's disapproval. To apply mandatory sanctions under section 179, we must complete a rulemaking action to specify the order of sanctions. Because the sanctions are not automatic before such action is completed, we believe we can use some of the principles of discretionary sanctions in deciding whether or not sanctions should be applied in the Billings/Laurel area.

We are not required to apply discretionary sanctions under section 110(m) of the Act. Section 110(m) says "[t]he Administrator *may* apply any of the sanctions listed in section 179(b) at any time (or at any time after) the Administrator makes a finding, disapproval or determination under paragraphs (1) through (4), respectively, of section 179(a) in relation to any plan or plan item...required under the Act..." Further, in the preamble of our rulemaking action for discretionary sanctions we indicated that we will exercise section 110(m) sanctions earlier than 18 months only in cases where: (1)

the State has indicated an explicit resistance to resolving a plan or program deficiency or to making a required plan or program submittal; or (2) special circumstances, particular program needs, or time constraints dictate the need for use of such sanctions. *See* 59 FR 1481 (middle column), January 11, 1994.

In this particular case, the State initially submitted a SIP in September 1995 and then spent several years revising and updating the SIP to, among other things, address our concerns with previous SIP submittals. In a letter dated September 27, 1999 from Mark Simonich, Montana Department of Environmental Quality (MDEQ), to William Yellowtail, EPA, the MDEQ expressed a desire to correct the SIP so that it is approvable. (*See* document # IV.A-31.)

This history shows that the State has not shown resistance to resolving its plan deficiency or to making the required plan submittal. In addition, sources were required to meet the emission limitations in the Billings/Laurel SO₂ SIP when the State's Board Order was signed (June 12, 1998), except where another effective date is specified in the exhibit A or attachment(s). Therefore, on the whole, the plan is being implemented now.

Because of the State's efforts to submit an approvable SIP and because the SIP is being implemented, we believe that it is not appropriate to apply discretionary sanctions in the Billings/Laurel area, or anywhere else in the State of Montana, at this time. In the future, if we choose to apply discretionary sanctions or to select the order of mandatory sanctions that would apply, we would do so through rulemaking.

The following is a summary of the comments received and our response to the comments:

(1) *Comment:* Several commenters stated that sanctions are not appropriate in any form, because there have been substantial reductions in SO₂ emissions and ambient concentrations in the area; the area meets the NAAQS; and the State and industry have made a good faith effort to submit a SIP to us. (*See* State letter, document # IV.A-23, comment #'s 1A, 1B, 1C, 1D, 1E; Cenex letter, document # IV.A-26, Montana Petroleum Association letter, document # IV.A-17; ExxonMobil letter, document # IV.A-28, State letter, document # IV.A-31, MSCC letter, document # IV.A-20, comment # 4B, 6A; MSCC letter, document # IV.A-19, comment #'s 112, 114.)

Response: We agree that the State of Montana has made a good faith effort to submit an approvable SIP and that is

why we have decided not to apply sanctions at this time. However, we do not agree that substantial reductions in SO₂ emissions and ambient concentrations alone should warrant not applying the sanctions. Although sources over the past several years have reduced their actual SO₂ emissions, and there has been a corresponding reduction in monitored ambient concentrations, the SIP allows sources to emit more SO₂ than they actually do. Also, we have long held that SO₂ monitoring may not be a true indication of ambient concentrations because of the nature of SO₂ plumes. *See* our September 16, 1982 memorandum from Sheldon Meyers, Director, Office of Air Quality Planning and Standards to David Kee, Director, Air and Management Division, Region V, entitled "Milwaukee SO₂ Nonattainment Designation," and April 21, 1983 memorandum from Sheldon Meyers, Director, Office of Air Quality Planning and Standards to Regional Air Division Directors, entitled "Section 107 Designation Policy Summary" (document #'s IV.C-26 and IV.C-27, respectively). In both memoranda, we indicate that in most SO₂ cases, a small number of monitors is usually not representative of the air quality for the entire area. *See* also response to comments D.2.a. and b.

(2) *Comment:* One commenter stated that imposing sanctions on Montana is unfair because the State made a good faith effort to develop the plan; the plan contains all the necessary elements and shows attainment; the plan may be unnecessary and later overturned by a court or even a subsequent Administrator; and EPA's criticism of the lack of approved emission limitations at this point source arises solely from EPA's failure to approve a reasonable plan and demonstration, and not the State's failure to submit it. The commenter also stated that Montana is not being treated equally with other areas that are attaining the NAAQS. (*See* MSCC letter, document # IV.A-20, comment #'s 4B, 4D, 4E, 6; MSCC letter, document # IV.A-19, comment # 112.)

Response: As indicated above, we agree that the State of Montana has made a good faith effort to submit an approvable SIP and that is why we have decided not to apply sanctions at this time. We do not agree that the plan submitted by the State contains all the necessary elements and shows attainment. *See* our proposed rulemaking action and TSD, document #'s III.A-2 and III.B-1, respectively, for a complete explanation of why we do not believe the submitted plan contains all the necessary elements. We do not

agree that we should not impose sanctions because of speculation about future challenges to our action or subsequent EPA Administrators. Finally, we do not agree that Montana is not being treated equally with other areas that are attaining the NAAQS.

(3) *Comment:* Several commenters stated acceleration of sanctions is not appropriate. (See Conoco letter, document # IV.A-24; Cenex letter, document # IV.A-26.) One commenter stated it is not appropriate to accelerate sanctions for failure to submit a SIP that we could approve in response to a SIP Call the commenter believes was not binding. (See MSCC letter, document # IV.A-19, comment # 111.)

Response: We agree that it is not appropriate to accelerate sanctions, at this time. The ability to accelerate sanctions comes under our discretionary sanction authority in section 110(m) of the Act. As indicated above, in the preamble of our rulemaking action for discretionary sanctions we indicated that we will exercise section 110(m) sanctions earlier than 18 months only in cases where: (1) the State has indicated an explicit resistance to resolving a plan or program deficiency or to making a required plan or program submittal; or (2) special circumstances, particular program needs, or time constraints dictate the need for use of such sanctions. See 59 FR 1481 (middle column) January 11, 1994. We believe the State has not shown an explicit resistance to resolving a plan deficiency or making a required plan submittal. At this time we do not believe there are special circumstances which warrant accelerating sanctions.

We do not agree with the commenter who stated that we should not accelerate sanctions because the plan is approvable and the 1993 letter was not binding. The issue of whether the 1993 letter was binding is discussed in section V.A., above. Our proposed rulemaking action and TSD provides a full explanation of why we believe the SIP is not fully approvable. See document #'s III.A-2 and III.B-1, respectively.

(4) *Comment:* Several commenters stated that sanctions are not appropriate since we were involved when the SIP was developed. The commenters stated our involvement blurred the State's primary role in developing the SIP and our role in approving the SIP. (See State letter, document #IV.A-23, comment #'s 1B, 1C, 1E; Cenex letter document # IV.A-26)

Response: We do not agree that we should not impose sanctions since we were involved when the SIP was being developed. We generally review and

comment on SIPs as they are being developed and during the public comment period. Often states will ask for our interpretation of the Act, regulations and guidance so that SIPs, once submitted, will be approvable. In its comments on the proposal, the State of Montana portrayed our involvement in the SIP development as "extensive and at times, overreaching." We do not agree with this characterization of our involvement and review. However, since we are not applying sanctions, at this time, we do not believe it worthwhile to debate the appropriateness of our involvement with respect to whether that should have any bearing on whether to apply sanctions.

(5) *Comment:* Several commenters stated that imposing sanctions sends the wrong message to the State and sources for their efforts and is inconsistent with the intent of Congress, which is clean air, not punishment. (See State letter, document # IV.A-23, comment # 1E.)

Response: We do agree that, in this case, sanctions may send the wrong message to the State for its SIP efforts and therefore we are not applying the sanctions. We do not agree, however, that applying sanctions would be inconsistent with Congressional intent. By authorizing sanctions for certain kinds of state planning failures, Congress intended to assure that SIPs and SIP revisions would be developed on time, would provide adequate controls, and would otherwise satisfy Act planning requirements.

(6) *Comment:* Several commenters stated that imposing sanctions in this case is a discretionary act by EPA and due to the circumstances in this case the sanctions should not be imposed. (See State letter, document # IV.A-23, comment # 1E; Cenex letter, document # IV.A-26; MSCC letter, document # IV.A-20, comment # 4A; MSCC letter, document # IV.A-19, comment # 112.) One commenter stated we are creating a rule structure just so that we could impose sanctions in Montana. (See MSCC letter, document # IV.A-20, comment # 4A.) One commenter questions whether we can impose discretionary sanctions under section 110(m) of the Act in cases such as this where section 179 is not applicable. (See State letter, document # IV.A-23, comment # 1E.)

Response: We agree that applying sanctions is a discretionary act in this case and due to the circumstances the sanctions should not be applied at this time. We also agree with the commenter that in our proposal we were creating a rule structure to impose sanctions. Because sanctions are not automatic in

this particular case we believed we had to create a rule to impose them.

With respect to the commenter who questioned whether we could apply section 110(m) in cases where EPA is not exercising its authority under section 179, we already addressed this issue when we finalized our criteria for exercising discretionary sanctions under the title I of the Act (59 FR 1476, January 11, 1994). In the January 11, 1994 action, 59 FR 1479-1480, we indicated that "EPA believes that section 110(m) and section 179, although interrelated, do set up two distinct sanctions processes." Additionally, on page 1480 of the January 11, 1994 action, third column we indicated that "EPA disagrees that section 179 provides the sole authority for imposing sanctions. * * * In fact, the EPA believes the reference to statewide sanctions under section 110(m) makes it clear that section 110(m) establishes a different authority to sanction states. * * *

While our sanctions authority under both provisions is triggered by a state failure regarding a required submission under the Act, we believe we have independent authority under section 110(m) to impose sanctions, even if we have not completed a separate rulemaking under section 179 to select the sequence of mandatory sanctions. We are choosing not to impose discretionary sanctions at this time. If we decide to impose sanctions in the future under section 110(m) we would propose them through notice and comment rulemaking and the public could comment at that time.

(7) *Comment:* One commenter stated that sanctions are not appropriate because the 1993 letter was not binding, adequate and/or legally effective as a determination that the SIP was inadequate. The same commenter stated we need to go through a rulemaking process on the SIP Call before we can start a sanction clock. The commenter stated that until we go through a rulemaking process we have circumvented the public notice, comment and appeals process that should precede any sanctions. (See MSCC letter, document # IV.A-20, comment #'s 3A, 3B, 4B, 4C, 4D, 5E.)

Response: In this case, we do not agree that sanctions would be inappropriate merely because the 1993 letter was not binding. Today's final action itself makes the SIP Call binding, and partially and limitedly disapproves the State's response to the SIP Call. Section 179(a) of the Act provides the statutory authority to apply sanctions for disapprovals of a SIP, in whole or in part, that is required to be submitted

under a SIP Call (section 110(k)(5)). Today's rulemaking renders the SIP Call binding and final, and takes final disapproval action on the State's required response. Therefore, under the statute, EPA would have the authority to select the order of sanctions that would be necessary to apply mandatory sanctions (section 179(b)), or impose discretionary sanctions (section 110(m)), if we conducted the prerequisite rulemaking and if the State failed to correct the identified deficiencies within 18 months of such rulemaking.

(8) *Comment:* Several commenters stated the geographic scope of the highway sanctions should be the entire state and the offset sanctions the Billings/Laurel area. (See YVCC letter, document # IV.A-30.) One commenter stated the geographic scope of the sanctions should be just the Laurel area. (See Conoco letter, document # IV.A-25).

Response: As indicated above, at this time, we are deciding not to apply sanctions anywhere in the State of Montana. Two commenters felt we should apply 2-to-1 emission offset sanctions in the Billings area. For the most part, 2-to-1 emissions offset sanctions can only be applied in areas designated as nonattainment. If we had elected to apply sanctions, since Billings is not a designated nonattainment area, we could not apply 2-to-1 emission offset sanctions there. See our January 11, 1994 final rulemaking action on discretionary sanctions, 59 FR 1479-1480, for a more detailed discussion on the geographic scope of sanctions.

(9) *Comment:* Several commenters stated sanctions would disproportionately affect Laurel and Cenex. (See Cenex letter, document # IV.A-26; MSCC letter, document # IV.A-20, comment # 5; MSCC letter, document # IV.A-19, comment # 114.) One commenter stated it is unfair to apply sanctions in Laurel because Laurel is a nonattainment area only in name; ambient data show the area is attaining the standard; Laurel is being punished for issues that are occurring in Billings and to which Laurel does not contribute. (See MSCC letter, document # IV.A-20, comment # 5A, 5C; MSCC letter, document # IV.A-19, comment # 114.) This same commenter stated that once an area is designated nonattainment it is impossible to be redesignated to attainment. (See MSCC letter, document # IV.A-20, comment # 5B.) Finally, this commenter stated that Laurel's nonattainment designation occurred many years ago and was not the result of the issues identified in the current SIP. (See MSCC letter, document

IV.A-20, document 5D; MSCC letter, document # IV.A-19, comment # 114.) This commenter further stated that the CAA 1990 requirement that designations be reaffirmed is unreasonable in this case. (See MSCC letter, document # IV.A-19, comment # 65.) This commenter stated that the area is more controlled now than at the time of Laurel's nonattainment designation and that it is hard to believe that not approving the SIP will jeopardize the NAAQS. (See MSCC letter, document # IV.A-20, comment # 5G.)

Response: As indicated above, at this time, we are deciding not to apply sanctions in Montana. If we had decided to apply sanctions just in the nonattainment area impacted by the Billings/Laurel SO₂ SIP, then the commenters are correct that Laurel and Cenex would have been impacted more by the sanctions than the rest of the area and sources. We do not agree with the commenter who stated that applying sanctions in Laurel would be punishing Laurel for a Billings issue. Our proposed disapproval of the SIP, because of the lack of flare provisions, also pertains to Laurel; flare issues pertain in Laurel and Billings.

One commenter questions whether Laurel should be designated as a nonattainment area (presumably because the designation of Laurel impacts the sanctions that could apply). The fact is that Laurel is a designated nonattainment area. We cannot redesignate the area until the State submits a redesignation request and maintenance plan which we can approve. Contrary to the commenter's suggestion, redesignations of SO₂ areas from nonattainment to attainment have occurred across the country. See, for example, 66 FR 14087 (March 9, 2001) and 65 FR 35577 (June 5, 2000). Prior to the Clean Air Act Amendments of 1990 (1990 CAAA), Laurel had an approved Part D plan but was still designated as nonattainment because the State had not submitted a redesignation request. Because Laurel was designated as nonattainment prior to enactment of the 1990 CAAA, upon enactment of the 1990 CAAA, Laurel remained a nonattainment area by operation of law. See section 107(d)(1)(C)(i) of the Act. Although one of the commenters states these requirements are unreasonable, we are required to implement the law. Since the 1990 CAAA, we determined that the SIP for the Billings/Laurel area was not adequate to protect the NAAQS. We do not believe we could approve a redesignation request and maintenance plan for Laurel until we determine that

the SIP for Laurel is adequate to protect the NAAQS, *i.e.*, until we approve the SIP submitted in response to the SIP Call.

One commenter wonders how non-approval of the SIP will jeopardize attainment since the area is more controlled now than when Laurel was initially designated as nonattainment. What the commenter seems to be asserting is that there is no need for a SIP. We disagree. We found the SIP inadequate under the Act, and, thus, it is incumbent on the State to submit an adequate SIP. Whether emissions in the area have gone down since we issued our 1993 letter or since the State adopted the stipulations for the SIP is irrelevant. Our concern under the Act must be whether the federally approved and enforceable SIP meets the requirements of the Act. Congress gave EPA the ultimate approval role for SIPs.

(10) *Comment:* One commenter stated that damage done by sanctions can not be undone. Because of offset sanctions, sources may avoid projects, shut down or spend more money than is necessary (leaving sources at a competitive disadvantage). Withholding highway funds could cause a safety problem for people. Also, once a highway budget is lost it is irretrievable. (See MSCC letter, document # IV.A-20, comment # 5F; MSCC letter, document # IV.A-19, comment # 113.)

Response: It is difficult to respond to comments which speculate about what might happen in the future. At this point, we are deciding not to apply sanctions. However, as indicated above, Congress intended sanctions to be used to assure that SIPs and SIP revisions would be developed on time, would provide adequate controls, and would otherwise satisfy Act planning requirements. Applying sanctions may have adverse effects. However, highway funds used for safety and environmental projects cannot be withheld for sanctions applied under section 179 or 110(m) of the Act.

(11) *Comment:* One commenter stated that sanctions should not be imposed because of a dispute between the State and Federal governments regarding an interpretation of a regulation. The commenter stated sanctions should not be imposed until the differences are resolved or adjudicated. (See MSCC letter, document # IV.A-20, comment # 4D, 4E; MSCC letter, document # IV.A-19, comment # 114.)

Response: We do not agree that sanctions should not be applied merely because of a dispute between the State and EPA regarding an interpretation of a regulation. In this particular case, we told the State in 1996 that we could not

approve the plan based on its interpretation of the stack height regulations. In 1998, the State submitted revisions to the plan knowing that the plan would be disapproved in part.

C. Flares

We proposed to disapprove the SIP as it applies to the attainment demonstration because of the lack of enforceable emission limitations for flares. We also proposed to disapprove provisions of the SIP that allowed certain gas streams at Cenex and ExxonMobil to be burned in the flare.

Summary of Comments and Response

Eleven commenters submitted comments pertaining to our proposal impacting flares. Seven of the commenters opposed and three supported our proposed disapproval of the attainment demonstration for lack of flare limitations. Two commenters opposed and two supported our proposed disapproval of provisions that allowed certain gas streams at Cenex and ExxonMobil to be burned in the flare. One commenter noted that agencies across the country have struggled with flares.

We have considered the comments received and still believe it is appropriate to disapprove the SIP as it applies to the attainment demonstration for lack of flare emission limitations.

The following is a summary of the comments received and our response to the comments:

(1) *Comment:* Several commenters (State letter, document # IV.A-23, comment # 3; YVCC letter, document # IV.A-29; Zaidlicz letter, document # IV.A-30) stated that the attainment demonstration is incomplete without flare limitations. Several commenters (State letter, document # IV.A-23, comment # 3; Conoco letter, document # IV.A-28) stated that the State's current flare provisions should be or have been sufficient. Other commenters (Conoco letter, document # IV.A-24; ExxonMobil letter, document # IV.A-28; MSCC letter, document # IV.A-19, comment #s 55, 76; MSCC letter, IV.A-20, comment # 7; Cenex letter, document # IV.A-26) stated we are mistaken in disapproving the attainment demonstration because the SIP lacks flare emission limitations and that we did not provide a valid reason for the proposed disapproval or why flares must have specific emission limitations. One commenter (MSCC letter, IV.A-20, comment #s 7B, C and D) stated that our disapproval of the attainment demonstration for lack of enforceable flare limitations even though flares are modeled is in error and that the

modeling of the flares provides a small degree of conservatism in the modeling and is an exercise of state discretion for determining the background SO₂ concentrations.

Response: We continue to believe that the SIP as it applies to the attainment demonstration is not approvable since it does not have enforceable limitations on flares. Additionally, we believe our rationale in the proposed approval (64 FR 40801 of our July 28, 1999 proposal) provided a simple and logical reason why the attainment demonstration should not be approved and why flares must have emission limitations. We have not reviewed the State's current flare provisions because they were never submitted to us for review or approval. However, we did review and comment on earlier versions of the flare provisions that the State had adopted.

In the following documents we provided comments on earlier flare provisions adopted by the State: December 15, 1994 letter from Douglas M. Skie, Chief, Air Programs Branch, EPA, to Jeffrey Chaffee, Acting Administrator, Air Quality Division, Montana Department of Health and Environmental Sciences (*see* document # IV.C-17); April 19, 1995 letter from Douglas M. Skie, Chief, Air Programs Branch, EPA, to Jeffrey Chaffee, Acting Administrator, Air Quality Division, Montana Department of Health and Environmental Sciences (*see* document # IV.C-18); June 3, 1997 letter from Jack W. McGraw, Acting Regional Administrator, EPA, to Mark Simonich, Director, Montana Department of Environmental Quality (*see* document # II.C-8); March 6, 1998 letter from Richard R. Long, Director, Air Program, EPA to Mark Simonich, Director, Montana Department of Environmental Quality (*see* document # II.C-10); and June 5, 1998 letter from Richard R. Long, Director, Air Program, EPA to Mark Simonich, Director, Montana Department of Environmental Quality (*see* document # II.E-7).

(2) *Comment:* Several commenters (Conoco letter, document # IV.A-24; American Petroleum Institute letter, document # IV.A-25; Cenex letter, document # IV.A-26; ExxonMobil letter, document # IV.A-28; MSCC letter, document # IV.A-19, comment # 55) stated that neither our regulations (40 CFR 51.281) nor the Act (section 110(a)(2)(A)) require that all control strategies in the SIP must be federally enforceable; State enforceability is sufficient. One commenter (MSCC letter, document # IV.A-20, comment # 7A) stated our proposed disapproval of the attainment demonstration is in error

since flare limitations exist on the State level.

Response: We do not agree that some of the control strategies adopted by the State do not need to be submitted to us and made part of the federally approved SIP. The general air quality management philosophy is that we establish NAAQS; States develop, and submit to us, control programs to attain and maintain these NAAQS. We either approve or disapprove these control programs and to the extent they are approved they are legally enforceable by us and citizens under the Act.¹¹

This philosophy is reiterated in the General Preamble, 57 FR 13497 (April 16, 1992)¹² (document # II.A-15), at page 13567, right column: "[i]t is important to note that projections of the effect of planned air pollution control measures contained in the SIP's are not merely assumed but are enforced by regulations adopted as part of the SIP. Therefore, if the control measures are not implemented sufficiently to result in required reductions, the State or local agency, or EPA, can take action to enforce implementation of the regulations. This provides a means of achieving, at least in part, the goal of attainment and further progress required in the Act." The control measures cannot be enforced by citizens and us if the State does not submit them as a SIP revision and we do not make them federally enforceable by our approval of the SIP.

Further, our discussion on the lack of flare emission limitations in our TSD and proposed rulemaking¹³ provides citations in 40 CFR part 51 to support the philosophy that all the control measures necessary for attainment and maintenance of the NAAQS must be included as part of the SIP.

The commenters point to 40 CFR 51.281 and section 110(a)(2)(A) of the Act as not requiring that every control strategy (relied on for attainment and maintenance of the NAAQS) be included as part of the federally approved SIP. The commenters state that State enforceability of certain control strategies satisfies these provisions. We believe the commenters are reading the Act and CFR incorrectly.

Section 110(a)(2)(A) of the Act says "[e]ach implementation plan submitted by the State under this Act shall be adopted by the State after reasonable

¹¹ See our TSD (document # III.B-1, at p. 5) and 64 FR 40791 at p. 40805 (document # III.A-2).

¹² The General Preamble, a document we issued following the 1990 Clean Air Act Amendments, describes our preliminary views on how we should interpret various provisions of title I of the Act.

¹³ See our TSD (document # III.B-1, at p. 37) and 64 FR 40791 at p. 40801 (document # III.A-2).

notice and public hearing. Each such plan shall—(A) include enforceable emission limitations and other control measures, means, or techniques * * *, as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of the Act.” There are several important ideas in this section that the commenters are ignoring. First, the section presumes that the plan is being *submitted* to us. The State enforceable provisions for flares, which the commenters say meet section 110(a)(2)(A), have *not* been submitted to us. Second, the plan that is submitted to us shall contain enforceable emission limitations to meet the applicable requirements of the Act, *e.g.*, show attainment and maintenance of the NAAQS. If a plan is lacking in certain control measures necessary for attainment, then it does not meet section 110(a)(2)(A) of the Act. Finally, the definition of “applicable implementation plan,” in section 302(q) of the Act, supports the notion that the implementation plan is what is submitted and approved by us. The implementation plan, under the Act, does not consist of measures that are only enforceable by the State and were not included in the submission to EPA.

Forty CFR 51.281 indicates that any emission limitations necessary for attainment and maintenance of the NAAQS must be adopted as rules and regulations and be enforceable by the State. The commenters rely on the first sentence of this section as evidence that control measures for attainment and maintenance need only be State enforceable and do not need to be submitted as part of the plan. However, the commenters are ignoring the second sentence of this section which says that “[c]opies of all such rules and regulations must be submitted with the plan.” The definition of “plan,” in 40 CFR 51.100(j), supports the notion that the implementation plan is what is submitted and approved by us. Forty CFR 51.281 and 40 CFR 51.100(j), read together, support the theory that all control measures relied on for attainment and maintenance of the NAAQS *must* be submitted as part of the plan. The implementation plan, under 40 CFR part 51, does not consist of unsubmitted measures that are only State-enforceable.

(3) *Comment* Several commenters (Conoco letter, document # IV.A–24; Cenex letter, document # IV.A–26; ExxonMobil letter, document # IV.A–28) stated that since our modeling guidance in 40 CFR part 52, appendix W, footnote (e) of section 9.1.2 does not require modeling of malfunctions (these are not

normal operations and not considered in determining allowable operations when modeling), emissions from flares during operations that are not normal (startup, shutdown, malfunctions and process upsets) should not be considered in determining the allowable emissions when modeling relative to the SIP.

Response: We agree with the commenters that our modeling guideline in 40 CFR part 52, appendix W, section 9.1.2, footnote (e) indicates that malfunctions are not modeled to determine the allowable limitation. We do not agree with commenters that our modeling guideline explicitly or implicitly does not require the modeling of emissions that result from operations that are not normal and routine or that operation of flares at the Billings/Laurel sources is not normal and routine, at least in part. The 150 lbs/3-hr flare emission limitation used in the attainment modeling does not reflect malfunction emissions, but rather emissions from routine operations at the refineries. Bob Raisch’s September 28, 1995 letter to us (document # II.B–18, first page of the enclosure to the letter) says “[t]he Department and each of the refineries estimated that amount of sulfur dioxide which is emitted from each flare during routine operations of the refinery.” Tim Schug’s January 22, 1999 letter to us (document # IV.C–12) indicates that a flare is a safety device that is used to manage combustible gases. Mr. Schug also indicates that “[i]n addition, small and continuous quantities of gases may routinely be directed to the flare.” Conoco’s comments on our proposal (document # IV.A–24) says “[r]outine emissions are expected to be less than 150 lbs SO₂ per 3-hour period * * *.” Therefore, it appears that the State and industry agree that emissions from the flares occur on a routine basis.

Thus, for purposes of this action, we need not reach the issue of whether non-routine startups, shutdowns, etc. should be modeled. In this case, the State modeled routine flare emissions assuming they would be limited to 150 lbs of SO₂ per 3-hour period, but did not include corresponding emission limits in the SIP submitted to us. This is the basis for our disapproval of the attainment demonstration for lack of flare emission limitations.

(4) *Comment* One commenter (Conoco letter, document # IV. A–24) referred to our concern that if we approved the SIP without making the State-only requirements federally enforceable, the sources could direct emissions from other process units to the flares to avoid violating any emission limitation or

other requirement. Further, we indicated that it did not appear that sources could be penalized through the SIP if such circumvention occurred. Conoco stated that these concerns are misplaced since Montana Regulations and the “Other Minor Sources” provision of the stipulations prevent this. Two other commenters (YVCC letter, document # IV.A–29; Zaidlicz letter, document # IV.A–30) stated flares could be used to circumvent other emission limitations.

Response: In our proposed action we indicated that if there were no emission limitations on flares it appeared that sources could direct emissions from other process units to the flare to avoid violating an emission limitation or other requirement. We indicated that it did not appear that sources could be penalized through the SIP if such a circumvention occurred. One commenter stated our concern was misplaced because of existing State regulations and the “Other Minor Sources” provisions in the SIP.

The “Other Minor Sources” provision in the SIP does not alleviate our concern because this provision addresses the emissions of sulfur bearing gases from other minor sources which *are not* otherwise subject to the SIP. Our concern assumes that emissions being diverted to the flare *are* otherwise subject to the SIP.

We assume that the commenter is referring to the State’s circumvention regulation as “existing State regulations.” The State’s circumvention regulation, approved into the SIP, states, “(1) No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant which would otherwise violate an air pollution control regulation.” Based on the title, it seems that the State’s circumvention regulation should address the concern we raised. However, after further review of the regulation we are not convinced that it could prevent sources from directing emissions from other process units to the flare to avoid violating an emissions limitation or other requirement.

Therefore, we continue to believe that establishing emission limitations on flares or some other enforceable mechanism is necessary to prevent sources from redirecting emissions to the flare in order to avoid violating emission limitations elsewhere.

(5) *Comment:* Several commenters (Conoco letter, document # IV.A–24; American Petroleum Institute letter, document # IV.A–25; Cenex letter,

document # IV.A-26; ExxonMobil letter, document # IV.A-28; MSCC letter, document # IV.A-19, comment #'s, 55, 75, 76, 118; MSCC letter, document # IV.A-20, comment # 7F; Goetz letter, document # IV.A-18, exhibit C) stated that other SIPs do not limit emissions from flares, that this SIP should not either, and that our action here is arbitrary. One commenter (MSCC letter, document # IV.A-20, comment #'s 7E, 7F) stated our proposal to disapprove the attainment demonstration was in error because flare limitations are not required federally and flares are not stacks. One commenter (Goetz letter, document # IV.A-18, exhibit C) found that the Utah, Washington and Wyoming SIPs do not require limitations on flares. Finally, one commenter (MSCC letter, document # IV.A-19, comment #'s 77, 118) stated that if we determine that the Billings SIP is inadequate because of the lack of flare limitations we need to determine that all SIPs are inadequate and do a national rulemaking.

Response: We do not agree that just because other SIPs may not have limitations on flares that the Billings/Laurel SO₂ SIP should not either. We believe that when an area has been determined to not be attaining the NAAQS, it is reasonable to apply extra measures to assure that the area attains and maintains the NAAQS. Since the State identified a concern with flare emissions and included the emissions in the attainment demonstration, we believe it is reasonable to make restrictions on flares federally enforceable. With respect to Utah, the commenters are correct that the federally approved PM-10 SIP for Salt Lake and Utah Counties does not contain SO₂ flare emission limits.¹⁴ We have identified this as an issue with the Utah PM-10 SIP and are working with the State to address the issue. Wyoming does not contain any SO₂ nonattainment areas, and the one PM-10 nonattainment area, Sheridan, does not contain any refineries. Washington does not have any SO₂ nonattainment areas. However, the Tacoma PM-10 nonattainment area in Washington does contain a refinery (see document #IV.C-14). EPA found in our October 12, 1994

(59 FR 51506) and October 25, 1995 (60 FR 54599) approvals of the PM-10 SIP for Tacoma that it is unlikely that precursors of PM-10 contribute significantly to PM-10 levels which exceed the NAAQS in that area. PM-10 precursor emissions (SO₂) were not controlled as part of this SIP.

Therefore, although commenters cite specific examples of states near Montana that do not limit SO₂ emissions from flares, we believe the situation in the Billings/Laurel area is sufficiently different to warrant the establishment of SO₂ limitations on flares.

For the same reasons stated above, we do not agree that we need to do a national rulemaking to require that all SIPs contain limitations on flares.

Finally, we do not agree that flare limitations are not required on a federal level. What is required on a federal level are emission controls that will assure attainment of the NAAQS. In this particular case, since the attainment demonstration assumes flare emissions were controlled we believe the SIP should contain federally enforceable emission limitations on flares. With respect to the comment that flares are not stacks, the commenter is correct in that our definition of stack in 40 CFR 51.100(ff) indicates that flares are not included. However, just because an emission point is not a stack by definition does not mean that the emission point should not be controlled. There are numerous examples of fugitive emissions, which are not emitted from stacks, being controlled in SIPs. *See, for example,* the East Helena Lead SIP which was approved at 66 FR 32760 (June 18, 2001); the SIP establishes emission limits and work practices for loading, unloading and movement of material containing lead, for emissions from buildings, and for emissions from roads and parking lots on and off the facility property.

(6) *Comment:* Several commenters (Conoco letter, document # IV.A-24; Cenex letter, document # IV.A-26; MSCC letter, document # IV.A-20, comment # 7G) stated that instead of disapproving the SIP, flare emissions should be removed from the attainment demonstration. One commenter (MSCC letter, document # IV.A-20, comment # 7G) stated that flare emissions should be included with other background sources.

Response: We do not agree that the appropriate way to address flare emissions is to "sweep them under the carpet" or incorporate them with background sources. As mentioned above, it is widely accepted that routine emissions occur at flares. The State was

concerned enough about these emissions that it chose to regulate them at the State level and considered them in the attainment demonstration. We believe that turning our back on an issue simply because it is difficult to address is not appropriate under the Act. The Act presumes that states will develop an appropriate mix of controls to protect air quality. The State identified the flares as an attainment issue. If the flares are not limited by enforceable limitations, attainment will not be assured.

(7) *Comment:* Several commenters (American Petroleum Institute letter, document # IV.A-25; Cenex letter, document # IV.A-26; Montana Petroleum Association letter, document # IV.A-27; MSCC letter, document # IV.A-19, comment #'s 55, 76) stated that flares are primarily emergency relief devices and limiting flares puts a refiner in an untenable position of having to choose between possible limitation violations or endangering the plant or its workers. These commenters also stated that flare use is essential and no reasonable alternative exists.

Response: Our proposed action is not intended to jeopardize the safety of refineries, their workers, or neighbors. Our SIP policy¹⁵ has long recognized that imposing penalties for violations of emission limitations for sudden and unavoidable malfunctions caused by circumstances entirely beyond the control of the owner or operator may not be appropriate. States and EPA have the ability to exercise enforcement discretion to refrain from taking enforcement action in these circumstances.

However, we are not convinced that flare use is always essential or that no reasonable alternative exists. We know that other refineries, either because of enforcement action or a company decision, have reduced flaring through better operation and maintenance procedures throughout the refinery and/or by installing flare gas recovery systems to compress and recycle to the gas plant(s), gases that had previously been sent or released to the flare. *See* EPA's Enforcement Alert entitled "Frequent, Routine Flaring May Cause Excessive, Uncontrolled Sulfur Dioxide Releases," Volume 3, Number 9, EPA 300-N-00-0014 (revised), October 2000 (document # IV.C-72).

(8) *Comment:* Several commenters (American Petroleum Institute letter,

¹⁴ In PM-10 nonattainment areas, the control requirements applicable to major stationary sources of PM-10 also apply to major stationary sources of PM-10 precursors unless we determine such sources do not contribute significantly to PM-10 levels in excess of the NAAQS in that area (see section 189(e) of the Act). The General Preamble (document # II.A-15) contains guidance addressing how EPA intends to implement section 189(e) of the Act (see 57 FR 13539-13540 and 13541-13542). In the Utah PM-10 SIP, SO₂ emissions at sources were controlled because SO₂ is a precursor of PM-10.

¹⁵ See document # IV.C-13, September 20, 1999 memorandum entitled "State Implementation Plans: Policy Regarding Excess Emissions During Malfunctions, Startup, and Shutdown." This policy updates previous EPA policy, dating back to 1982, on this issue.

document # IV.A-25; Goetz letter, document # IV.A-18, exhibit C; MSCC letter, document # IV.A-19, comment #s 55, 75) stated that since measuring flow and concentration of hydrogen sulfide of the gas stream flowing to the emergency flare is very difficult, the flares should not be controlled.

Response: We do not agree. First, we are not convinced that measuring flow and content of the flare is impossible. We are evaluating potential methods for measuring flare flow and content in preparation of our FIP. Second, other means are available to determine SO₂ emissions from flares apart from measuring flare flow and content. To meet the "State-only" requirements for flares it appears that the refineries and MSCC are calculating SO₂ emissions based on good engineering judgement.

(9) *Comment:* Several commenters (American Petroleum Institute letter, document # IV.A-25; Cenex letter, document # IV.A-26; ExxonMobil letter, document # IV.A-28; Montana Petroleum Association letter, document # IV.A-27; Conoco letter, document # IV.A-28) stated our action is precedent-setting and more data should be collected to justify the costs and the benefits of imposing emergency flare limitations.

Response: At this point we are not imposing flare limitations; we are disapproving the attainment demonstration for lack of flare emission limitations.

(10) *Comment:* Several commenters (Cenex letter, document # IV.A-26; American Petroleum Institute letter, document # IV.A-25; MSCC letter, document # IV.A-19, comment # 75; Conoco letter, document # IV.A-28) stated the emissions from flares are inconsequential based on the potential to emit levels in the SIP modeling and have little ambient impact. Two commenters (YVCC letter, document # IV.A-29; Zaidlicz letter, document # IV.A-30) stated SO₂ emissions from flaring are significant. Other commenters (ExxonMobil letter, document # IV.A-28; American Petroleum Institute letter, document # IV.A-25; Conoco letter, document # IV.A-28) stated that SO₂ emissions and ambient concentrations are at an all-time low and the imposition of extraordinary flare limitations is unnecessary.

Response: We do not agree that flare emissions are inconsequential and have little ambient impact.

The State modeled emissions from flares at 150 lbs of SO₂/3-hours. This 3-hour modeled value equates to 219 tons of SO₂/year for each source (((150 lbs SO₂/3-hrs) * (8 3-hr periods/day) * (365

days/year))/(2000 lbs/ton)). A major source in a nonattainment area, under 40 CFR section 51.165, is a source that emits 100 tons per year or more of a pollutant subject to regulation under the Act. Under 40 CFR section 51.166, a major source in an attainment area, is a source that emits 100 tons per year or more of a pollutant subject to regulation under the Act if the source is a listed source category (refineries are a listed source category) and 250 tons per year or more of a pollutant subject to regulation under the Act if it is not a listed source category. Under the Title V operating permit regulations, 40 CFR section 70.2, a major source is a source that emits or has the potential to emit 100 tons per year or more of any pollutant. Therefore, based on our regulations, the modeled emissions from flares at each source, in and of themselves, are considered major. Also, as part of the attainment demonstration, the State assumed each of the refineries and MSCC had one flare; the cumulative flare emissions from all sources is 876 tons of SO₂/year. We do not think flare emissions are inconsequential.

Also, there is the real possibility that flares emit more than the modeled SO₂ level. Following its flare velocity and energy performance test, Conoco estimated flare emissions from the flare header at its Billings refinery at approximately 91 lbs of SO₂/hour (see document # IV.C-2). This is equivalent to 399 tons of SO₂/year.

Regarding the ambient impact of flare emissions, Bob Raisch's September 28, 1995 letter to us (document # II.B-18, first page of the enclosure to the letter) indicates that "[t]he inclusion of routine flare emissions actually required lowering of the emission limitations at other sources within the refinery." Based on this statement, we believe that flares do have significant ambient impact.

(11) *Comment:* One commenter (Cenex letter, document # IV.A-26) stated that over-reliance on or misapplication of three of our policy memoranda pertaining to excess emissions during startup and shutdown (i.e., the Bennett/Rasnic memos) has contributed to our concerns about the flare issue. Another commenter (MSCC letter, document # IV.A-19, comment #s 55, 75) stated we cannot apply startup, shutdown and malfunction policy to events that cannot reasonably be controlled; that flares must be used during maintenance activities and neither industry nor the State agree with our interpretation that startup, shutdown and malfunction are avoidable.

Response: We do not agree that our flare concerns stem from any over-reliance on or misapplication of our policy pertaining to excess emissions during startup, shutdown and malfunction. Our proposed disapproval of the SIP stems from the fact that gas streams are sent routinely to the flare to be burned, causing SO₂ emissions from flares. The attainment demonstration assumes that flares are limited yet the SIP submitted by the State does not contain limitations on flares. Therefore, we believe that attainment of the SO₂ NAAQS cannot be assured without limitations on flares.

Earlier versions of the State's SIP (those submitted prior to the July 1998 submittal) contained exemptions from the flare limitations for startups, shutdowns and malfunctions. We were concerned about the automatic exemptions to emission limitations because attainment and maintenance of the SO₂ NAAQS cannot be assured if exemptions to limitations are allowed. However, since the State removed the flare provisions from the SIP submitted to us, our concerns about startup, shutdown and malfunction were mooted. Note that our policy on excess emissions during startup, shutdown and malfunctions has been reaffirmed and reissued (document # IV.C-13).

(12) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment #75) stated we insisted that the State model flares and that we objected long after the State made clear it would not regulate flare emissions.

Response: We do not recall requiring the State to model flares. Our recollection is that we deferred to the State's judgement as to which flares should be explicitly modeled.

Also, EPA did not wait until the last minute to voice concerns about flares. Our initial comments on the flare provisions date back to December 1994. In the following documents we provided comments on the flare provisions: December 15, 1994 letter from Douglas M. Skie, Chief, Air Programs Branch, EPA, to Jeffrey Chaffee, Acting Administrator, Air Quality Division, Montana Department of Health and Environmental Sciences (see document # IV.C-17); April 19, 1995 letter from Douglas M. Skie, Chief, Air Programs Branch, EPA, to Jeffrey Chaffee, Administrator, Air Quality Division, Montana Department of Health and Environmental Sciences (see document # IV.C-18); June 3, 1997 letter from Jack W. McGraw, Acting Regional Administrator, EPA, to Mark Simonich, Director, Montana Department of Environmental Quality (see document # II.C-8); March 6, 1998 letter from

Richard R. Long, Director, Air Program, EPA to Mark Simonich, Director, Montana Department of Environmental Quality (see document # II.C-10); and June 5, 1998 letter from Richard R. Long, Director, Air Program, EPA to Mark Simonich, Director, Montana Department of Environmental Quality (see document # II.E-7).

(13) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment #75) stated the State carefully considered this and determined flares should not have federal limitations. Another commenter (McGarity letter, document # IV.B-1) stated that regulating emissions from flares is a technical area that state agencies around the country have struggled with. There are many valid technical difficulties associated with monitoring and controlling emissions from flares.

Response: We do not agree with the commenter that the State carefully considered the flare issue and determined flares should not have federal limitations. Based on the State's comments submitted in response to our proposed action (see document # IV.A-23), the commenter is not representing the State's position accurately.

In its comments to our proposed action (see document # IV.A-23, comment #3) the State said, "[t]he State agrees with EPA that the SIP is incomplete without enforceable emission limitations applicable to flares, and that such limitations should correspond to the emission rates used in the attainment demonstrations. However, after significant effort to address the issue, the State was unable to find a workable solution that would meet EPA's concerns."

We agree with the commenter that it appears that state agencies across the country have struggled with limiting emissions from refinery flares. However, as indicated in response to comment # 7, above, it appears that there have been recent strides in reducing and measuring emissions from flares.

(14) *Comment:* Two commenters (Cenex letter, document # IV.A-26; ExxonMobil letter, document # IV.A-28) stated that we should not disapprove the provisions that allow the burning of certain gas streams at Cenex and ExxonMobil in the flare because ExxonMobil and Cenex have a way to account for the emissions and under the State-only provisions the flare emissions are limited. Two commenters (YVCC letter, document # IV.A-29; Zaidlicz letter, document # IV.A-30) agree that sour water stripper emissions, if burned in the flare would be unregulated. These commenters stated that sour water stripper emissions should be sent to a

sulfur recovery unit instead of burned in a combustion unit.

Response: We proposed to disapprove provisions of the SIP that allow Cenex and ExxonMobil to burn sour water stripper emissions in the flare (in Cenex's exhibit sections 3(B)(2) and 4(D), only as they apply to flares, and in ExxonMobil's exhibit sections 3(E)(4) and 4(E), only as they apply to flares). Commenters stated we should not propose to disapprove these provisions since Cenex and ExxonMobil have methods to determine SO₂ emissions when these specific gas streams are burned in the flare. Although we understand that the SIP provides a means to determine SO₂ emissions when these gas streams are burned in the flare, the flare does not have any limitations that are enforceable under the federal SIP. Therefore, although the SO₂ emissions from the gas streams burned in the flare can be accounted for, the emissions are not limited. We believe that attainment of the SO₂ NAAQS can not be assured without enforceable limitations on the flare. We continue to believe that the provisions that allow the burning of sour water stripper emissions in Cenex and ExxonMobil's flare should be disapproved. However, in this action we cannot require that the sources be prohibited from burning sour water stripper emissions in a combustion unit or that they send the sour water stripper emissions to the sulfur recovery unit. We can only approve or disapprove the SIP as submitted by the State. Likewise, we cannot create any new requirements by our action on the SIP.

(15) *Comment:* Several commenters (Conoco letter, document # IV.A-24; Montana Petroleum Association letter, document # IV.A-27; ExxonMobil letter, document # IV.A-28) recommend that we conditionally approve, rather than disapprove, the SIP as it applies to flares, so that differences between us and the State can be worked out.

Response: We cannot conditionally approve the SIP with respect to flares unless the Governor of Montana commits to revise the SIP to address our concerns. See section 110(k)(4) of the Act. At this time we have not received such a commitment.

D. Dispersion Modeling

Based on our regulations and the characteristics of the Guideline models in appendix W, in our proposed rulemaking we found that the State of Montana used the appropriate computer models for analyzing the adequacy of the existing SIP and for setting emission limitations in the SIP revision to protect the SO₂ NAAQS. However, for several

reasons discussed in our proposed rulemaking and TSD we proposed to disapprove the attainment demonstration.

Summary of Comments and Response

Two commenters believed that the dispersion modeling that formed the basis for both the 1993 letter and the attainment demonstration was invalid. Two commenters also proposed using other models for attainment demonstration purposes. One commenter wanted us to acknowledge that there were two modeling attainment demonstrations; one for the Laurel area and one for the Billings area.

We have reviewed the comments received and still believe that Montana used the appropriate computer models for analyzing the adequacy of the existing SIP and for setting emission limitations in the SIP revision to protect the SO₂ NAAQS. We also acknowledge that there are two modeling demonstrations.

The following is a summary of the comments received and our response to the comments:

1. Validity of the Computer Models

(a) *Comment:* Two commenters (MSCC letter, document # IV.A-19, comment # 1; MSCC letter, document # IV.A-20, comment # 8.B; Goetz letter, document # IV.A-18, exhibit D, comment # III, p. 43) stated that computer modeling of SO₂ concentrations in the Billings/Laurel area was invalid because the models used by the State were screening models that over-predict concentrations. One of the commenters (MSCC letter, document # IV.A-20, comment # 3D) stated that EPA's conclusion that the existing SIP was inadequate was not based on the output of an Appendix A model.

Response: We do not agree with the commenters that only screening models were used. We also disagree with the assertion that EPA's SIP Call was not based on the output of an appendix A model. Appendix A to appendix W of part 51, Summaries of Preferred Air Quality Models, provides key features of refined air quality models preferred for specific regulatory applications. In the modeling studies for both the SIP Call and the attainment demonstration of the revised SIP, an analysis was performed using the modeling techniques and data bases recommended in our "Guideline on Air Quality Modeling (Revised)" ("EPA Guideline" or "Guideline"). Our Guideline is found in 40 CFR part 51, appendix W.

Two Guideline models were used. For "simple terrain" below the tops of stacks, the ISC2 model was used. ISC2,

a revised version of ISC, is a refined dispersion model that is preferred by EPA for a wide range of regulatory applications in simple terrain. See 40 CFR part 51, appendix W, section 4.1.a and appendix A to appendix W. ISC2 was listed in appendix A to the Guideline at the time the modeling analyses for the Billings/Laurel SIP were performed. (The current version of the Guideline lists ISC3 as a preferred model. See 40 CFR part 51, appendix A to appendix W, A.5. ISC3 is a more refined version of ISC2 and did not exist at the time of the modeling analyses for the Billings/Laurel area.) For terrain above the tops of stacks, COMPLEX I was used. This is a preferred screening technique, which is incorporated into ISC2 to evaluate concentrations of SO₂ in "complex terrain." See appendix W at section 5.2.1. A screening model may over-predict concentrations or may under-predict concentrations in comparison to concentrations that will actually occur in the future. COMPLEX I is not an appendix A model; however, as mentioned above, it is part of ISC2/ISC3 which is an appendix A model. Section 5.2.1.a of the Guideline indicates that for complex terrain any of the identified screening techniques (including COMPLEX I) may be used consistent with the needs, resources and available data of the user. Section 5.2.2.a of the Guideline indicates that when results of the screen analysis demonstrate a possible violation of the NAAQS or the controlling PSD increments, a more refined analysis may need to be conducted. For reasons discussed later in this section, a more refined model could not be applied for complex terrain in the Billings/Laurel area.

(b) *Comment:* One commenter, (MSCC letter, document # IV.A-19, comment # 6) stated that modeling is required under the Act only for reports to Congress and for prediction of the effect of emissions (presumably from new sources)—not for determination of SIP adequacy.

Response: The statutory provision that authorizes the use of modeling is not limited as the comment suggests. Section 110(a)(2)(K) of the Act requires that all SIPs must

provide for—

(i) the performance of such air quality modeling as the Administrator may prescribe for the purpose of predicting the effect on ambient air quality of any emissions of any air pollutant for which the Administrator has established a national ambient air quality standard, and

(ii) the submission, upon request of data related to such air quality modeling to the Administrator.

By its terms, this provision does not limit the use of modeling to making reports to Congress or permitting new sources. An essential function of air quality modeling is determination of SIP adequacy; so, too, is the establishment of emission limitations for existing sources as part of SIP development. Air quality modeling is, in fact, the only reliable means of determining the adequacy of an SO₂ SIP to protect the NAAQS, as will be explained in more detail below.

(c) *Comment:* Two commenters (MSCC letter, document # IV.A-19, comment # 107; Goetz letter, document # IV.A-18, exhibit D, comment #s III.C, p. 46, and III.F, p. 55) stated that the models should have been validated in the Billings/Laurel area.

Response: As EPA Guideline models, ISC2 and COMPLEX I have been standardized and validated through scientific study and application in many areas of the country. We authorize the direct use of Guideline models in regulatory applications such as SIP Calls and SIP development, "without a formal demonstration of applicability" in the local area, as long as the models are used as directed in appendix W. See 58 FR 38816, 38825 (July 20, 1993) (rulemaking by which our modeling guideline was codified as a regulatory requirement).

Validation of the model in the local area where it will be applied is not required for any of the standardized Guideline models or approved screening techniques. On-site validation is required only for alternative models, which are proposed by industry or states to be used in lieu of our Guideline model. Industry in the Billings/Laurel area and the State of Montana did not propose to collect the necessary air quality/meteorological data and perform the statistical performance evaluation and comparison of models that would be necessary to apply an alternative model for the Billings/Laurel area SIP revision. If an alternative model could be shown to perform better than ISC2/COMPLEX I, it would yield somewhat more accurate predictions of ambient impacts of SO₂ emissions, but such an effort would require a minimum of one year of on-site data gathering and considerable expense in research costs. The results of such a study could dictate the need for either higher or lower emission control limitations.

(d) *Comment:* Two commenters (MSCC letter, document # IV.A-20, comment #s 3.G and 3.S; Goetz letter, document # IV.A-18, exhibit D, comment # III.C, p. 46) stated that a prior agreement (1977 Stipulation) required the State to validate any

models used in the Billings/Laurel area, but that the State's 1984 studies showed that the model used was "invalid" for the area. The model determined to be invalid in 1984 is being used in the Billings/Laurel area now. The MDEQ has completed a "performance evaluation" of the model, not a validation study. One of the commenters (Goetz letter, document # IV.A-18, comment # III, p. 43) stated that, in response to a SIP Call based on defective modeling, the State developed a SIP based on defective modeling.

Response: Although our regulations do not require local validation of the models (see D.1.(c), above), MDEQ did perform an evaluation study in the Billings/Laurel area in 1994, using monitoring data to determine how accurately the models were performing. The evaluation study compared monitored data with modeled predictions for the same site. The evaluation study showed that model performance by ISC2 and COMPLEX I exceeded the levels of accuracy that we expected for this application and exceeded the performance of the models in similar tests elsewhere in the country. We do not believe the SIP Call and subsequently developed SIP are based on defective modeling. See also the response to Comment (g), below.

(e) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, comment # III.F, p. 56) stated that the 1994 evaluation study showed a failure to correlate modeled results and monitored data at 13 of 88 data points.

Response: The evaluation study showed that the model passed the statistical test at 75 data points, an acceptable level. Moreover, the study showed that the ISC2/COMPLEX I model predicted concentrations within plus or minus 20 percent of monitored levels. This is an unusually high correlation. We would expect errors in the highest estimated concentrations of plus or minus 10 to 40 percent to be typical for models of this type. See the Guideline on Air Quality Models, appendix W at 10.1.2. (We would not expect the study to predict concentrations within a "factor of two," the correlation which the commenter (Goetz letter, document # IV.A-18, exhibit D, comment # III.A, p. 44) attributed to us as an acceptable test of model performance.) Where the model failed the test, MDEQ attributed the discrepancy to an underestimate of actual SO₂ emissions at Cenex, not a flaw in the model itself.

(f) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, comment # III.F) also stated that ISC2

should have been evaluated in elevated terrain near the tops of stacks.

Response: Such an evaluation might be possible in an area that has a single source with only one or a few stacks. Because of the large number of stacks in Billings, all at different elevations, it would be impossible to establish a single value for "stack-top" elevation; such a study would not be meaningful. In any case, a local validation study is not required for a nationally validated model, such as ISC2/COMPLEX I.

(g) *Comment:* Two commenters (MSCC letter, document # IV.A-20, comment #; Goetz letter, document # IV.A-18, exhibit D, comment # III.C, p. 46) stated that MDEQ conducted a validation study of COMPLEX I in the Billings/Laurel area in 1983-84 and that the model failed miserably.

Response: Having reviewed the test report (see document # IV.A-17, exhibit # 88), we conclude that this was not a true validation study. A true validation study of COMPLEX I would involve placing large numbers of temporary monitors, called "sampling bags," on nearby hillsides and measuring the impacts of tracer gases emitted from individual stacks to determine which stacks are impacting which areas of elevated terrain. The data collected from the array of monitors would then be compared with modeled predictions based on real-time measured emissions from all the sources. We conducted studies of this kind, at great expense, to validate COMPLEX I and other dispersion models on a national level in the 1980's. Our validation studies showed that COMPLEX I did not perform as well as refined models, but performed well enough to serve as a screening tool for use in valley areas with multiple stacks, like the Billings/Laurel area.

The State study in 1983-84 used the existing limited monitoring network of seven monitors, few of which were located in elevated terrain. Tracer gases were not employed, and SO₂ emissions estimates for the Billings sources were unreliable at the time. The MDEQ's conclusion that COMPLEX I was not appropriate for modeling sources in Billings, as reported by one commenter (Goetz letter, document # IV.A-18, exhibit D, comment III.C, p. 46), was based on an inadequate evaluation and is not pertinent to the validity of the SIP Call or the attainment demonstration.

(h) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, comment III.E, pp. 51-54) cited case law to support his assertion that the computer models that were used to develop the SIP for the Billings/Laurel area required on-site validation.

Response: The cases cited in the comment are concerned with the less reliable models that predated the standardized Guideline models now incorporated into appendix W. For example, in *State of Ohio v. United States EPA*, 784 F.2d 224 (6th Cir. 1986), the Sixth Circuit held that EPA arbitrarily relied on the CRSTER computer model to set air pollution limitations for two electric utility plants on Lake Erie. The CRSTER model, now obsolete, was used to predict concentrations of SO₂ over the Lake under unusual meteorological and topographic conditions for which the model had not been validated. The facts in the *Ohio* case distinguish it from the Billings/Laurel area SO₂ SIP. Unlike the CRSTER model, the models used for the Billings/Laurel area have performed well in similar applications elsewhere in the country involving similar topographic features and similar meteorological characteristics. There are no unusual conditions in the Billings/Laurel area that would tend to undermine the reliability of ISC2 and COMPLEX I; on-site validation would be redundant.

(i) *Comment:* One commenter (MSCC letter, document # IV.A-20, comment # 8.A) stated that models must take into account the unique characteristics of the area where they are used and that modeling for the Billings/Laurel SIP failed to take the area's unique characteristics into account.

Response: Modeling for the SIP considered all Billings/Laurel area sources, stack parameters, building dimensions, emission rates, terrain elevations, and five years of continuous meteorological data collected at a representative location. We believe that this data set adequately accounts for the unique characteristics of the area.

(j) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, comment # III.E, p. 52) quoted the *State of Ohio* opinion as supporting the position that "EPA's own guidelines" recognize the importance of validating a model with monitored data from the local area.

Response: The "guidelines" referred to have been superseded. The court was referring to the 1978 version of the *EPA Guideline on Air Quality Models* 6, which did encourage local validation. This version was superseded in 1986 by an extensive revision of the Guideline. At that time, we conducted national validation studies on all existing computer models and replaced some of them with more reliable models. In 1993, the revised Guideline was incorporated directly into 40 CFR part

51 as appendix W. See 58 FR 38816 (July 20, 1993).

(k) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, comment # III.E, p. 53-54) also cited *Cincinnati Gas & Electric Co. v. Environmental Protection Agency*, 578 F.2d 660 (6th Cir. 1978) and *Columbus & Southern Ohio Elec. Co. v. Costle* (638 F.2d 910 (6th Cir. 1980) as indicating the necessity for on-site validation.

Response: In these cases, the Sixth Circuit remanded regulatory decisions to EPA when the agency's model (MAXT-24) used assumptions that were successfully challenged by local studies. The MAXT-24 model, again, has been superseded nationally and is not an EPA Guideline model. These cases do not discredit the application of nationally validated Guideline models, ISC2 and COMPLEX I, in the Billings/Laurel area.

2. Effect of "Contradictory" Monitoring Data

(a) *Comment:* Two commenters (MSCC letter, document # IV.A-19, comment # 1; MSCC letter, document # IV.A-20, comment #s 3.H and 3.I; Goetz letter, document # IV.A-18, exhibit D, comment #s III.A and III.B, pp. 44-45) stated that ambient air monitoring is more accurate than computer modeling and that monitoring data for the Billings/Laurel area do not support the models' predicted violations of the SO₂ NAAQS. One commenter (MSCC letter, document # IV.A-19, comment # 119) suggested that rather than issuing a SIP Call, we should have questioned how our models or the State's monitors could be so far wrong.

Response: Monitoring is not more accurate than computer modeling, except for determining ambient concentrations under real-time conditions at a discrete location. Monitoring is limited in time as well as space. Monitoring can only measure pollutant concentrations as they occur; it cannot predict future concentrations when emission levels and meteorological conditions may differ from present conditions. Computer modeling, on the other hand, can analyze all possible conditions to predict concentrations that may not have occurred yet but could occur in the future. As stated in the Guideline on Air Quality Models ("the Guideline") "[m]odeling is the preferred method for determining emission limitations for both new and existing sources. When a preferred model is available, model results alone (including background) are sufficient." 40 CFR part 51, appendix W, section 11.2.2. In the usual case, regulators may rely on the results of modeling and are not required to

consider measured data from local ambient monitoring.

(b) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, comment # III.A, p. 44) stated that monitoring data may reasonably be used as an acceptable technique to demonstrate that the air quality in a region is being protected; monitoring data are facts, while models use assumptions.

Response: The Guideline states, "Due to limitations in the spatial and temporal coverage of air quality measurements, monitoring data normally are not sufficient as the sole basis for demonstrating the adequacy of emission limits for existing sources." Forty CFR part 51, appendix W, section 1.0.b. The use of measured data in lieu of model predictions for SIP development is discouraged, because it is impossible to capture worst case conditions, for either emission levels or meteorology, with only a few monitors. Monitored data may be used in certain, limited circumstances and only if monitors are located at points of maximum concentration. *See id.* at section 11.2.2. Even then, locations of maximum concentration may not remain the same, but may change from year to year in response to changes in emission patterns and emission rates from existing sources, installation of new emission sources, and meteorological variability.

Even the most extensive monitoring network does not represent future concentrations of pollutants and thus cannot predict future violations. Modeling, on the other hand, can predict for all possible conditions and can show how well the emission limitations in the SIP will protect air quality under future conditions. Modeling assumes the maximum emission levels allowed under applicable emission limitations and assumes worst case meteorological conditions based on evidence of historical meteorological patterns. Models operate on assumptions, but the assumptions are based on facts. The models analyze the combined effects of the worst case values of the two variables (emission levels and meteorology) on ambient concentrations of pollutants at a multitude of "receptors" or sites, to predict maximum concentrations that may not have occurred yet, but could occur in the future.

In general, appendix W and the Guideline models have been adopted by rulemaking in accordance with the Administrative Procedures Act. They may not be challenged in this action; they could have been challenged only

by timely petition to the U.S. Court of Appeals for the D.C. Circuit in accordance with section 307(b) of the Act.

(c) *Comment:* Two commenters (MSCC letter, document # IV.A-19, comment # 1; Goetz letter, document # IV.A-18, exhibit D, comment # III, p. 43) stated that we ignored contradictory information from the monitors in favor of modeling when we issued the 1993 letter, thus invalidating the SIP Call.

Response: Historically, the seven monitors in the Billings/Laurel area (the State added a new monitor in 1999) have not measured violations of the SO₂ standards. We were aware of the non-supportive monitoring information at the time of the 1993 letter and discussed the data in our letter (*see* document # II.G-1). There we cited cases that approve EPA's reliance on modeling results in the face of apparently contrary monitoring data. In *Northern Plains Resource Council v. U.S. Environmental Protection Agency*, 645 F. 2d 1349 (9th Cir. 1981), for example, the court held that EPA's reliance on a model would be arbitrary and capricious only if "EPA ignored reliable data that so undermined EPA model projections that reliance on the model was irrational." *See* 645 F.2d at 1362.

In the SIP Call, we are not ignoring reliable data. We analyzed the available monitoring data, compared it with modeling results, and determined that it did not undermine the modeling results because the data had not been obtained at locations where the models predicted maximum concentrations of SO₂. In addition, real time monitoring data was available to the operators of some of the industry sources, who could have controlled their operations to avoid NAAQS exceedances when concentrations approached critical levels. For these reasons, we conclude that the lack of monitored violations do not undermine the models' projections.

(d) *Comment:* Two commenters (MSCC letter, document # IV.A-20, comment # 3.L; Goetz letter, document # IV.A-18, exhibit D, comment # III.B, p. 45) stated that, after the 1993 letter, the State moved its monitors to two of the locations where maximum concentrations were predicted, but that these monitors still have not registered violations of the SO₂ NAAQS.

Response: The monitors' failure to register violations is not surprising. Information provided by the sources and MDEQ indicates that actual emissions have declined since 1993. Modeling can analyze the combined effects of the highest allowable emission levels and worst-case meteorological events at numerous receptors to predict

violations. Any one monitor is unlikely to measure such synchronous events at a single location. When actual emission levels are lower than allowable emissions and, as in the Billings/Laurel area, are actually declining, monitored levels cannot be expected to match computer modeling results.

In *Northern Plains Resource Council*, the Ninth Circuit observed that monitored data can only be used to validate (or, by implication, invalidate) a model, if the data are collected under the same conditions for which the model is predicting ambient concentrations. *See* 645 F.2d at 1364. For the Billings/Laurel SIP Call, the model predicted violations at allowable levels, the maximum levels of emissions permitted under the existing SIP. It is unlikely that the sources in the area were emitting SO₂ at maximum allowable levels at the same time, during the most adverse meteorological conditions. Furthermore, even now, monitors are not located at many locations where the SIP Call modeling indicated NAAQS violations. Therefore, the monitoring data were not collected under the same conditions for which the models were predicting violations. Although these conditions may not have occurred yet, they can occur in the future. The SIP Call is necessary to protect the air quality in the Billings/Laurel area now and in the future.

The same point was made in another case, *PPG Industries, Inc. v. Costle*, 630 F.2d 462 (6th Cir. 1980). There the court agreed with EPA that "projected future violations may provide the basis for a nonattainment designation in currently clean areas." 630 F.2d at 464. Contrary monitoring data would not necessarily bar a nonattainment designation (or a SIP Call) based on modeling to protect the NAAQS in the future. The court held that "EPA need only offer record support of the accuracy of the model used." *Id.* at 467. Record support for the model used for the Billings/Laurel SIP Call is provided by the EPA Guideline, appendix W.

The *PPG Industries* court observed that if EPA based its action on predictions of future violations, "monitored data which merely show historical attainment of air quality standards" do not undermine the agency's decision. *Id.* at 468. The monitored data being offered to contradict modeling results must show that the modeled predictions are "unsupportable." *Id.* The commenters have not shown that the modeled predictions of violations in Billings/Laurel are unsupportable in comparison to monitoring data, for the reasons already cited—the lack of monitoring

data from locations of predicted maximum concentrations, the lack of monitoring data for impacts of maximum allowable emissions, the possibility that source operators changed operations when feedback from monitors indicated concentrations of SO₂ approaching the critical values, and the possibility that sources were emitting at reduced levels when the most adverse meteorological conditions occurred.

3. Usefulness of More Refined Models

(a) *Comment:* Two commenters (MSCC letter, document # IV.A-20, comment # 3.T, 3.U, and 8C; Goetz letter, document # IV.A-18, exhibit D, comment # 3.III.D.3, pp. 50-51) stated that a more refined computer model should have been used to develop the revised SIP for the Billings/Laurel area. They commented that the CTDMPPLUS model, in particular, is more accurate and predicts lower concentrations in areas of complex terrain than COMPLEX I. These commenters pointed out that CTDMPPLUS was used instead of COMPLEX I to develop the SO₂ SIP for East Helena, Montana.

Response: The Billings/Laurel area differs in several respects from the East Helena area. East Helena has only one significant source of SO₂, the Asarco lead smelter. The smelter has three tall stacks that emit most of the source's SO₂. In the Billings/Laurel area, there are seven industrial sources with a combined total of several dozen different stacks that must be modeled. CTDMPPLUS is limited in its ability to consider the impacts of more than a few emission points at the same time. The complexity involved in applying CTDMPPLUS to develop emission limitations and show attainment for so many different emission points would make the modeling analysis infeasible in the Billings/Laurel area. The complexity of the analysis would also preclude the use of variable emission limitations, which are now in place at some of the Billings/Laurel sources.

In addition, it is not possible to accurately apply CTDMPPLUS without a scientifically rigorous set of local meteorological data. Such data were available for East Helena, but not for the Billings/Laurel area. In East Helena, Asarco collected the appropriate on-site meteorological data for use in CTDMPPLUS modeling, including upper air measurements that were representative of conditions at plume height. The meteorological monitoring program was submitted to EPA and MDEQ in August 1992 for approval, and data collection began in May 1993. There are no similar

data available in the Billings area for application of CTDMPPLUS.

(b) *Comment:* Two commenters (MSCC letter, document # IV.A-19, comment # 54; MSCC letter, document # IV.A-20, document # 3V; Goetz letter, document # IV.A-18, exhibit D, comment # 3.III.D.3, p. 51; III.H, p.59) stated that MSCC proposed to gather the necessary meteorological data for the Billings/Laurel area. These commenters asserted that MDEQ's and EPA's failure to approve the proposal resulted in an arbitrary and capricious reliance on an outdated and over-predictive screening model (COMPLEX I).

Response: MSCC submitted a meteorological monitoring proposal in 1996, nearly three years after the modeling protocol for Billings/Laurel was developed and applied. Within a month of receiving MSCC's meteorological monitoring proposal from MDEQ, we reviewed it and responded that the proposal raised serious problems that could potentially invalidate any data collected. See letter from Kevin Golden, EPA, to John Coefield, MDEQ, September 26, 1996 (document # IV.C-28). To our knowledge, the company did not revise and re-submit its proposal.

(c) *Comment:* Two commenters (MSCC letter, document # IV.A-20, comment # 3.U; Goetz letter, document # IV.A-18, exhibit D, comment # 3.III.D.1 and 2, p. 48) stated that MSCC's consultant, Michael Machler, applied CTDMPPLUS in modeling tests at a site in Billings called Sacrifice Cliffs, located in elevated terrain. The results were 50-60 percent lower than those predicted by COMPLEX I and were in close agreement with monitoring data at the site, which indicated levels one-half to one-third the concentrations predicted by COMPLEX I.

Response: One of the commenters (Goetz letter, document # IV.A-18, exhibit D, comment # 3.III.D.3) admitted that meteorological data from East Helena were used for these modeling tests, because the specific data inputs needed for the model were not available for Billings. For CTDMPPLUS, unlike ISC2/COMPLEX I, predictions may be very sensitive to changes in upper air meteorological conditions, such as plume altitude, wind, and turbulence. These conditions must be measured locally to generate appropriate data inputs for the model. Using critical meteorological data from another site would invalidate any testing with CTDMPPLUS. In addition, a single monitor is insufficient to test any model. In areas such as Billings, where SO₂ concentration gradients are high (i.e., a significant change in

concentrations between receptor points), a dense monitoring network is necessary to adequately test a model.¹⁶

(d) *Comment:* One commenter (Conoco letter, document # IV.A-24, p.3) suggested that if we believe the SIP needs to be modeled again to address the modeling concerns EPA raised in the proposed rulemaking, we should consider using the CALPUFF model for future modeling. The commenter noted that CALPUFF was used in a study in West Virginia and Ohio to establish SO₂ controls within the study area. Another commenter (Goetz, document # IV.A-18, exhibit D, comment # 3.III.D.2) stated that MSCC's consultant, Michael Machler suggested that CALPUFF could be used in the Billings/Laurel area.

Response: We do not agree that CALPUFF should be used in the Billings/Laurel area. CALPUFF is a refined model that has been applied in complex terrain, but is not listed in the Guideline on Air Quality Models as a preferred model. It is not appropriate for regulatory applications, without further study. A similar model, MESOPUFF, is listed in appendix W for evaluating long-range transport issues (i.e., distances greater than 50 kilometers from the source). This model would not be considered appropriate, however, for evaluating near-source impacts, such as those evident in the Billings/Laurel area. Ohio and West Virginia used CALPUFF in a non-guideline application, following the protocol for an on-site modeling evaluation study provided in appendix W, section 3.2 ("Use of Alternative Models"). Alternative models are used on a case-by-case basis, when the EPA Regional Office believes such use is justified. We do not believe that application of CALPUFF is appropriate for the Billings/Laurel area at this time because its applicability has not been established (or even proposed).

(e) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, comment # 3.III.D.2, p. 49) indicated that Michael Machler, a consultant for MSCC, suggested that another model, AERMOD, be used in complex terrain.

Response: AERMOD is a new model that was not available when the SIP modeling protocol was developed in 1993. It has been discussed as a possible future replacement for ISC in the modeling Guideline. At this time, it has not been proposed for public review and comment. Reviewing all the facts, we conclude that MDEQ used the best

¹⁶ "Interim Procedures for Evaluating Air Quality Models (Revised)," EPA-450/4-84-023, September 1984, page 48 (document # IV.C-78).

available models to perform computer modeling for the Billings/Laurel SIP.

(f) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, comment # III.D, p. 47) stated that the modeling receptor on Sacrifice Cliffs is the most controlling and "drives the entire SIP," implying that modeling for complex terrain is the most critical element of the attainment demonstration and that a refined model should have been used for complex terrain. The commenter also stated that the most controlling receptors for MSCC, ExxonMobil and YELP are not on Sacrifice Cliffs, but in the hills to the south.

Response: There are in fact a number of different receptor sites where predicted concentrations of SO₂ in the pre-SIP revision scenarios exceeded the SO₂ NAAQS, both in complex terrain and in simple terrain. There is not one receptor site that is most controlling for the SIP. Many of the sources in the current SIP attainment demonstration have emission limitations based on predictions from ISC2, the refined EPA Guideline model. Other sources are controlled based on the approved screening model, COMPLEX I.

It is not clear what the commenter means by "controlling receptors" for various sources. As one might expect, the maximum incremental contributions from each source generally were predicted to occur close to that individual source. If a receptor location close to a specific source is predicted to exceed the NAAQS, the State would have the option of controlling emissions from the nearby source, or reducing emissions from the "background sources." Given the large number of facilities and emission points in the Billings/Laurel area, emission reductions were needed from a number of sources to show NAAQS attainment at all receptors.

(g) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, comment #'s III.D.3, p.50; III.H, p. 59) stated that using the less refined, less accurate COMPLEX I model for complex terrain for the SIP Call and SIP modeling is entirely arbitrary and capricious.

Response: COMPLEX I is a Guideline screening model, and its application is appropriate under our regulations as long as it is applied as directed by appendix W. COMPLEX I results may be used for all regulatory purposes unless a refined model is available, which was not the case for the Billings/Laurel area. If any approved model were to over-predict ambient concentrations and call for more restrictive emission limitations than a hypothetical, more refined

model, the modeled attainment demonstration would not be invalid. Courts have accepted that a certain level of over-prediction is allowed by the Act. In *Cleveland Electric Illuminating Co. v. EPA*, 572 F.2d 1150 (6th Cir. 1978) *cert. den.* 439 U.S. 910, 99 S.Ct. 278 (1978), for example, the Sixth Circuit approved EPA's reliance on an earlier computer model (RAM) for setting SO₂ limitations in a federal implementation plan, even though an industry study showed that the RAM model over-predicted violations and was contradicted by data from ambient monitoring.

The court observed:

SO₂ emissions have a direct impact upon the health and the lives of the population of Ohio—particularly its young people, its sick people, and its old people. If the RAM model did over-predict emission rates, such a conservative approach was apparently contemplated by Congress in requiring that EPA plans contain "emission limitations * * * necessary to insure attainment and maintenance" of national ambient air standards. 572 F.2d at 1164 (emphasis in original) (citing former 42 U.S.C. section 1857c-5(a)(2)(B), now revised and recodified at 42 U.S.C. 7410(a)(2)).

4. Inputs Used in Computer Models

(a) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, comment # III.G, pp. 57-58) stated that the use of non-local meteorological data "exacerbates the arbitrariness" of the computer modeling; the commenter objected to the use of data from Great Falls, Montana and from the Billings airport. Another commenter (MSCC letter, document # IV.A-20, comment # 8.D) also criticized us for using non-local data in the models.

Response: The computer modeling was not rendered unreliable by the use of non-local meteorological data. The modeling protocol that was used for the SIP revision was developed by the State in early 1993 and approved by us in August 1993. The protocol development process included substantial input and comments from the public, including industry groups and their constituents. No meteorological towers or vertical temperature soundings were available in the Billings/Laurel area to provide on-site data for upper air conditions, one component of the meteorological data needed for computer modeling. Instead, MDEQ used representative data from Great Falls, which, although 180 miles from Billings/Laurel, is similarly located on the high plains to the east of the Rocky Mountains. Thus MDEQ made use of available data for upper air conditions that were most representative of the conditions in the Billings/Laurel area. This approach is

approved by us. See 40 CFR part 51, appendix W, section 9.3.

MDEQ used temperature sounding data from Great Falls in the ISC2/COMPLEX I model to determine mixing height. For point source emissions with significant plume rise, such as the emissions from the Billings/Laurel sources, predicted concentrations from ISC2/COMPLEX I are relatively insensitive to changes in mixing height, and use of non-local meteorological data for this purpose would not make a significant difference. CTDMPLUS, by contrast, requires considerably more detailed upper air input information than ISC2. CTDMPLUS predictions may be very sensitive to changes in several conditions that can only be measured with a meteorological tower, such as plume altitude, wind, and turbulence. As we discussed in section V.D.3.a, above, specialized local meteorological data, which were unavailable for the Billings/Laurel area, would be needed to apply this model accurately.

(b) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, comment # III.G) stated that MDEQ improperly used data from the Billings airport to represent meteorological conditions in the lower atmosphere, that this location is not representative, because it is miles from both the sources and the critical receptors, and that data from the ambient monitors should have been used.

Response: We agree with MDEQ that the Billings airport data are representative of the area. Meteorological data from the ambient monitors at Lockwood Park, Brickyard Lane, Coburn Road and Laurel were not used because these monitors, located in the Yellowstone River Valley, are subject to variable ground-level conditions and are not representative of conditions affecting plume-height emissions as they are transported over the valley. The most representative data available were those obtained at the airport, which is located on a bluff above the valley, not subject to localized meteorological effects that occur along the valley floor.

(c) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 1; MSCC letter, document # IV.A-20, comment #'s 3M, 3O) stated that the SIP Call is flawed because the modeling used factually inaccurate assumptions for emission rates, stack parameters, and other factors.

Response: The SIP Call modeling used data inputs from an earlier emissions inventory that did contain some errors. These errors were corrected, and the corrected inputs were used in the modeling for SIP development. The SIP

Call modeling showed NAAQS violations at many sites at allowable emission levels. With corrected inputs, the modeling continued to predict NAAQS violations as much as two times over the national standard, thus supporting the SIP Call.

(d) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 108) stated that CEMS data now indicate an error in the assumed buoyancy flux for MSCC's main stack; the current modeling protocol contains an assumption which significantly underestimates the average rise in emissions. Any revised modeling should correct this assumption.

Response: We agree that future modeling should include all corrected data. In any modeling analysis, input data are based on the best available information at the time of the analysis. CEMS measurements of flow and temperature data provide the best estimates of stack parameters, and values based on CEMS data should be used in any future SIP modeling for Billings provided the CEMS data are accurate. Other data inputs have been corrected and added, as we discussed in the TSD for this rulemaking (document # III.B-1). Any future modeling in the Billings/Laurel area should incorporate all corrections. The SIP limitations are based on the best information available at the time the attainment demonstration was modeled, and the same will be true for any FIP limitations that are developed.

(e) *Comment:* MSCC's consultant, Michael Machler, stated that he had identified problems in the past with the way mixing heights are calculated in dispersion modeling. He stated that EPA has apparently corrected the problem and that ISC3, the newer version of the ISC2 model used for the Billings/Laurel SIP, now provides for more accurate calculations of mixing height. The modeling for the SIP used the older version, however, and has not been updated with respect to calculation of mixing heights. See Goetz letter, document # IV.A-18, exhibit E, page 1.

Response: In 1994, when the State performed the modeling for the attainment demonstration, MDEQ used the most accurate information and the best data base available at the time. ISC2 was then the preferred Guideline model. The newer ISC3 is comparatively more refined, but the correction in calculation of mixing heights would not make a significant difference in this case, because the Billings SIP modeling predictions (ISC2 and COMPLEXI) are relatively insensitive to changes in mixing height. We would not expect to see any significant changes in predicted

concentrations with the newer version of the model. In addition, dispersion models and data bases are continually being improved. The task of demonstrating attainment could never be completed if we or the State were compelled to update the analysis with each new refinement. For the FIP, we intend to continue to use ISC2 as the applicable model to fill in the gaps in the State's attainment demonstration created by our disapproval of the emission limitations for MSCC's 100-meter stack. Some source parameters have been corrected since the 1994 modeling analysis (see Response V.D.4.(d), above), but we intend to use the same meteorological data and modeling protocols the State used, so that the results will be comparable.

5. Two Modeling Demonstrations

(a) *Comment:* One commenter (State letter, document # IV.A-23) stated that we did not acknowledge that Montana submitted two separate attainment demonstrations for SO₂—one for the Billings area and one for the Laurel area. The commenter indicated that the Laurel area was modeled assuming the SIP prescribed emission limitations for Cenex and the pre-SIP potential emissions for the Billings sources. Therefore, the Laurel SIP demonstrates compliance with the NAAQS regardless of whether a revised SIP is approved and implemented in Billings. The Billings area was modeled assuming all sources in the Laurel and Billings areas are at SIP prescribed emission rates. Therefore, the Billings SIP depends upon approval of the Laurel SIP to demonstrate attainment. The commenter is requesting that we acknowledge the two attainment demonstrations in our final action and treat the two separately in that action.

Response: We agree with the commenter and acknowledge that there are two attainment demonstrations—one for the Billings area and one for the Laurel area. However, since the flare issue applies to sources in both Billings and in Laurel, we still believe the attainment demonstration for both areas should be disapproved for lack of enforceable flare emissions at the applicable sources. See flare discussion in section C, above.

E. EPA'S Partial Approval

In our July 28, 1999 action (64 FR 40791), we proposed to partially approve, conditionally approve and partially disapprove the Billings/Laurel SO₂ SIP.

Summary of Comments and Response

Two commenters objected because we did not fully approve the SIP. Among other things, the commenters stated that our proposed action intruded on State responsibility; raised Tenth Amendment concerns; and may violate the U.S. Constitution. One commenter submitted concerns regarding the conditional approval.

We have considered the comments received and still believe our proposal to partially approve and partially disapprove¹⁷ the Billings/Laurel SO₂ SIP was a correct action.

The following is a summary of the comments received and our response to the comments.

1. Intrusion Into State Regulatory Decision

(a) *Comment:* More than one commenter (Goetz letter, document #IV.A-18, exhibit D, pp.61-63; MSCC letter, document #IV.A-19, comment #16; MSCC letter, document #IV.A-20, comment #1.C) argued that EPA's proposed action intrudes on the primary responsibility of State and local governments to implement the Clean Air Act. In the view of one of the commenters (Goetz), it is the State's role to balance the interests of the seven emitting sources in the Billings/Laurel area, and EPA has no authority to disturb the balance the State has struck. The commenter claimed that EPA may not approve the emission limits for some of the sources while disapproving MSCC's emission limits. According to the commenter, if EPA is going to disapprove MSCC's limits, the whole SIP should be remanded to the State to allow the State to re-evaluate the entire mix of emission limits in the area. The commenter cited case law to support these comments, including case law that suggests that EPA may not interfere with the State's choices of emission limitations as long as the NAAQS are met. The commenter also cited case law from the 7th Circuit that suggests that EPA may not render a SIP more stringent through partial approval. In the commenter's view, EPA's proposed actions trigger serious Tenth Amendment concerns.

Response: We agree that the Act grants the States the primary

¹⁷ We had also proposed to conditionally approve the SIP. On May 4, 2000 the Governor of Montana submitted a SIP revision to fulfill the commitments on which the proposed conditional approval was based. Since the Governor has fulfilled his commitment, we believe it is not appropriate to finalize the conditional approval. Instead, we will complete notice-and-comment rulemaking on those portions of the July 29, 1998 submittal we proposed to conditionally approve on July 28, 1999 and all of the May 4, 2000 submittal.

responsibility to select emissions limitations for sources. However, the Act also reserves to us a fundamental responsibility to ensure that SIPs meet the requirements of the Act. *See, e.g., Union Electric Company v. EPA*, 96 S.Ct. 2518 (1976); sections 110(a)(2)(A), 110(k), and 110(l) of the Act. In the instant case, our responsibility is broader than the commenter portrays it—yes, we must ensure that the SIP shows attainment of the NAAQS, but we must also ensure that the SIP meets the requirements of section 123 of the Act and our stack height regulations in showing attainment. Congress understood that emissions controls and dispersion through tall stacks were two different means to attainment of the NAAQS. Congress chose to restrict the use of dispersion techniques to meet the NAAQS and directed us to adopt regulations to carry out this restriction. In this case, one reason we cannot fully approve the Billings/Laurel SIP is that MSCC's emission limits are based on stack height credit that is inconsistent with our stack height regulations.

Another reason we cannot fully approve the SIP is that the State's submission lacks enforceable emission limitations on flares. Without enforceable limitations on these sources of SO₂ emissions, the SIP fails to satisfy the requirement of section 110(a)(2)(A) of the Act that each plan include "enforceable emission limitations . . . as may be necessary or appropriate to meet the applicable requirements of this chapter." MDEQ established a State-only limitation on flare emissions. Modeling demonstrates that the limitation is necessary to protect the NAAQS. Unless an equivalent limitation is included in the federally enforceable SIP, the implementation plan for the Billings/Laurel area will be deficient, because it does not fully meet the planning requirements of section 110 of the Act nor adequately protect air quality in the area. For this reason as well, we are disapproving the attainment demonstration.

We do not believe that our action to disapprove the attainment demonstration and MSCC's emission limits is inconsistent with the cases the commenter has cited. Once we have determined that a portion of a SIP is inadequate, section 110(k)(3) of the Act grants us the authority to partially approve parts of a SIP that are consistent with the Act's requirements, while disapproving parts that are inconsistent with the Act's requirements. That is what we are doing here—we are disapproving MSCC's emission limits because they are inconsistent with the requirements of

the Act and our regulations. We are not obligated to uphold a State's balancing of emission limits among relevant sources where the State's emission limits for one of the sources do not meet the requirements of the Act. We have no authority to "remand" a SIP to a State, as the commenter suggests. Instead, we have approval and disapproval authorities provided by the Act, and once we disapprove all or part of a required SIP, we have an obligation to issue a FIP pursuant to section 110(c) of the Act.

It is only through a FIP that we would determine substitute emission limits for MSCC, as the 7th Circuit case cited by the commenter clearly states. Thus, as discussed further in section V.E.1.d, below, our disapproval of MSCC's emission limits does not render the SIP more stringent than the State intended.

We do not believe our partial disapproval triggers Tenth Amendment concerns. States are not coerced by the provisions of the Act directing them to adopt SIPs; the federal government may bear the regulatory burden in whole or in part, instead. *See, Commonwealth of Virginia v. Browner*, 80 F.3d 869, 882 (4th Cir. 1996). The State remains free to revise the SIP emission limits for MSCC and for other sources as well, but before we will approve such a revision, the revision must meet the requirements of the Act and our regulations, including stack height requirements. This issue is further discussed in section V.E.2, below.

(b) *Comment:* One commenter stated that the court in *Commonwealth of Virginia v. Environmental Protection Agency* (108 F.3d 1397 (D.C.Cir. 1997)) held that Section 110 of the Act did not confer upon EPA the authority to condition our approval of the plan of any state on the state's adoption of a specific control measure, and that we could not condition approval of the Billings/Laurel SO₂ SIP on a particular emission limitation for MSCC's 100-meter stack. *See* Goetz letter, document #IV.A-18, exhibit D, comment #V, p. 63.

Response: We agree with the commenter that this is a correct statement of the holding in *Commonwealth of Virginia*. However, in this case we are not conditioning approval of the Billings/Laurel SO₂ SIP on the State's adoption of a specific control measure. We are disapproving an emission limitation (*i.e.*, 100-meter stack emission limitation) because it violates the prohibition of section 123 of the Act on giving credit for stack heights in excess of good engineering practice.¹⁸

¹⁸ We are also disapproving the escape clause in all the stipulations, MSCC auxiliary vent stack

The State nevertheless remains free to devise specific emission limitations for the sources, provided it can demonstrate that the selected limits will insure attainment of the NAAQS and the limits meet the requirements of section 110(a)(2) of the Act.

The commenter cited an earlier Supreme Court opinion (*Train v. Natural Resources Defense Council*, 421 U.S. 60 (1975)) to support his position that we lack authority to disapprove the emission limitation for MSCC's 100-foot stack. That opinion, quoted in *Commonwealth of Virginia*, held that EPA does not have authority to disapprove a State's choice of emission limitations if they are part of a plan which, as a whole, satisfies the requirements of section 110(a)(2) of the Act. According to the *Train* court, EPA may disapprove a State's plan and promulgate a FIP only if the State's plan does not protect the NAAQS. Otherwise, "the State is at liberty to adopt whatever mix of emission limitations it deems best suited to its particular situation." *Commonwealth of Virginia*, 108 F.3d at 1407-1408, quoting *Train*, 421 U.S. at 79.

We do not agree that *Train* creates a bar to our disapproval of an emission limitation that does not comply with section 123 of the Act. That case was decided in 1975, before the 1977 amendments to the Clean Air Act added section 123 with its prohibition against allowing credit for excessive stack height. *Train* was also decided before the 1990 amendments added section 110(k), which contains specific criteria for EPA action on SIPs, including the condition that each SIP or SIP revision must "meet all the applicable requirements" of the Act. *Train*, therefore, does not preclude us from disapproving state emission limitations that conflict with specific provisions of the Act and EPA's implementing regulations. *See* also section 110(l) of the Act.

Commonwealth of Virginia, too, was not concerned with stack heights; that case concerned an EPA regulation imposing California's automobile emission standards on the states in the Northeast Ozone Transport Region. The court undertook a statutory analysis of complicated interactions among four different sections of the Act (sections 110, 177, 184, and 202) before concluding that section 110 did not give EPA the authority to prescribe specific

emission limit, the attainment demonstration (because of the stack height issue, flare issue and auxiliary vent stack issue), the provisions that allow sour water stripper emissions to be burned in the flare at Cenex and ExxonMobil, and the plan for failing to meet RACM/RACT.

SIP limitations in that case.¹⁹ In *Commonwealth of Virginia*, we were not simply disapproving a state implementation plan; we were directing states to adopt particular emission limitations. In this case, we are disapproving particular limitations in Montana's plan; we are not prescribing a particular limitation. The State retains the authority to adopt any emission limitation or mix of limitations it chooses as part of the Billings/Laurel SO₂ SIP, as long as the measures comply with all applicable provisions of the Act, including section 123, and EPA's regulations implementing the Act. We believe that neither *Train* nor *Commonwealth of Virginia* precludes our action here, which is authorized by section 123 and section 110(k) of the Act.

(c) *Comment*: One commenter stated that the whole SIP should be remanded to allow the State to re-evaluate the entire mix of limitations, so fairness can be preserved. See Goetz letter, document #IV.A-18, exhibit D, comment #V, p. 62.

Response: We informed the State as early as July 1996 (see document #II.C-5) that the stack height credit which MDEQ proposed to allow for MSCC's 100-meter stack did not comply with our stack height regulations. The State could have acted at any time before adopting and submitting the SIP revision in July 1998 to limit the stack height credit for MSCC and re-evaluate some or all of the SO₂ emission limitations in light of the more limited credit. Since the State did not take that action, we are now disapproving the stack height credit and emission limitations for the 100-meter stack at MSCC. We plan to propose a FIP to fill in the gap with an appropriate emission limitation that both demonstrates attainment and complies with our stack height requirements. The promulgation of a FIP, however, will not relieve the State of its primary responsibility to adopt a fully satisfactory SIP; the State

continues to have the authority and responsibility to re-evaluate the appropriateness of emission limitations for the Billings/Laurel area and to submit a SIP revision that will satisfy all statutory requirements, including the section 123 prohibition against credit for stack height in excess of good engineering practice.

(d) *Comment*: One commenter (Goetz letter, document #IV.A-18, exhibit D, comment #V., p. 63) stated that our partial disapproval makes the SIP more stringent than the State intended, an effect prohibited under the Act.

Response: The holdings in *Bethlehem Steel Corp. v. Gorsuch*, 742 F.2d 1028 (7th Cir. 1984), cannot be considered binding outside the Seventh Circuit.

Assuming for purposes of responding to the comment that *Bethlehem Steel* governs our action on Montana's SIP, in this case, the SIP is not more stringent than the State intended. In contrast to the situation in *Bethlehem Steel*, we are not disapproving a part of a SIP regulation that contains an exemption from an emission limitation that we are approving in another part of the same regulation. In *Bethlehem Steel*, the court held that we could not use our partial approval/partial disapproval authority in this way to delete a limiting condition on a state requirement and make the portion of the requirement remaining in the federally approved SIP more stringent than the original regulation adopted by the state. See 742 F.2d at 1036. The court acknowledged that we have the authority to set more stringent limitations, as necessary to protect the NAAQS, but held that we must do so through adopting a Federal Implementation Plan ("FIP"); we cannot avoid the extra procedural process of adopting a FIP by simply disapproving the SIP in part. See *id.* at 1035.

Our disapproval of the stack height credit extended by the State to MSCC does not make the federally approved SIP more stringent than the State stipulation, and we are not attempting to avoid promulgating a FIP. Partial disapproval here does not give us the power to enforce an emission limitation from which the source would be exempt under state law. The same is true for our disapproval of the attainment demonstration for lack of flare emission limitations. The effect of our partial disapproval is just the opposite: the emission limitations established by the State for MSCC's 100-meter stack and for the flares are state-enforceable, but not federally enforceable. To establish a more stringent, federally enforceable limitation for MSCC or the flares, we must promulgate a FIP. This is exactly what we intend to do, to fill all the

regulatory gaps created by our partial disapproval of the SIP. This is the remedy approved by the Seventh Circuit when a State's SIP is inadequate or otherwise fails to meet Act requirements.

(e) *Comment*: One commenter (MSCC letter, document #IV.A-19, p. 5 and comment #60) stated that EPA has not identified emission limits it proposes to impose on MSCC. According to the commenter, this silence makes it infeasible for MSCC or the State to determine the effects of EPA's proposals on MSCC. This commenter said that the correct approach before EPA takes final action is for EPA to identify and explain its alternative so all parties may intelligently comment on them.

Response: The purpose of our action here is not to establish emission limits for MSCC. The purpose is to determine whether the State's SIP submittal meets the requirements of the CAA and our regulations. We think we have adequately described why aspects of the SIP do not meet CAA requirements and why partial disapproval is warranted. As a legal matter, we cannot impose alternative emission limits through a SIP disapproval, but, instead, can impose such limits only through promulgating a FIP. Although we could have separately proposed a FIP simultaneously with our disapproval of the SIP, we chose not to and are not required to under the CAA. Our disapproval of the SIP has no immediate impacts on MSCC or any other source. If and when we promulgate a FIP for the area, we will first propose the FIP, including emission limits for sources subject to the FIP, provide an opportunity for the oral presentation of data, views, or arguments, and take written comment from the public.

(f) *Comment*: One commenter (MSCC letter, document #IV.A-19, #60) stated that EPA's FIP, which is yet to come, may be inconsistent with the law or may be impractical for the State to impose.

Response: We believe we have adequately explained, in our proposed disapproval, and in this final disapproval, our bases for rejecting portions of the SIP. We believe comments regarding a future FIP are irrelevant to this action; any such concerns may be raised if and when we propose a FIP. Moreover, if and when EPA adopts a FIP, EPA and not the State will "impose" its requirements.

2. Constitutional Question: Tenth Amendment

(a) *Comment*: Two commenters (Goetz letter, document #IV.A-18, exhibit D, comment #2, p. 9; MSCC letter, document #IV.A-19, comment #1, 3rd

¹⁹ To the extent that *Commonwealth of Virginia* may be read as holding that section 110(k)(3) conditions EPA's approval of a SIP revision on meeting section 110(a)(2) criteria only and not on meeting other requirements of the Act (see 108 F.3d at 1409), such an interpretation is incorrect. Section 110(k)(3) states, "[the Administrator shall approve such submittal as a whole if it meets all of the requirements of this chapter." The phrase "this chapter" means the entire Act, which comprises Chapter 85 ("Air Pollution Prevention and Control") of Title 42 of the U.S. Code ("Public Health and Welfare"). Section 110 of the Act is one section of Subchapter I ("Programs and Activities") of Chapter 85. By the plain words of section 110(k)(3), EPA may approve a SIP or SIP revision only if it meets *all* the applicable requirements of Chapter 85 and thus all requirements of the Act. See also section 110(l) of the Act.

page) stated that through the SIP Call process and our proposed action on the SIP we exerted undue influence over Montana's SIP development process.

Response: We did not exert undue influence or coerce the State into taking action in response to the 1993 letter. Under the Clean Air Act, states have the basic choice of whether or not to participate in the federal regulatory scheme. See *Commonwealth of Virginia v. Browner*, 80 F.3d 869, 882 (4th Cir. 1996). States are sovereigns in their own right and independently make regulatory decisions affecting industry within their borders. Similarly, we independently exercise the authority provided by Congress to endorse or reject those decisions, for example by approving or disapproving a SIP.

Although we may advise a state as to what we may or may not approve under the Act, states retain responsibility for their regulatory decisions. See, e.g. *Air California v. U.S. Dept of Transportation*, 654 F.2d 616 (9th Cir. 1981) (the danger of losing federal funding may have exerted strong pressure but did not relieve a state governmental entity of responsibility for its decision). In that case, the Ninth Circuit declared that "concepts of coercion and duress are inappropriate in characterizing dealings between federal and state governments." 654 F.2d at 621. See also *Shell Oil Co. v. Train*, 585 F.2d 408, 414 (9th Cir. 1978) (federal advice to a state agency "cannot be equated with any kind of coercion"). We do not believe that the SIP Call or our response to requests for assistance from MDEQ took the form of coercion, nor compelled MDEQ to make particular choices in developing a control strategy for the Billings/Laurel area.

(b) **Comment:** Two commenters (MSCC letter, document # IV.A-19, comment # 12 and Goetz letter, document # IV.A-18, exhibit D, comment # V, p. 63) stated that our partial disapproval violates the principle of primacy set forth in the Act and triggers serious Tenth Amendment concerns.

Response: We do not believe that our action on the Billings/Laurel SIP raises Tenth Amendment concerns. Federal governmental action can be viewed as coercing a particular state action in violation of the Tenth Amendment to the Constitution only when the State has no choice but to participate in the federal regulatory framework. See, *Printz v. United States*, 117 S.Ct. 2365 (1997); *New York v. United States*, 505 U.S. 144, 112 S. Ct. 2408 (1992). Our authority under the Act to disapprove parts of a SIP does not raise the same level of sovereignty concerns found in

those cases: partial disapproval does not compel a state legislature to adopt a federal regulatory program, as in *New York*, or commander state officials to execute a federal law, as in *Printz*.

Under the Tenth Amendment, federal law may be designed to induce state action. See *Commonwealth of Virginia v. Browner*, 80 F.3d 869, 881 (4th Cir. 1996) (citing *FERC v. Mississippi*, 456 U.S. 742, 766, 102 S.Ct. 2126, 2141 (1982)). Neither the Act nor EPA compels states to adopt SIPs or particular SIP provisions. But we can induce or persuade states to adopt SIPs and SIP revisions and to make these conform to federal requirements if states wish to obtain EPA approval of their SIPs. See *Commonwealth of Virginia*, 80 F.3d at 881, where, in the context of an operating permit program under Title V of the Act, the Fourth Circuit ruled that "the CAA does not compel the states to modify their standing rules; it merely induces them to do so." That case flatly rejected the argument that the incentives contained in the Act to encourage approvable state participation amount to coercion. Since Montana remains free under the Act to choose to not participate in the CAA regulatory scheme, our final action on the SIP Call and the SIP cannot be viewed as compelling the State's action.

(c) **Comment:** One commenter (MSCC letter, document # IV.A-19, comment #s 1, 4th page, 2, and 3) stated that we used our sanctions and funding powers to coerce the State to take positions that conflicted with prior agreements with industry and otherwise infringed on MSCC's rights.

Response: By threatening to impose sanctions, we did not coerce or compel state action on the SIP Call; to the extent that the threat of sanctions had any effect on SIP development, it only helped to induce or persuade the State to respond. On some issues, we were unable to persuade the State of the correctness of our position, hence our partial disapproval. In *Commonwealth of Virginia*, the Fourth Circuit held that although the sanctions provisions of the Clean Air Act potentially burden the States, "they amount to inducement rather than 'outright coercion.'" 80 F.3d at 881. The court declared that the highway funding sanction is allowed by the Spending Clause (U.S. Const. art. I, § 8, cl. 1), allowing Congress to limit the award of federal funds to provide for the "general welfare," which, as defined by the Commerce Clause (U.S. Const. art. I, § 8, cl. 3), "gives Congress the power to regulate 'activities causing air or water pollution or other environmental hazards that may have effects in more than one State.'" *Id.* (quoting *Hodel v.*

Virginia Surface Mining & Reclamation Ass'n, 452 U.S. 264, 282, 101 S.Ct. 2352, 2363 (1981)). The Fourth Circuit held that the highway sanction does not rise to the level of "outright coercion," because it does not deny all highway funding in a state, only in non-attainment areas and only for projects that do not promote safety or reduce air pollution. *Id.* The highway sanction, therefore, "is a valid exercise of the Spending Power. As a valid exercise of that power, it also comports with the requirements of the Tenth Amendment." 80 F.3d at 882.

The *Commonwealth of Virginia* court also held that the offset sanction, which limits new construction or modification of major stationary sources of air pollution in non-attainment areas, is constitutional because it regulates private pollution sources, not states as governmental entities. *Id.* The offset sanction, therefore, does not violate "the principles of federalism embodied in the Tenth Amendment." *Id.*, citing *New York v. United States*, 505 U.S. at 174, 112 S.Ct. at 2427; and *Hodel*, 452 U.S. at 288, 101 S.Ct. at 2366.

The final sanction we can use to induce the State to develop an adequate SIP is to develop a FIP for the area, in lieu of all or part of the state plan. This sanction, too, does not raise Tenth Amendment concerns. Under the Commerce Clause, Congress may preempt state law completely, or it may take the less drastic step of allowing the states to avoid preemption by adopting and implementing their own state plans, as long as these are adequate to address congressional concerns. *Hodel*, 452 U.S. at 289, 101 S.Ct. at 2366; *Commonwealth of Virginia*, 80 F.3d at 883. Although section 110 of the Act provides that each State "shall, after reasonable notice and public hearing, adopt and submit" a SIP, this language does not impose a mandatory duty on the States, but "merely gives the States the first opportunity to adopt and submit a plan." *Sierra Club v. Indiana-Kentucky Electric Corp.*, 716 F.2d 1145, 1148 (7th Cir. 1983). A State may not be compelled to develop or submit a SIP. *District of Columbia v. Train*, 521 F.2d 971, 984 (D.C. Cir. 1975) (*vacated on other grounds*, 431 U.S. 99, 97 S.Ct. 1635 (1977)). If an adequate plan is not submitted, however, EPA may establish a plan for the State. *Id.* Because the State is not commanded to regulate, Montana could choose not to develop a SIP and instead let us promulgate and enforce a FIP for the Billings/Laurel area. In that case, the full regulatory burden would be borne by the federal government, and the sanction is constitutional. See *Hodel*, 452 U.S. at

288, 101 S.Ct. at 2366; *Commonwealth of Virginia*, 80 F.3d at 882. Montana could also choose, and has chosen, not to address all the questions about the adequacy of the SIP that we raised in our proposed rulemaking action, and let us promulgate a FIP to fill the gaps caused by our partial disapproval. Neither partial disapproval nor promulgation of a FIP, both of which are authorized by the Act, violates the Tenth Amendment.

3. Constitutional Question: Delegation of Legislative Power

(a) *Comment*: One commenter (Goetz letter, document # IV.A-18, exhibit D, comment # VI, p. 64) stated that EPA's application of the stack height rule to MSCC constitutes an unconstitutional delegation of legislative power and cited a recent DC Circuit case, *American Trucking Ass'n, Inc. v. EPA*, 175 F.3d 1027 (D.C. Cir. 1999). In the commenter's opinion, EPA's stack height rule, as interpreted by EPA in this case, is so loose and poorly drafted as to give the agency virtually unfettered administrative discretion to make policy choices as it sees fit. The commenter asserted that MSCC is faced with a situation in which the State and EPA interpret the stack height regulations differently.

Response: First, the D.C. Circuit has already upheld the stack height regulations. They may not be challenged now based on the commenter's theory. Second, we do not believe the non-delegation doctrine is relevant to our interpretation or implementation of our own regulations, which have already been determined to be valid. Our application of our regulations is not a constitutional question. Instead, the question is whether our interpretation and application of our regulations in this case is consistent with the regulations or not. As we have explained elsewhere, we believe that our interpretation of the stack height regulations is reasonable.

We also note that the case relied on by the commenter has been reversed by the United States Supreme Court. See *Whitman v. American Trucking Associations, Inc., et al.*, 531 U.S. 457, 121 S.Ct. 903, 149 L.Ed 2d 1, February 27, 2001.

Regarding the claim of differing State and EPA interpretations, it is not unusual that we find it necessary, in the role Congress gave us vis-a-vis SIPs, to disapprove part or all of a SIP submitted by a state because we disagree with the state regarding the appropriate interpretation of the Clean Air Act or our regulations. This does not create a constitutional flaw in our action.

4. Constitutional Question: Taking of Private Property

(a) *Comment*: One commenter (MSCC letter, document # IV.A-19, comment # 13) stated that our partial disapproval of the stack height credit for MSCC's 100-meter stack and our consequent disapproval of the emission limitations for that stack constitute a "taking" of private property for public purposes, presumably under the Fifth Amendment of the Constitution. The same commenter (MSCC letter, document # IV.A-19, comment #s 52 and 53) stated that our action transfers emission rights from MSCC to other entities in future apportionment of the airshed, and that we should pay MSCC just and reasonable compensation for eroding the value of private property or creating "involuntary servitude" (*sic*).

Response: These comments are untimely. Our partial disapproval does not have the effect of disturbing the stack height credit given by the State or the state-enforceable emission limitation for this source. The effect of our partial disapproval is to decline to make the emission limitation for the 100-meter stack federally enforceable. Our disapproval creates a gap in the federally enforceable SIP, which we intend to fill by adopting a FIP. If we propose to adopt a FIP which, in MSCC's belief, effects a regulatory taking of MSCC's property for public purpose without just compensation, MSCC could raise the takings issue at that time. It is premature to raise the issue now.

Even if the issue were ready to be addressed at this time, regulation under the Act in general does not represent an unconstitutional "taking" of private property under the Fifth Amendment. See *Sierra Club v. Environmental Protection Agency*, 540 F.2d 1114, 1139-1140 (D.C. Cir. 1976) ("The use of private land certainly is limited, but the limitation is not so extreme as to represent an appropriation of the land"). See also *South Terminal Corp. v. Environmental Protection Agency*, 504 F.2d 646, 678 (1st Cir. 1974) ("The takings clause is ordinarily not offended by regulation of uses, even though the regulation may severely or even drastically affect the value of the land or real property"). In order to comply with the Act and our regulations, a future SIP or FIP might have to impose a lower emission limit on MSCC, but this would not amount to a taking, any more than the imposition of other emission limits on MSCC would amount to a taking.

(b) *Comment*: One commenter (Goetz letter, document # IV.A-18, exhibit D, comment # VII, pp. 65-66) stated that

our disapproval of parts of the ExxonMobil and MSCC stipulations relating to incorporation of earlier stipulations and apportionment of the airshed is unauthorized and may constitute an unconstitutional taking of MSCC's property. The commenter further stated that the Act provides for property rights in airsheds through its provision for emission trading and that MSCC's tenure in the area creates rights in the airshed. These are valuable property rights which may not be taken without just compensation under the Fifth Amendment to the U.S.

Constitution, the commenter claimed. Another commenter (MSCC letters, document # IV.A-19, comment #s 50, 51, and 52; and document # IV.A-20, comment # 14) stated that our position on "property right" defies the Constitution. A scarce resource is being partitioned between competing users, as with water rights. If the government takes property, it must make MSCC whole through just compensation. Another commenter (ExxonMobil letter, document # IV.A-28) stated that references to the earlier stipulations should be deleted from the EPA-approved SIP. (The reader is referred to further discussion of the incorporation of earlier stipulations in section V.H., below.)

Response: The short answer is that our disapproval of the particular language in the State stipulations does not affect any rights enjoyed by MSCC, including any property rights in the atmosphere, if they exist. Our disapproval affects only the federal enforceability of provisions of the State stipulations. The provisions themselves remain in effect as to their state enforceability. There has been no taking of property that would raise Fifth Amendment concerns.

Even if our action were to affect MSCC's "emission rights" under the SIP, these are not "private property" protected under the Takings Clause of the Fifth Amendment. To the extent that MSCC has emission rights, they are created by the enforceable emission limitations of the SIP. It would be an exercise in circular reasoning to turn emission rights created under a federal regulatory program into property rights that cannot be altered by further regulation under the same program without triggering constitutional protections against a governmental taking. The emission rights created under the Act, whether part of a SIP emissions trading program or the acid rain program or new source review, are limited by and have value within the statutory program only. They do not exist outside of the Act. We can alter the

emission limitations of a SIP that give rise to such emission rights, thus changing their value, as long as our action has a proper regulatory purpose such as protection of the NAAQS. Since we have not yet proposed a FIP, a claim that we have improperly changed the value of MSCC's emission rights is premature.

The argument that MSCC has established rights to emit merely by having "tenure" in the Billings area is without foundation. Because MSCC was constructed before 1977, it is true that at that time the source was not subject to pre-construction permit requirements under the Act and was "grandfathered" or exempted from prevention of significant deterioration ("PSD") requirements. However, since passage of the Act in 1970, MSCC has been subject to potential limitation of its emissions under the Act to protect the SO₂ NAAQS. This potential became an actual limitation in 1977, under the original Billings/Laurel SIP, and again in 1996-98, under the SIP revisions that have been adopted by the State. MSCC and the other sources in the area do not enjoy any rights to emit pollutants that would cause or contribute to a violation of the NAAQS, and currently permitted allowable emissions levels do not constitute private property rights. *See, e.g.,* 40 CFR 70.6(a)(6)(iv): "The permit does not convey any property rights of any sort, or any exclusive privilege."

(c) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, comment # VII, p. 65) cited a Supreme Court opinion, *Eastern Enterprises v. Apfel*, 524 U.S. 498, 118 S.Ct. 2131 (1998), to support his contention that disapproval of the phrase "apportionment of the airshed" in paragraph 1 of the MSCC stipulation effects a taking of MSCC property.

Response: As already stated, partial disapproval of the SIP does not affect any rights, including property rights, enjoyed by MSCC or the other Billings/Laurel sources. In addition, neither the emission rights existing under the SIP nor the State's apportionment of the "airshed"²⁰ have the effect of creating

property rights. *See response* to the immediately preceding comment, *Comment 4(b)* above.

Even if MSCC did hold an interest in "private property" created by the "apportionment of the airshed" described in the stipulation, the *Eastern Enterprise* opinion does not support MSCC's position that such property has been taken. *Eastern Enterprise* concerns the effect of the Coal Industry Retiree Health Benefit Act of 1992 on a coal company that last operated in 1965. The legislation required the company to pay into a new retirement fund, to provide lifetime benefits for widows of employees who had worked for the company 30 to 50 years prior to the legislation's enactment. The case is extraordinary, in that there was no taking of specific property or assets of the company, but rather imposition of financial liability that would amount to many millions of dollars. The Supreme Court reached beyond previous case law to apply the Takings Clause to a statute that placed such a "severe, disproportionate, and extremely retroactive" burden as to upset "fundamental notions of justice." 118 S.Ct. at 2152. The decision essentially involved application of the principles behind the *Ex Post Facto* Clause of Article 1, § 9, clause 3 of the U.S. Constitution, prohibiting retroactive criminal sanctions, to the retroactive imposition of liability in a non-criminal setting, by deeming such liability to be a "taking." *See* 118 S.Ct. at 2151, citing *Calder v. Bull*, 3 Dall. 386 (1798).

The *Eastern Enterprise* decision is not relevant in this rulemaking. Nowhere in this rulemaking, including our disapproval of the phrase "apportionment of the airshed," do we impose any financial liability on MSCC, let alone a liability so burdensome that it might be construed as a "taking" of MSCC's property. Nor is this rulemaking a form of retroactive governmental action based on activity engaged in before the effective date of the regulation, let alone one that "improperly places a severe, disproportionate, and extremely retroactive burden" on MSCC, in the words of *Eastern Enterprises*, 118 S.Ct. at 2153. Our action of partially approving the SIP has a prospective, rather than a retroactive, effect on the federal enforceability of the Billings/Laurel plan.

5. Constitutional Questions: Other

(a) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment #

contribution from any other sources upwind that are explicitly included as inputs to the model.

13) raised various other constitutional challenges to our proposed action, including interference with private contract; seizure of private property or effects, infringement on equal protection under the law; subjection to unusual punishment, double jeopardy, ex post facto laws, or laws having the effect of bills of attainder; and involuntary servitude.

Response: We regard these arguments as inapplicable to the matter at hand. To the extent that we understand the arguments as raised in the comment, they are either untimely or unfounded. The commenter's argument that the Act may not authorize action by EPA that infringes on MSCC's right to be afforded equal protection under the law, for example, is untimely. Our partial disapproval only affects the federal enforceability of the emission limitation for MSCC's 100-meter stack. It is premature to claim that a federally enforceable emission limitation for MSCC would so unfairly burden MSCC in comparison with other sources in the area as to violate the guarantee of equal protection provided by the Fifth Amendment through incorporation of the Fourteenth Amendment to the U.S. Constitution. We have not yet proposed a federally enforceable limitation for MSCC.

(b) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 1, pp. 3 and 4; comment # 13) stated that our actions have interfered with MSCC's contract rights created in the 1977, 1996, and 1998 stipulations with the State. In particular, the commenter claims that we have impaired MSCC's rights to good engineering design credit for the 100-meter stack, protection from non-validated modeling, and a guaranteed level of SO₂ emissions.

Response: One premise of the comment seems to be that MSCC has an entitlement or contract right to a 100-meter stack based on a 1977 State determination of GEP, and a State stipulation based on that determination. However, our 1985 stack height regulations specifically provided for varying degrees of "grandfathering" for stacks built before certain dates. For reasons unknown to us, MSCC did not actually start building its 100-meter stack until late 1993 (document # IV.A-17, exhibit #37), and, thus, under our 1985 stack height regulations, the stack does not qualify for any form of grandfathering. Various industrial sources challenged our 1985 stack height regulations on grounds similar to or the same as those raised by the commenter. The Court of Appeals for the D.C. Circuit rejected these challenges. *NRDC v. Thomas*, 838 F.2d

²⁰ Actually, what is referred to as the "airshed" is the difference between the "background" levels of SO₂ without contribution from any of the industrial sources and the NAAQS for SO₂; it is this difference which the State has apportioned among the industrial sources in the Billings/Laurel area in its effort to fairly burden each one. This difference in SO₂ concentrations is not a tangible thing capable of being possessed. Note that the "background" was both modeled and monitored. Monitored regional background concentrations of SO₂ were obtained from remote, rural monitoring sites. These yielded a fairly pristine background. In the modeled attainment demonstration, the background for any single source consists of the regional background plus the background

1224, 1249–1251 (D.C. Cir. 1988). Under section 307(b) of the Act, it is also too late for MSCC to attempt to resurrect these failed arguments. Thus, we do not believe MSCC has an entitlement or contract right to a 100 meter stack height credit.

Also, assuming for the sake of argument that the stipulations between MSCC and the State could be considered private contracts and not governmental regulatory actions, the assertion that we have unconstitutionally infringed on the rights created by such contracts is without foundation. The Contract Clause of the U.S. Constitution, Article 1, § 10, clause 1, prohibits states from passing any “law impairing the obligation of contracts.” It does not apply to Acts of Congress, nor does the due process clause of the Fifth Amendment make this prohibition applicable to a review of congressional legislation (or, by implication, an agency action). *See Washington Star Co. v. International Typographical Union Negotiated Pension Plan*, 729 F.2d 1502, 1507 (D.C. Cir. 1984). *See also Eastern Enterprises v. Apfel*, 118 S.Ct. 2131, 2148 (1998) (“[c]ontracts, however express, cannot fetter the constitutional authority of Congress,” quoting *Connolly v. Pension Benefit Guaranty Corporation*, 475 U.S. 211, 223–224, 106 S.Ct. 1018, 1025 (1986)).

In addition, as stated above, our disapproval of MSCC’s emissions limitations merely affects the federal enforceability of those limitations and does not alter or interfere with MSCC’s obligations or rights under State law. So, the commenter’s complaint is untimely in any event.

(c) *Comment*: One commenter (MSCC letter, document # IV.A–19, comment # 13) stated that our action or the Act infringes on various other constitutional protections by effecting a seizure of private effects, double jeopardy, cruel and unusual punishment, or by having the effect of bills of attainder or ex post facto laws, or by creating involuntary servitude.

Response: These constitutional challenges are also unfounded. The protection against seizure of property or effects under the Fourth Amendment pertains to the prohibition against “unreasonable search and seizure” of evidence by law enforcement officers in a law enforcement proceeding. This rulemaking does not involve an enforcement proceeding, and no effects have been seized from any person. Similarly, the Fifth Amendment’s prohibition against double jeopardy for the same offense, the Eighth Amendment’s protection against cruel

and unusual punishment, and the prohibitions in Article 1, § 9, clause 3, against bills of attainder (imposing liability without judicial process) and ex post facto laws (imposing criminal sanctions for acts engaged in prior to a law’s effective date) only concern the constitutionality of imposing sanctions on individuals for unlawful acts. They are not applicable to this rulemaking.

Finally, no individual has been compelled to labor for another, or to engage involuntarily in any activity whatsoever, in violation of the Thirteenth Amendment’s prohibition against involuntary servitude. If the commenter intended to refer to a servitude on the land, in the sense of a burden on one property for the benefit of another, this too is not relevant, because “servitude on the land” refers to the creation of easements under common law, which does not apply to this rulemaking.

(d) *Comment*: One commenter (MSCC letter, document # IV.A–19, comment # 59) stated that the Act unconstitutionally deprives citizens and the regulated community of effective recourse to the courts with its broad prohibition of later challenges to rules.

Response: Reflecting Congress’ interest in finality of agency action, section 307(b) of the CAA requires that appeals of agency action occur within sixty days of rule promulgation, or if grounds for appeal arise after promulgation, within sixty days after such grounds arise. The constitutionality of this limitation on challenges to agency action has been upheld. *See Lloyd A. Fry Roofing Co. v. EPA*, 554 F.2d 885, (8th Cir. 1977).

6. Statutory Challenge

(a) *Comment*: One commenter (MSCC letter, document # IV.A–19, comment #’s 3, 5, 7, 10, 11 and 15) stated that our proposed partial approval of the Billings/Laurel SIP revisions is inappropriate because the enforceable emission limitations adopted by the State exceed those required by the Act; that we should approve only the provisions that are federally required and should disapprove or otherwise remand the rest of the SIP to the State.

Response: In general, section 116 of the Act provides that States may adopt emission standards stricter than national standards. The United States Supreme Court has interpreted this provision together with section 110 of the Act to mean that States may submit implementation plans more stringent than federal law requires and that EPA must approve such plans if they meet the minimum requirements of section 110(a). *See Union Electric Co. v.*

Environmental Protection Agency, 427 U.S. 246, 266, 96 S.Ct. 2518, 2529 (1976). In other words, we do not have the option of disapproving more stringent state requirements, but must approve them as long as they meet Act criteria for SIPs.

It is difficult to say which, if any, SIP limitations are more stringent than the Act requires. The Act does not actually establish emission limitations for SIPs, but requires that the emission limitations adopted by a State must be sufficient to “assure that national ambient air quality standards are achieved.” *See* section 110(a)(2)(C) of the Act. The determination of sufficiency is made by a modeling demonstration. *See* section 110(a)(2)(K) of the Act; *see also* 40 CFR 51.112, which provides that “[t]he adequacy of a control strategy shall be demonstrated by means of applicable air quality models, data bases, and other requirements specified in the appendix W of this part.” The Act requires States both to attain and maintain the standards. *See* section 110(k)(5) of the Act. The control strategy must be demonstrated to protect the NAAQS in the present as well as in the future, providing an allowance for some level of emissions growth.

(b) *Comment*: One commenter (MSCC letter, document # IV.A–19, comment #1, 3rd page) stated that the levels of control imposed in the Billings/Laurel SIP plan exceed the authority directly available to the federal government in its regulation of interstate commerce.

Response: The federal government’s authority to regulate air pollution under the Commerce Clause of the Constitution has long been established. *See, e.g., District of Columbia v. Train*, 521 F.2d 971, 988 (D.C. Cir. 1975); vacated and remanded on other grounds *sub nom. EPA v. Brown*, 431 U.S. 99, 97 S.Ct. 1635 (1977); *Sierra Club v. Environmental Protection Agency*, 540 F.2d 1114, 1139 (D.C. Cir. 1976), *cert. den.*, 430 U.S. 959, 97 S.Ct. 1610 (1977). In *Hodel*, the Supreme Court indicated its agreement with these decisions. *See* 452 U.S. at 282, 101 S.Ct. at 2363. The comment implies that our authority to approve SIPs is limited to minimal protection of the NAAQS. The courts have not interpreted the Act in this way and have not limited our authority to approve SIPs to approval of only a minimum of protection. *See Union Electric Company v. Environmental Protection Agency*, *ibid.* *See also Sierra Club*, 540 F.2d at 1139 (“Regulation of air pollution clearly is within the power of the federal government under the commerce clause, and we can see no basis on which to distinguish

deterioration of air cleaner than national standards from pollution in other contexts"). If Montana had submitted emission limitations that could be shown by modeling to be more stringent than necessary to attain and maintain the SO₂ NAAQS, we would have to approve those limitations as long as they satisfied other Act requirements.

7. Conditional Approval

(a) *Comment:* One commenter (Yellowstone Valley Citizens Council, document # IV.A-29) expressed concern that the MDEQ might disregard any timeframes proposed by us and feared that the State would drag its feet in fulfilling its commitment to make revisions to the SIP. The commenter suggested that we demand that the Racicot Administration ensure timely execution of necessary changes to the SIP with clear expectations and consequences for failure to implement these changes.

Response: On May 4, 2000 the Governor of Montana submitted a SIP revision to fulfill the commitments on which the proposed conditional approval was based. Since the Governor has fulfilled his commitment, we believe it is not appropriate to finalize the conditional approval. Instead, we will complete notice-and-comment rulemaking on those portions of the July 29, 1998 submittal we proposed to conditionally approve on July 28, 1999 and on all of the May 4, 2000 submittal.

F. Due Process for SIP Approval

On July 28, 1999 (64 FR 40791), we proposed action on the Billings/Laurel SO₂ SIP through informal rulemaking, as authorized by section 110(k) of the Act and the Administrative Procedures Act (APA), 5 U.S.C. 553.

Summary of Comments and Response

One commenter submitted comments on our rulemaking process requesting more formal rulemaking procedures.

We have considered the comments received and still believe our informal rulemaking process authorized by section 110(k) of the Act and the Administrative Procedures Act (APA), 5 U.S.C. 553 is appropriate and sufficient.

The following is a summary of the comments received and our response to the comments.

(1) *Comment:* One commenter (Goetz letter, document #IV.A-18, exhibit D, comment #VIII, p. 66) requested that we afford MSCC the right to conduct discovery of our documents and cross-examine EPA witnesses in this rulemaking, to satisfy substantial due process procedural protections.

Response: Due process in the context of the SIP Call is discussed in section V.A.2, above. We are taking action on the SIP Call and on the Billings/Laurel SIP through informal rulemaking, as authorized by section 110(k) of the Act and the Administrative Procedure Act (APA), 5 U.S.C. 553. The requirements of due process for this rulemaking are met under those provisions by publication of a proposed rulemaking action with an opportunity for submission of written comments to be considered by the agency prior to taking final action.

Section 110 of the Act does not require hearings on the record, or even a hearing and oral presentation of comments prior to issuing a binding SIP Call or approval or disapproval of a SIP. See section 307(d) of the Act omitting SIP approvals from a long list of EPA actions, including the promulgation or revision of a FIP, which are subject to the requirement of section 307(d)(5) of an opportunity for the oral presentation of views in addition to the submission of written comments. Section 110 of the Act requires only the minimum procedural requirements of section 553 of the APA, including public notice and opportunity for submission of written comments. See *Indiana & Michigan Electric Co. v. Environmental Protection Agency*, 509 F.2d 839, 846 (7th Cir. 1975); *Buckeye Power, Inc. v. EPA*, 481 F.2d 162, 172 (6th Cir. 1973).

Even when an opportunity for hearing is required, as for promulgation of a FIP, we are not required by statute to give regulated entities the opportunity to cross-examine EPA witnesses in an adjudicatory hearing. See *Cleveland Electric Illuminating Co. v. E.P.A.*, 572 F.2d 1150, 1157 (6th Cir. 1978), where petitioners sought remand of our action on a FIP and a full evidentiary hearing, including cross-examination of EPA witnesses. The Sixth Circuit declined, stating:

Administrative rulemaking which is to be preceded by extensive hearings where "a party is entitled to present his case or defense by oral or documentary evidence, to submit rebuttal evidence, and to conduct such cross-examination as may be required for a full and true disclosure of the facts . . ." (5 U.S.C. § 556(d) (1967) is required only when the last sentence of section 553(c) of the APA applies. This section provides:

"When rules are required by statute to be made on the record after opportunity for an agency hearing, sections 556 and 557 of this title apply instead of this subsection." (Emphasis added). (5 U.S.C. § 553(c)(1967)).

(Sections 556 and 557 of the APA outline the requirements for extensive, adjudicatory-type hearings.)

572 F.2d at 1157, citing *Buckeye Power*, 481 F.2d at 172. In other words, full-scale evidentiary hearings that allow for presentation of evidence and cross-examination of opposing witnesses are only required when section 553(c) of the APA applies, and that section applies when and only when "rules are required by statute to be made on the record after opportunity for an agency hearing." 5 U.S.C. 553(c). This interpretation has been approved by the Supreme Court. See *United States v. Allegheny-Ludlum Steel Corp.* 406 U.S. 742, 92 S.Ct. 1941 (1972).

The Act does not require rulemaking "on the record after opportunity for an agency hearing" for a SIP Call or approval or disapproval of a SIP or SIP revision, or indeed for any other rulemaking. The requirement of section 307(d)(5) of an opportunity for hearing, which applies to FIPs but not SIPs, only requires "an opportunity for the oral presentation of data, views, or arguments, in addition to an opportunity to make written submissions," as well as a record of the proceedings and an opportunity for submission of rebuttal and supplementary information. The formal adjudicatory procedures of sections 556 and 557 of the APA do not apply to this or any other EPA rulemaking under the Act.

(2) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, comment # VIII, p. 66) stated that even if the SIP approval process does not normally require formal procedures, procedural requirements should not be treated rigidly and traditional procedures may not be automatically adequate to provide due process (citing *Walter Holm & Co. v. Hardin*, 449 F.2d 1009, 1015 (D.C. Cir. 1971); *O'Donnell v. Shaffer*, 491 F.2d 59, 52 (D.C. Cir. 1974); *Seacoast Anti-Pollution League v. Costle*, 572 F.2d 872 (1st Cir. 1978) (ordering a remand of our permit decision under the Clean Water Act for the limited purpose of allowing the administrator to determine whether cross-examination would be useful).

Response: These cases concern the interpretation of statutory procedural requirements other than Clean Air Act requirements. Two other cases cited in the comment do concern the Clean Air Act but are not controlling: *Kennecott Copper Corp. v. Environmental Protection Agency*, 462 F.2d 846, 850 (D.C. Cir. 1972) (stating that "there are contexts . . . in which the minimum requirements of the Administrative Procedure Act may not be sufficient" and remanding the SO₂ secondary standards to the Administrator for a statement explaining how he derived

the standard); *Bunker Hill Co. v. Environmental Protection Agency*, 572 F.2d 1286 (9th Cir. 1977)(remanding a SIP rulemaking for hearing with right of cross-examination, discussed below).

(3) *Comment*: One commenter (Goetz letter, document # IV.A-18, exhibit D, comment # VIII, p. 66) stated that MSCC is entitled to greater procedural protections in this rulemaking, because much of the focus is on one party (MSCC) in a matter involving factual disputes and requiring the resolution of highly complex and technical issues.

Response: Our partial disapproval of the SIP is not limited only to issues involving MSCC's 100-meter stack. We are also disapproving the SIP in part for failure to establish an enforceable limitation on flare emissions. This aspect of our partial disapproval involves three other sources in addition to MSCC. The stack height issue itself, where the focus is on MSCC, involves our interpretation of our stack height regulation, primarily a question of law. In any case, as the *Cleveland Electric Illuminating Co.* court noted, typically the decisions which Congress assigns to administrative agencies are of the type that would be called technical and complex; yet Congress and the Supreme Court have not given courts the responsibility to pick and choose agency hearing procedures based on the complexity of the questions presented. See 572 F.2d at 1160.

In a few cases, the courts have granted more extensive procedural protections than those required by statute. In *Bunker Hill Co. v. Environmental Protection Agency*, the Ninth Circuit required a formal evidentiary hearing with cross-examination of witnesses in a remand of our disapproval of a SIP control strategy for a lead smelter. 572 F.2d at 1305. The state plan imposed 72 percent control of SO₂ emissions from a lead smelter; the court found that we were "substituting standards that would guarantee 82 percent control." *Id.* at 1291. Apparently, we promulgated federal emission limitations for the source, although it is not clear from the opinion whether we promulgated a FIP. In *Bunker Hill*, the company objected that our emission limitations were technologically and economically infeasible. The court remanded the matter to us to further consider the technological feasibility of our proposed limitations and required us to allow the company to cross-examine our experts on the technological feasibility of the proposed control measures. *Id.* at 1305. The Ninth Circuit stated that cross-examination was not strictly required by the APA, since we were not conducting rulemaking "on the record," but that

cross-examination would "help crystallize the varying contentions of the experts" on complex technical issues and aid the court in reviewing final action. *Id.*

In contrast to the rulemaking in *Bunker Hill*, this rulemaking is simply an approval and disapproval action on a SIP. We are not promulgating or imposing already promulgated federal emission limitations. By our rulemaking, MSCC will not be subject to limitations more stringent than the requirements of the State SIP, and those requirements are not disturbed by this rulemaking. Nor is there any claim that MSCC is being subjected to requirements that are technologically infeasible. Thus, there is no apparent need to crystallize the contentions of experts on factual matters of a "highly complex and technical nature" in order to aid a court in reviewing our decision. The same due process concerns the Ninth Circuit found in *Bunker Hill* are not at play in this rulemaking. Just as the *Cleveland Electric Illuminating Co.* court observed, when it declined to follow the example of the *Bunker Hill* opinion, we do not find "any legal requirement or practical need" for a hearing, with or without cross-examination. See 572 F.2d at 1160.

The other case the commenter cited as requiring cross-examination in a rulemaking that was not "on the record," *Marine Space Enclosures, Inc. v. Federal Maritime Comm'n.*, 420 F.2d 577 (D.C. Cir. 1969), concerns a decision by the Federal Maritime Commission, under the Shipping Act of 1916, to award a contract for constructing a maritime passenger terminal. The statute, as interpreted by the court, required a hearing prior to decision. The D.C. Circuit remanded for a public hearing, but did not require the commission to provide the opportunity for cross-examination, saying that the issues might be adequately developed more informally: "we refrain at this juncture from specifying that our remand order requires an evidentiary hearing." 420 F.2d at 890. Even the decision in that case that a hearing was required does not appear pertinent to this rulemaking, where the Clean Air Act does not require one.

We decline to grant an opportunity for hearing in this rulemaking. The Clean Air Act and the APA do not require it. Nor do we believe that any unusual due process concerns would impel us to override the usual procedures mandated by statute and case law. The commenters who have submitted written comments on our proposed rulemaking have exercised the opportunity to present their views to us

through that mechanism; a full record has been prepared on which our rulemaking will be made final, and the record provides an adequate basis for judicial review.

G. Escape Clause

We proposed to disapprove the escape clause (a provision in the SIP that allows each source to withdraw its consent to the stipulation and thus nullify the SIP as it pertains to that source) because, if sources invoke the escape clause, the MDEQ would no longer have a plan to implement.

Summary of Comments and Response

One commenter opposed and three commenters supported our proposed action.

We have considered the comments received and still believe it is appropriate to disapprove the escape clause as proposed.

The following is a summary of the comments received and our response to the comments:

(1) *Comment*: One commenter (MSCC letter, document # IV.A-19, comment #'s 46 and 70) stated that disapproving the "escape clause" will render the SIP revision more stringent than the State intended and interfere with the State's agreement with industry to be even-handed in allocating the burdens of the SIP. That same commenter (MSCC letters, document # IV.A-19, comment # 47 and document # IV.A-20, comment # 12) stated that our disapproval of the escape clause should not have the effect of making provisions of the stipulations federally enforceable if they have been nullified by a source invoking the escape clause. Other commenters (Yellowstone Valley Citizens Council letter, document # IV.A-29, and Zaidlicz letter, document # IV.A-30) stated that the escape clauses in all the stipulations must be disapproved. One commenter (ExxonMobil letter, document # IV.A-28) stated that the escape clause does not need to be included in the final EPA-approved SIP, since the function of the escape clause was to allow all parties to negotiate the SIP in good faith and ensure consistent SO₂ control strategies and is not needed now that the State has adopted the stipulations.

Response: The escape clause in each stipulation allows each source to withdraw its consent to the stipulation and thus nullify the SIP as it pertains to that source, if the initial control strategy adopted by the State (or EPA as a FIP) for any of the other affected sources in the Billings/Laurel area is not "substantially similar in its common terms" to the source in question's

stipulation and attached exhibit of emission limitations. The opportunity to invoke the clause exists up to 60 days after receiving written notice of the final adoption of the control strategy.

We have no authority under the Act to approve as part of a federally enforceable SIP a provision that could render the SIP or any part of it unenforceable or void. Section 110(k)(3) of the Act authorizes us to approve a SIP if it meets all the applicable requirements of the Act, including the requirement of enforceable emission limitations under section 110(a) of the Act. Other than disapproving the escape clause as part of a partial disapproval of the SIP, our only option in the face of it is to disapprove the entire SIP, a course of action we are confident the State would not prefer us to take. Instead, by disapproving the escape clause, we are meeting the requirements of the Act and ensuring the federal enforceability of the approvable portions of the SIP, without in any way changing the substantive SIP requirements or creating new requirements. There may be some question about the State's ability to enforce the SIP if the escape clause is invoked. In our proposed rulemaking action, we stated that if any source invoked the escape clause, we would issue a SIP Call or take other appropriate action under the Act to address the resulting inadequacy of the State's plan.

This aspect of our partial disapproval does not impermissibly make the SIP more stringent than the State intended. Readers are referred to the discussion of the effect of our partial approval/partial disapproval in section V.E., above. The State carried out its intended allocation of the burdens of the control strategy when it established emission limitations for each of the sources in their respective stipulations. Our disapproval of the escape clause does not disturb these state decisions. The state-enforceable stipulations and all their terms and conditions, including the escape clause, remain in effect at the state level.

(2) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 123) stated that disapproval of the escape clause appears to be a usurpation of a court function by changing a contract, based on the representations of one party to the contract (apparently, referring to the State).

Response: To the extent that we understand the commenter, it appears to invoke the same concern referred to earlier that our action interferes with a private right of contract in violation of the Constitution. The reader is referred

to the discussion of constitutional challenges to our partial disapproval in section V.E., above. Alternatively, the commenter may object to our interpretation of the escape clause on the basis that the clause is a contractual right which only a court can interpret. In this rulemaking, we are interpreting the escape clause as a provision of the SIP which affects the adequacy of that plan, in light of the statutory criteria that govern our approval action. Courts have ruled that our interpretation of the provisions of SIPs is entitled to deference. *See, e.g., American Cyanamid Co. v. Environmental Protection Agency*, 810 F.2d 493, 498 (5th Cir. 1987); *American Lung Ass'n of N.J. v. Kean*, 670 F.Supp 1285, 1291 (D.N.J. 1987).

H. Language in ExxonMobil and MSCC Stipulations Related to Incorporation of Earlier Stipulation and Apportionment of the Airshed

We proposed to disapprove language in ExxonMobil and MSCC's stipulations related to incorporation of earlier stipulations and apportionment of the airshed.

Summary of Comments and Response

Two commenters opposed and one commenter supported our proposed action.

We have considered the comments received and still believe it is appropriate to disapprove the language in ExxonMobil and MSCC's stipulations related to incorporation of earlier stipulations and apportionment of the airshed.

The following is a summary of the comments received and our response to the comments:

(1) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 81) stated that our disapproval of the two provisions of the MSCC and ExxonMobil stipulations is inappropriate, because the State case and settlement agreement are legal facts; our disapproval overturns a state order by the MBER giving legal effect to the settlement and to MSCC's contract rights. Another commenter (ExxonMobil letter, document # IV.A-28) stated that they agreed that these references should be deleted from the EPA-approved SIP.

Response: Our disapproval of paragraphs 1 and 2 of the MSCC stipulation and paragraph 1 of the ExxonMobil stipulation does not overturn the order of the MBER and does not affect the State's agreement with ExxonMobil and MSCC. Excluding the reference to the board order from the EPA-approved SIP clarifies that the order is not federally enforceable,

thereby avoiding any confusion that might have ensued if we had included the reference in our approval. Our action does not adversely affect MSCC's contract rights, because it does not alter the settlement agreement.

(2) *Comment:* One commenter (MSCC letter, document # IV.A-20, comment # 13) stated that our disapproval of the reference to the 1996 settlement between MSCC, ExxonMobil, and Montana is a selective attempt to change the record in that case. The stipulation that resulted from the settlement is not void or fully accomplished. The commenter stated that if we believe that the reference should be removed because it is not needed, then we should disapprove every other detailed requirement not required by the Act and remand them all to the state.

Response: By disapproving the provisions related to the settlement agreement, we do not attempt to revise the record. The public record of the administrative case between MSCC, ExxonMobil, and the State is found in the state-adopted SIP, where the provisions are included in the MSCC and ExxonMobil stipulations. Our disapproval of these provisions does not hinge on whether or not the February 1996 stipulation was accomplished or was necessary. Our disapproval stems from our concern that including these provisions in the EPA-approved SIP might imply that the settlement agreement itself is federally enforceable. That result would be inappropriate, because we are disapproving two SIP elements that directly resulted from the agreement, the stack height demonstration and SO₂ control plan for MSCC with respect to the 100-meter stack. Approving the provisions that reference the State's agreement on these issues could create confusion about their possible federal enforceability and possibly conflict with our explicit disapprovals.

(3) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment #'s 14, 16, and 81) stated that our position that no federally cognizable right to emit exists is unreasonable; and that we have approved emission rights for some sources but not for MSCC. Another commenter (Goetz letter, document # IV.A-18, exhibit D, comment # VII, p. 65) stated that our proposal not to approve the part of ExxonMobil's and MSCC's stipulations related to apportionment of the airshed is improper. These commenters (MSCC letter, document # IV.A-19, comment #'s 43 and 51 and Goetz letter, document # IV.A-18, exhibit D, comment # VII, p. 65) stated that, contrary to our position that an implied

right to pollute conflicts with the Act, the Act itself provides for "emission rights" and property rights in airsheds through emission trading.

Response: In our proposed rulemaking action, we proposed to disapprove paragraph 1 of the ExxonMobil and MSCC stipulations for an additional reason, because the paragraph contained the statement that the companies were entering into the settlement agreement, in part, to preserve their respective "rights to apportionment of the airshed." See 64 FR at 40800. We declared that this statement conflicts with the purpose and obligations of the Act because air pollution sources do not have an ownership interest in the ambient air or a right to pollute under the Act. See *id.*

Our proposed disapproval of the statement about apportionment may not have been artfully expressed. We did not mean to imply that we do not recognize emission rights created by statute. The commenters are correct that the Act authorizes various kinds of emission rights. Section 110(a)(2) of the Act, for example, provides that SIPs may use "auctions of emissions rights" and other forms of emissions trading as an enforceable emission control technique; Title IV of the Act authorizes trading in emission allowances under the acid rain program. Permanent and enforceable emission reductions may also be sold as offsets for purposes of allowing sources to construct or modify under new source review under part C (attainment areas) and part D (non-attainment areas) of title I of the Act.

Such statutory rights to emit pollutants are not permanent, but may be changed by regulatory action. In a future SIP revision, the State might choose to redistribute some of the burden of SO₂ control in the Billings/Laurel area to achieve a different policy goal. Because the rights are created by and can be diminished by regulatory action, they are not the kind of private property protected under the Fifth Amendment to the Constitution. See the discussion of takings and emission rights in section V.E, above.

The phrase "rights to apportionment of the airshed" implies possessory rights to the ambient air, as if the State or the United States could allocate the atmosphere, like land or mineral rights, to competing claimants. We were concerned that the phrase might imply rights less conditional than those actually created under the Act and that, if we approved this language into the federally enforceable SIP, our approval might imply that ExxonMobil or MSCC have unconditional rights to emit at the levels established in the State

stipulations, regardless of the effect of our partial disapproval of the SIP.

I. Default Approval of SIP

We proposed action on the Billings/Laurel SO₂ SIP on July 28, 1999.

Summary of Comments and Response

One commenter submitted comments regarding default approval of the SIP.

We have considered the comments received and do not agree with the commenter.

The following is a summary of the comments received and our response to the comments.

(1) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment #'s 57 and 124) stated that more than one year has elapsed from the date of the Governor's submission of the SIP revisions for the Billings/Laurel area before we published the proposed rule to approve, disapprove, and conditionally approve the SIP. The commenter believes that our failure to take final action on the SIP may have resulted in automatic statutory approval of the submission. A proposed action is not a final action.

Response: The SIP revisions submitted by the State have not been approved by default. The requirements for our action on a SIP submission are found in section 110(k) of the Act. Section 110(k)(1) requires us to make a completeness finding within 60 days of receipt of a SIP or SIP revision, or the submission will be deemed complete six months after it is submitted. If the plan is complete, section 110(k)(2) requires us to take appropriate action within 12 months of the completeness finding or the date the submission is deemed complete. The Billings/Laurel SIP revisions were finally submitted on July 29, 1998. We did not make a completeness determination on this submission. The revision was deemed complete as a matter of law on January 29, 1999; the twelve-month deadline for action would be January 29, 2000. We proposed to approve the revisions in part, disapprove them in part, and conditionally approve other parts on July 28, 1999.

The commenter is correct that the deadline for action is met, not by publishing a proposed action, but by final rulemaking. The commenter is incorrect in suggesting that failure to meet the 12-month deadline means that the SIP submission is approved by default. The Act does not authorize default approval of a SIP; SIPs must be approved under sections 110(k)(3) and (4) of the Act. These provisions require our affirmative action to approve or disapprove through rulemaking, after

public notice and opportunity for comment.

J. Department Discretion

We proposed to partially approve the SIP because the State had addressed our earlier concerns with director discretion provisions in the SIP. Our proposal was based on the July 1998 submittal of the SIP and our interpretation of the modification process.

Summary of Comments and Response

One commenter opposed and two commenters supported our proposed action.

We have considered the comments received and still believe it is appropriate to partially approve the SIP as submitted since the State had addressed our earlier concerns with director discretion provisions.

The following is a summary of the comments received and our response to the comments:

(1) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 69) stated that it is unnecessary under the Act to obtain our approval for exercises of state discretion allowed by the SIP. The commenter believes that Montana should be free to implement changes as "necessary and expedient"; in the unlikely event Montana implemented a change which made the SIP inadequate, we could call for a SIP revision. The commenter objects to the "dual approval provisions" of the SIP as making the administrative change process unduly cumbersome. Two other commenters (Yellowstone Valley Citizens Council letter, document # IV.A-29, and Zaidlicz letter, document # IV.A-30) stated that we must review every SIP language change.

Response: Section 110(i) of the Act prohibits states and EPA, except in certain limited circumstances which do not apply to the Billings/Laurel SIP, from taking any action to modify a requirement of a SIP except by SIP revision. We do not agree that Montana or EPA should be free to make changes in SIPs whenever "necessary or expedient." The Act requires that changes in SIP requirements must be made by the SIP revision process, because that process gives the public the opportunity to review and comment on the reasonableness and adequacy of the requirements that are to be imposed, and gives us an opportunity to review and approve all changes.

The Billings/Laurel SIP allows for an informal administrative process for making certain clerical changes and for approving alternative requirements in the SIP, primarily with respect to monitoring. The State and we consider

these changes and approvals so insignificant that they may be made with our approval but without public review, without contravening the intent of section 110(i) of the Act. The SIP describes the process by which the State will propose such changes and approvals for us to review and approve before they can be implemented. If the process is used in accordance with the clarifications we made in our proposed rulemaking action (*See* 64 FR at 40796), we believe that it satisfies the intent of section 110(i). Any change that does not qualify for the informal approval process must be processed as a SIP revision under section 110(a)(2). EPA's "White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program" by Lydia N. Wegman, Office of Air Quality Protection and Standards, dated March 5, 1996, allows for an alternative mechanism for making changes to SIPs through the Title V permit process (attachment to document # II.C-8).

We will review all changes to the language and implementation of the Billings/Laurel SIP to ensure that they are the kinds of minor administrative changes that are appropriate to make without a SIP revision. This up-front process of review and approval will be less cumbersome for the State and regulated industry than having us undertake an after-the-fact inquiry into the appropriateness of a particular change and then initiate a SIP Call, if we identify an inadequacy.

K. Quarterly Data Recovery Rate (QDRR)

We proposed to approve the provisions pertaining to the quarterly data recovery rate (QDRR) for the CEMS because the State had addressed our earlier concerns with QDRR provisions in the SIP. Our proposal was based on the July 1998 submittal of the SIP and our interpretation of the QDRR requirements.

Summary of Comments and Response

One commenter opposed and four commenters supported our proposed action.

We have considered the comments received and still believe it is appropriate to partially approve the SIP as submitted since the State had addressed our earlier concerns with QDRR provisions.

The following is a summary of the comments received and our response to the comments:

(1) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 71) objected to a statement by MDEQ that obtaining data 100 percent of the time is required under the SIP. This

commenter believes that this statement is not what MSCC agreed to; data may not always be recoverable because of other requirements or events not under the reasonable control of the source. Two commenters (Yellowstone Valley Citizens Council letter, document # IV.A-29, and Zaidlicz letter, document # IV.A-30) stated that they support 100 percent CEMS availability, unless data loss is adequately justified. One commenter (ExxonMobil letter, document # IV.A-28) agreed with our assessment for QDRR. One commenter (McGarity letter, document # IV.B-1) stated that missing data must be heavily penalized and suggested that information on CEMS data availability should be instantaneously accessible to Yellowstone County residents so they can participate in the compliance assurance process. Finally, this commenter suggested that the regulated industry must be required to develop an approved Quality Assurance Control Plan (QAPP) for CEMS that addresses daily self zero and calibration auditing and annual RATA.

Response: We agree that CEMS should be in operation and their data retrievable at all times, unless failure to operate or other loss of data is adequately justified. QDRR is the percentage of the time in each quarter when CEMS are operating and generating valid hourly data about SO₂ emissions. The stipulations entered into between the State and each source in the Billings/Laurel area originally set a QDRR of 90 percent and an allowance of up to 192 hours per quarter when CEMS data could be unavailable without the State taking enforcement action. Given the high reliability of CEMS when they are operated properly, we believe that the goal for CEMS data recovery should be 100 percent. Anything less than that should be excused only if the loss of data has been documented and justified.

In the final version of the SIP, the State deleted the allowance for 192 hours of missing CEMS data per quarter and explicitly required the sources to use "best efforts" to achieve the highest QDRR that would be technically feasible. The 90 percent QDRR remains in the stipulations as a trigger level for state action as an assumed level of technical feasibility. The State, EPA, and citizens can still take action to enforce the CEMS data requirement when a source has met the 90 percent QDRR but is missing ten percent or less of CEMS data for a quarter; *i.e.*, when its data recovery rate is greater than 90 but less than 100 percent. The source must show that the data loss was documented at the time it occurred and was justified,

for example, because it was caused by a lightning strike, electrical power outage, or other circumstance beyond the operator's control.

With respect to the QAPP, auditing and annual RATA comment, the exhibit to the stipulations, and an attachment to the exhibit, for each source contain CEM performance specification requirements for the SO₂ and H₂S CEMS and flow meters. These requirements include daily testing and annual RATAs. In addition to the exhibit requirements for CEMS and flow meters, other documents addressing CEMS operations are to be developed. These documents include quality assurance plans and standard operating procedures. These other documents are not being included in the SIP. *See* discussion in section M below.

L. Effect of the Montana Voluntary Environmental Audit Act

We stated in our proposed rulemaking that Montana's audit privilege and penalty immunity law, the Voluntary Environmental Audit Act, Mont. Code Ann. §§ 75-1-101 *et seq.* (1999), (H.B. 293, effective October 1, 1997) can affect only state enforcement and cannot have any impact on federal enforcement authorities. We stated that our proposed action should not be construed as making any determination or expressing any position regarding the State's audit privilege and penalty immunity law.

Summary of Comments and Response

One commenter expressed an opinion of how the State should implement its audit privilege and penalty immunity law and EPA oversight of the SIP.

We have considered the comment received and believe our statements in our proposed rulemaking action on the State's audit privilege and penalty immunity law are still appropriate.

The following is a summary of the comments received and our response to the comments:

(1) *Comment:* One commenter (Yellowstone Valley Citizen's Council letter, document # IV.A-29) stated that the State should implement Montana's Environmental Voluntary Audit Act ("Audit Law") in a manner that prevents violations of federal law, and that we should be vigilant in oversight of state enforcement of the SIP in cases where alleged polluters invoke the immunity provisions of the Audit Law.

Response: Our concerns about the effect of the Audit Law on the State's ability to enforce the SIP have been addressed by a formal agreement with the State. On December 13, 1999, EPA and the State entered into a Memorandum of Agreement ("MOA")

(see document # IV.C-32) concerning the effects of the Audit Law on state implementation and enforcement of all federal environmental programs in Montana. EPA and the State agreed that, as long as the State's legal interpretation of the Audit Law (as memorialized in a November 25, 1998 letter from Governor Marc Racicot and Attorney General Joseph Mazurek to EPA Regional Administrator William P. Yellowtail) and the MOA are in effect, State programs have sufficient authority to maintain or obtain delegation of federal environmental programs. The MOA resolved any outstanding issues between the State and EPA concerning our delegation or approval of federal programs in the state of Montana, including SIP approvals. In our proposed rulemaking action, we declared that the Audit Law affected only state enforcement authorities and had no effect on the ability of EPA or citizens to enforce the SIP under relevant provisions of the Act. See 64 FR at 40804. This view continues to be true. We agree with the comment that we should exercise our oversight role with particular care when the Audit Law is invoked by an owner or operator of a source seeking immunity from civil or administrative penalties for violation of the Billings/Laurel SIP.

M. Effect of State-Only Provisions

We stated in our proposed rulemaking that we were not acting on State-only provisions that were not submitted as part of the SIP. However, if we were to determine that the State-only provisions, as implemented, appeared to constrain, or otherwise have a chilling effect on the State enforcement of the SIP, we would reconsider our approval or take other appropriate action under the Act.

Summary of Comments and Response

One commenter expressed a concern that the State-only provisions might create loopholes for industrial sources to avoid enforcement.

We have considered the comments received and believe our statements in our proposed rulemaking action on the State-only provisions are still appropriate.

The following is a summary of the comments received and our response to the comments:

(1) *Comment:* One commenter (Yellowstone Valley Citizen's Council letter, document # IV.A-29) stated that the placement of certain technical aspects of monitoring requirements and the flare provisions in a "state-only" section of the stipulations created potential loopholes for the industrial

sources to avoid enforcement. The commenter expressed concern that other technical issues might be hiding in the state-only stipulations.

Response: The "Additional State Requirements" adopted by the MBER in June 1998 include documents that were not incorporated into the SIP submitted to us for approval in July 1998. These documents include quality assurance plans and standard operating procedures manuals for the CEMS for the Billings/Laurel sources, together with corrective actions plans and alternative monitoring plans. We believe that the exclusion of these documents from the federally enforceable SIP will not have an adverse effect on the implementation or enforcement of SIP requirements. We believe that the opposite could be true: inclusion of the documents in the federally enforceable SIP might have adversely impacted the ability of EPA and citizens to enforce the SIP, because the documents contain department discretion provisions which could potentially constrain enforcement efforts. For that reason, in our proposed rulemaking action we expressed our concern that the state-only provisions related to CEMS might limit or have a chilling effect on state enforcement of the SIP and our intention to take appropriate action under the Act, if we found that were true. See 64 FR at 40803-40804. We intend to address the exclusion of flare provisions from the SIP in a future FIP, as discussed in section V.C., above. We are unaware of any other technical issues or potential loopholes that might be contained in the state-only provisions.

N. Enforcement and MDEQ Staffing

In our Technical Support Document for our proposed Action on the Billings/Laurel SO₂ SIP (document # III.B-1), we proposed to approve the Billings/Laurel SO₂ SIP as meeting the "enforcement program and stationary source regulations" requirements.

Summary of Comments and Response

Three commenters expressed the concern that MDEQ lack sufficient resources to adequately implement and enforce the SIP.

We have considered the comments received and still believe it is appropriate to conclude that the Billings/Laurel SO₂ SIP meets the "enforcement program and stationary source regulations" requirements.

(1) *Comment:* Three commenters expressed the concern that MDEQ lacks sufficient resources to adequately implement and enforce the SIP. Two commenters (Yellowstone Valley Citizen's Council letter, document

IV.A-29, and Zaidlicz, document # IV.A-30) stated that we must insure that the SIP is enforceable and that the State will have adequate resources allocated to effectively implement, monitor and police it. One of these commenters stated that two MDEQ staff members are responsible for the enforcement of air quality standards for eastern Montana, where 70 percent of the air pollution sources and most of the CEMS are located, and that the workload is too great for two people. This commenter also indicated they supported a bill in the last Montana legislative session to increase staff in eastern Montana, but MDEQ testified against the bill and it was defeated. Finally, this commenter stated that we should monitor SIP implementation carefully to safeguard the goal of improving air quality in the Billings/Laurel area. The other commenter expressed the concern that the MDEQ does not have adequate resources and staff to track compliance and maintenance of the Billings/Laurel SIP and other federally mandated air quality programs being delegated for state jurisdiction and that this puts human health and safety in jeopardy.

Another commenter (McGarity letter, document # IV.B-1) stated that turnover and low staff salaries have left MDEQ in a shambles; MDEQ staff is under-resourced and over-worked, and cannot be counted on to develop and enforce complicated compliance plans. This commenter urged us to keep it as simple as possible—no "bells," no "whistles," and no parametric monitoring with statistical averaging over ill-defined periods of time. This commenter also stated that we should seriously consider assuming SO₂ program responsibility until the MDEQ is in a position to do an adequate job.

Response: Congress intended that states have primary responsibility for implementing and enforcing their SIPs. We have an oversight secondary role and may take enforcement action under section 113 of the Act for violation of a SIP when a state does not take action or when its action is considered ineffective. We intend to carry out our oversight responsibility with particular care in the Billings/Laurel area, where we have already identified potential concerns about the practical enforceability of certain provisions of the SIP.

We have regular meetings with MDEQ to discuss all compliance issues related to the Act. We review facilities with identified violations and discuss the State's proposed or on-going action to address these violations. There is no indication at this time that MDEQ is failing to meet its responsibility to

monitor compliance and take appropriate enforcement with respect to the federally enforceable SIP. These Billings/Laurel SIP revisions have not been subject to our oversight until now, when this final partial approval will make most of the provisions federally enforceable. We will oversee the State's efforts to monitor compliance with the new requirements after today's final rulemaking, with particular emphasis on the variable emission limitations and the effects of state-only provisions, which were identified in our proposed rulemaking. See 64 FR at 40794–40795 and 40803–40804. If we find that the State lacks adequate resources to pursue any violation of the Billings/Laurel SIP or if a state enforcement response is inadequate, we will take appropriate action.

O. Reasonably Available Control Measures (RACM) Including Reasonably Available Control Technology (RACT) and Reasonable Further Progress (RFP) at CENEX

We proposed to conclude that the RACM (including RACT) requirements have not been met in the Laurel SO₂ nonattainment area.

Summary of Comments and Response

Two comment letters contained comments pertaining to our proposal on RACM (including RACT) and RFP. The two commenters stated we should not be disapproving the SIP as it pertains to these requirements.

We have considered the comments received and still believe it is appropriate to conclude that the RACM (including RACT) requirements have not been met in the Laurel SO₂ nonattainment area.

The following is a summary of the comments received and our response to the comments:

(1) *Comment:* One commenter (Cenex letter, document # IV.A–26) stated that since our concern regarding flares is a non-issue the Laurel area has demonstrated compliance with the SO₂ NAAQS and RACM/RACT and RFP have been met.

Response: We do not believe our concerns regarding flares are a non-issue. We still believe the attainment demonstration is not approvable without enforceable emission limitations on flares. See our response to flare-related comments in section V.C., above. As indicated in our TSD (document # III.B–1), for SO₂ we interpret RACM (including RACT) as those control measures that are necessary for attainment of the NAAQS. Section 171(1) of the Act defines RFP as the “annual incremental reductions in

emissions * * * which are required for purpose of ensuring attainment of the applicable NAAQS by the applicable date.”

Since we believe that the State has not demonstrated attainment of the SO₂ NAAQS in Laurel because the SIP lacks enforceable limitations for flares, we believe it is necessary to conclude that the RACM (including RACT) and RFP requirements have not been met.

(2) *Comment:* One commenter (MSCC letter, document # IV.A–19, comment # 109) stated that proposing to disapprove the attainment demonstration is not related to determining that RACM/RACT have not been met.

Response: See response to comment (1) above

(3) *Comment:* One commenter (MSCC letter, document # IV.A–19, comment # 110) stated that Laurel is in compliance with the NAAQS, that modeling shows attainment of the NAAQS in Laurel, and that our dissatisfaction with the Billings model should not impact our determination about RFP.

Response: See response to comment (1) above. Additionally, our disapproval of the attainment demonstration is not based entirely on the Billings stack height issue. Therefore, the Billings area modeling is not the sole reason why we believe it is necessary to conclude that the RFP requirements have not been met.

P. MSCC'S Auxiliary Vent Stacks

We proposed to disapprove the emission limitation on the auxiliary vent stacks because the SIP does not restrict the type of fuel burned in the boilers and heaters when they are exhausting out the auxiliary vent stacks.

Summary of Comments and Response

Three commenters submitted comments on our proposed action. One commenter believes that adjustments should be made to MSCC's exhibit and the other commenters believe we are being overly burdensome.

We have considered the comments received and still believe it is appropriate to disapprove the emission limitation on the auxiliary vent stacks because the SIP does not restrict the sulfur content of the fuel burned in the boilers and heaters when they are exhausting out the auxiliary vent stacks and does not contain a monitoring method that would make the emission limitation practically enforceable.²¹

²¹ In our proposed action on MSCC's auxiliary vent stacks we indicated that we believed it was appropriate to disapprove the emission limit on the

The following is a summary of the comments received and our response to the comments:

(1) *Comment:* One commenter (Simonich letter, document # IV.A–23, comment # 4C) agrees that adjustments should be made to the SIP to address auxiliary vent stacks.

Response: We agree with the commenter.

(2) *Comment:* The other commenters (Goetz letter, document # IV.A–23, exhibit C; MSCC letter, document # IV.A–19, comment #'s 68, 80, 121; MSCC letter, document # IV.A–20, comment # 10B) stated that the auxiliary vent stack sources are trivial and even if the limitations were exceeded this would not harm the attainment of the NAAQS since these vents are not contributing to the controlling receptor. One of the commenters (MSCC letter, document # IV.A–19, comment #'s 80, 121; MSCC letter, document # IV.A–20, comment # 10A) stated that our concern regarding the potential for the auxiliary vent stacks to exceed their emission limitation if fuel high in H₂S were burned is not unique to MSCC. The commenter stated we should strike the limitation rather than add more burdens to the source. Commenters (MSCC letter, document # IV.A–19, comment # 10C; Goetz letter, document # IV.A–23, exhibit C) stated that having an emission limitation invites the question of how are the emissions to be monitored and enforced, how is the gas to be determined to be low sulfur or sweetened. One commenter (MSCC letter, document # IV.A–19, comment #'s 10D, 10E) indicated that we never raised this issue in prior discussions and that other local vents in Yellowstone County are not covered by federally enforceable limitations.

Response: Although the commenter believes the auxiliary vent stack emissions are trivial, we assume that emission limitations on the auxiliary vent stacks, along with the other emission limitations in the SIP, were established to assure attainment of the NAAQS. Therefore, we also assume that if any of the limitations are exceeded, attainment of the NAAQS cannot be assured. Regardless of whether the

auxiliary vent stacks because the SIP did not restrict the type of fuel burned in the boilers and heaters when exhausting out the auxiliary vent stacks. After reviewing the comments received on our proposed action of MSCC's 30-meter stack emission limit (see comments and responses in V.Q., below), we still believe the auxiliary vent stack emission limitation should be disapproved. However, in lieu of restricting the type of fuel burned, we believe the SIP should restrict the sulfur content of the fuel burned and provide a method for measuring the sulfur content of that fuel, i.e., make the emission limit practically enforceable.

auxiliary vent stack emission limitations are needed for attainment, the State included the auxiliary vent stack emission limitations in the SIP as an enforceable control strategy. We are concerned whether the emission limitations are truly enforceable and want to assure that they are. There may be other local vent stacks in the Yellowstone County area that do not contain specific emissions limitations in the SIP. We believe the SIP does not need to contain emission limitations on other local vent stacks but does need to contain emission limitations on the MSCC auxiliary for two reasons. First, the MSCC auxiliary vent stacks are part of a major source that is already being controlled in the SIP. Second, we assume that the other local vent stacks are truly minor sources and all these other minor sources' (e.g., local vent stacks) emissions have been included in the background concentration used in modeling. We typically include minor emission points (where the emission point is the entire source) in the background concentration.

The commenter stated that the potential to violate the auxiliary vent stack emission limitation if it burns fuel high in H₂S is not unique to MSCC. We are assuming that the commenter means that other sources could burn fuel high in H₂S and violate their limitations. Although this is true, other sources controlled by the SIP have CEMS or other methods to measure H₂S or sulfur content in fuel burned and flow of the fuel to heaters and boilers. Therefore, for the other sources there is a better tool to assess whether emission limitations are being met.

We realize that the emissions from the auxiliary vent stacks at MSCC are not large. However, to assure that the emission limitation is being met, we believe the sulfur content of fuel burned in the heaters and boilers, when they are exhausting through the auxiliary vent stacks, should be restricted and that compliance with the emission limitation should be monitored by measuring the H₂S concentration in the fuel. The MSCC exhibit submitted as part of the SIP already contains reporting provisions that require MSCC to submit quarterly reports which include estimates of the 3-hour and 24-hour SO₂ emissions from the 30-meter stack and auxiliary vent stack (see document II.E-2, sections 7(C)(1)(k) and (l) of the MSCC exhibit). MSCC will need to know the H₂S concentration of the fuel burned in the boilers and heaters to be able to estimate the 3-hour and 24-hour SO₂ emissions from the auxiliary vent stacks. We do not envision that restricting the sulfur content of fuel

burned in the boilers and heaters when they are venting out the auxiliary vent stacks and monitoring the H₂S concentration of the fuel burned will impose unduly burdensome compliance or reporting requirements on MSCC.

Finally, we agree that we may not have raised this issue in prior comments we provided the State on the SIP. We try to identify all our concerns with SIPs when we review them in draft form. However, just because we have not identified a potential problem with a draft SIP does not preclude us from addressing that concern when the SIP is submitted in final form. We understand that the earlier MSCC exhibits (those submitted prior to the July 1998 submittal) adopted by the State did not contain provisions to address the auxiliary vent stacks. Thus, we did not have the chance to raise the issue until after the SIP was submitted.

Q. MSCC's 30-Meter Stack

We proposed to approve the SIP as it applies to MSCC's 30-meter stack emission limitation for SO₂, even though the 30-meter stack does not have a CEMS or parametric monitoring system. Our proposed approval relied on the fact that the SIP restricts the units that can exhaust through the 30-meter stack to certain boilers and heaters, which may only burn low sulfur fuel gas or natural gas. We believed that the fuel limitation on the boilers and heaters would assure compliance with the emission limitation. The sulfur concentration in natural gas is generally low enough, we believe, to assure compliance with the SO₂ limitation. However, as we stated in our proposal, we were concerned that the SIP does not provide a definition of the term "low sulfur fuel gas." We proposed to interpret the term "low sulfur fuel gas" to mean "properly sweetened fuel gas." The MDEQ indicated to us that MSCC supplies the same sweetened refinery fuel gas it burns in its boilers and heaters to the ExxonMobil refinery, and that concentrations of H₂S in the refinery fuel gas at ExxonMobil measure less than 100 ppm under normal operating conditions. Our proposed approval thus relied on our interpretation of the term "low sulfur fuel gas" and some assurance about the levels of H₂S in the fuel gas MSCC burns in its boilers. In our proposal, we stated that we might create a definition for the term "low sulfur fuel gas" when we promulgated a FIP to fill in the gaps for SIP provisions we were proposing to disapprove.

Summary of Comments and Response

We received two comments pertaining to our interpretation of "low sulfur fuel gas." One commenter suggested that we approve a specific definition of the term, while the other commenter objected to our interpretation.

We have considered the comments received and, on further investigation, conclude that our interpretation of the term "low sulfur fuel gas" to mean properly sweetened fuel gas is not sufficient to assure compliance with the 30-meter stack limitation at MSCC. Because the 30-meter stack lacks a CEMS, parametric monitoring system, or other reliable compliance monitoring method, in this final action we are limitedly approving the emission limitation on the 30-meter stack for its strengthening effect on the SIP, but are limitedly disapproving the limitation for its lack of a compliance monitoring method.

The following is a summary of the comments received and our response to the comments:

(1) *Comment:* One commenter (Zaidlicz letter, document #IV.A-30) stated that the definition of "low sulfur content" should be no more than 30 ppm, rather than the proposed 100 ppm.

Response: In our proposed approval we did not assign a numerical value to the term "low sulfur fuel gas." Instead, we relied on an interpretation of the term as meaning "properly sweetened fuel gas" that has been treated in an amine unit to remove H₂S. In acting on a submitted SIP revision, we can only approve or disapprove the requirements the State has adopted in the SIP. We have no authority, as part of our approval or disapproval under section 110(k) of the Act, to create a definition for an undefined term in the SIP.

In response to the comment, we investigated further to determine what level of H₂S concentrations would assure compliance with the 30-meter stack limitation in the "worst case." The State provided calculations to show the H₂S concentration in fuel gas that MSCC would need to achieve in order to meet the 30-meter stack emission limitation if all of the boilers and heaters allowed to vent to the 30-meter stack were venting at the same time (see document # IV.C-23). The State found that, to meet the emission limitation under these conditions the maximum H₂S concentration could not exceed 280 ppm, assuming a nominal fuel gas value of 1,000 Btu's per standard cubic foot (Btu/scf). The calculations indicate, however, that the nominal fuel gas value at MSCC could be between 350 and 1500 Btu/scf. We re-ran the calculations,

assuming a worst-case nominal fuel gas value of 350 Btu/scf. We found that, in order to meet the 30-meter stack emission limitation when all five boilers and heaters are venting to the 30-meter stack at that nominal fuel gas value, the maximum H₂S concentration could not exceed 100 ppm (*see* document # IV.C-24).²² Thus it is not necessary to restrict the concentrations to 30 ppm or less. The problem remains, however, that “low sulfur fuel gas” is not defined in the SIP as meaning fuel gas with H₂S concentrations of 100 ppm or less. In addition, MSCC does not have a monitoring system to measure H₂S concentrations in its fuel gas.

(2) *Comment:* The other commenter (MSCC letter, document # IV.A-19, comment # 78; MSCC letter, document # IV.A-20, comment #11) objected to our interpretation regarding “properly sweetened fuel gas.” The commenter stated that our interpretation is unnecessary and leads to further confusions. According to this commenter, even if the gas were not properly sweetened, the stack could still meet its limit. The commenter believes that MSCC has agreed not to vent the prior high SO₂ emissions from the 30-meter stack, and that should be sufficient for purposes of SIP approval. The commenter also believes that it is “beyond reason” to even limit the 30-meter stack and that we should disapprove the SIP for establishing a limitation on such a minor source. The commenter stated that the concept was to be gas meeting the terms of the Montana sulfur in fuel rule, as clarified by the stipulation.

Response: The commenter stated that it is unreasonable to even limit the emissions from the 30-meter stack, because they are so minor. We assume that the emission limitation on the 30-meter stack, along with the other emission limitations in the SIP, was established to assure attainment of the NAAQS. Therefore, we also assume that if any of the emission limitations are exceeded, attainment of the NAAQS cannot be assured. Regardless of whether the 30-meter stack emission limitation is needed for attainment, the State believed it was necessary to include the limitation in the SIP as an enforceable control strategy.

Generally, when emission limitations are established in SIPs, we require that the SIP contain methods to assure that the limitations are being met and are enforceable. For the 30-meter stack limitation, the SIP requires that MSCC report the date and time when emissions are exhausted from the stack, the particular units that are exhausting from the stack, and engineering estimates of emissions from the stack. More specifically, the SIP limits the units (the particular boilers and heaters) that can exhaust from the stack and the type of fuel (“low sulfur fuel gas” or natural gas) the boilers and heaters can burn when they are exhausting out the 30-meter stack. We recognize that the emissions from the 30-meter stack are not large. Nonetheless, in order to assure that the emission limitation is being met at all times, we believe that the type of fuel burned in the boilers and heaters when they are exhausting through the 30-meter stack would need to be limited and better defined.

Our proposed approval of MSCC’s 30-meter stack limitation relied on our interpretation of the term “low sulfur fuel gas” as meaning “properly sweetened fuel gas” which has been treated in an amine unit to remove hydrogen sulfide. Both comments called this interpretation into question. When we investigated further, we determined that compliance with the 30-meter stack limitation can be assured if the fuel gas burned in the boilers and heaters that exhaust to the stack is limited to H₂S concentrations of 100 ppm or less (*see* document #’s IV.C-23 and IV.C-24).²³ Not only is an interpretation or definition of the term “low sulfur fuel gas” necessary to assure compliance with the 30-meter stack emission limitation, the interpretation or definition must also incorporate the notion that “low sulfur” fuel gas has H₂S concentrations of 100 ppm or less. MSCC, however, lacks a monitoring system to measure H₂S concentrations in the fuel gas burned in the boilers and heaters that vent to the 30-meter stack, and so lacks a method to assure that only “low sulfur fuel gas” is being burned.

We tried to determine if an alternative method of measuring H₂S concentrations could be used. In its September 3, 1998 letter, the State indicated that MSCC burns the same sweetened refinery fuel gas in its boilers and heaters that it returns to ExxonMobil, implying that the H₂S concentration of the refinery fuel gas burned in MSCC’s heaters and boilers would be equivalent to the H₂S

concentration measured in ExxonMobil’s refinery fuel gas (*see* document # II.E-9). According to the letter, available data from ExxonMobil’s H₂S monitors show that ExxonMobil’s refinery fuel gas rarely exceeds 100 ppm H₂S. However, we have since learned that, before ExxonMobil measures the H₂S concentration, it may dilute the refinery fuel gas it receives from MSCC with natural gas (*see* document # IV.C-25). The H₂S concentration measured in ExxonMobil’s refinery fuel gas thus could be lower than the H₂S concentration in the fuel gas burned in MSCC’s heaters and boilers. As a consequence, the H₂S concentration of ExxonMobil’s refinery fuel gas cannot be used as an indicator of the H₂S concentration of fuel gas burned in MSCC’s heaters and boilers; the H₂S monitoring system at ExxonMobil will not serve to assure compliance with the emission limitation on MSCC’s 30-meter stack.

The commenter stated that the intention was that the gas would meet the terms of the Montana sulfur in fuel rule as clarified by the stipulation. Montana’s sulfur in fuel rule, found in the Administrative Rules of Montana (ARM) 17.8.322, limits the sulfur content of liquid, solid or gaseous fuels burned. MSCC’s stipulation, paragraph 14, modifies ARM 17.8.322 to “mean that no person shall burn solid, liquid, or gaseous fuels such that the aggregate sulfur content of all fuels burned within a plant during any day exceeds one pound of sulfur per million BTU fired. The rule shall be interpreted to allow for a daily deviation of 0.1 pound of sulfur per million BTU fired. The rule shall be interpreted to allow the blending of all fuels burned in a plant during a given time period in determining the aggregate sulfur content for purposes of the rule, and it shall not be construed to require the blending or physical mixing of fuels at any given furnace or heater within the plant complex.” Because MSCC’s stipulation modifies how ARM 17.8.322 is interpreted, we do not understand how relying upon the “modified” rule would address our concern. Specifically, MSCC’s stipulation interprets ARM 17.8.322 as applying on a “plant-wide” basis. Therefore, boilers and heaters not vented to the 30-meter stack would be considered in determining whether the sulfur in fuel meets the rule. Additionally, MSCC’s stipulation indicates that the sulfur in fuel requirement is a “daily” requirement. MSCC could not assure compliance with a 3-hour emission limit based on a daily requirement. Finally, even if the sulfur in fuel rule is

²² Our calculations were based on information received from the DEQ on April 21, 1998 (document # IV.C-23). However, based on MDEQ’s Operating Permit Technical Review Document for MSCC’s Title V permit, the fuel burning potential of boilers H-1, H1-A, H1-1, and H1-2, which may exhaust to the 30-meter stack, may be underestimated by 15 percent or more (document # IV.C-75). Therefore, the H₂S concentration of the fuel gas may need to be less than the 1000 ppm we calculated for the 30-meter stack emission limit to be achieved.

²³ *See* footnote 22.

controlling, the sulfur content in the fuel would still need to be determined to assure compliance with the sulfur in fuel rule.

In response to the comments received and as a result of further investigation of the issue, we conclude that the emission limitation for MSCC's 30-meter stack is not practically enforceable. The limitation on fuel for the heaters and boilers that vent to the stack is not adequate to assure compliance with the emission limitation, because the fuel limitation does not specifically limit the level of H₂S in the fuel and, in any case, MSCC lacks a method for measuring H₂S concentrations in the fuel. We are limitedly approving the emission limitation for the 30-meter stack for its strengthening effect on the SIP, but are limitedly disapproving the limitation for the lack of a compliance monitoring method that would make the emission limitation practically enforceable. In a later action, we intend to develop and promulgate a compliance monitoring method for the emission limitation for MSCC's 30-meter stack, when we complete a FIP to fill in the gaps for the SIP provisions we are disapproving today.

R. ExxonMobil's and CENEX'S Refinery Fuel Gas Limitation

We proposed to conditionally approve the SIP as it applies to ExxonMobil's refinery fuel-gas combustion emission limitations and attendant compliance monitoring methods, in sections 3(A)(1), 3(B)(2), 4(B), and 6(B)(3) of ExxonMobil's exhibit, because the Governor committed to address our concerns with the method for monitoring compliance with the emission limitation. We also proposed to approve Cenex's method for determining H₂S in the refinery fuel gas.

On May 4, 2000 the Governor of Montana submitted a SIP revision to fulfill the commitments on which the proposed conditional approval was based.

Summary of Comments and Response

Five comment letters contained comments on our proposed action. Three commenters believe we should place more requirements on sources. One commenter agreed with our proposed conditional approval and one commenter sought further clarification on several issues discussed in our TSD.

We have considered the comments received. However, since the Governor has fulfilled his commitment, we believe it is not appropriate to finalize the conditional approval. Instead, we

will complete notice-and-comment rulemaking on parts of the July 29, 1998 submittal (*i.e.*, those parts we proposed to conditionally approve on July 28, 1999) and all of the May 4, 2000 submittal.

Even though we intend to complete separate rulemaking action on parts of the July 29, 1998 and all of the May 4, 2000 submittal, below we are responding to the comments received:

(1) *Comment:* Two commenters (YVCC letter, document # IV.A-29; Zaidlicz letter, document # IV.A-30) stated we should set an H₂S limitation of 160 ppm (NSPS) on refinery fuel gas burned in heaters and boilers; sources can meet a lower level. These commenters also stated that methods for determining compliance with SO₂ emission limitations (H₂S concentration and flow meters) can be nebulous and may be subject to error particularly when the H₂S concentrations exceed the level at which the H₂S CEMS can monitor and manual methods are used to determine compliance. One commenter (McGarity letter, document # IV.B-1) stated industry should be required to accept either fuel firing limitations on process heaters and boilers or H₂S concentration limitations (*e.g.*, 160 ppm H₂S).

Response: Two commenters stated our proposed action should go further by setting H₂S limitations on refinery fuel gas. As part of our proposed action on the SIP, we cannot establish limitations more stringent than the State submitted as part of its SIP. Under the SIP process, we evaluate the State submittal to see if it meets the requirements of the Act. We proposed to approve those provisions that meet the Act and proposed to disapprove or conditionally approve those provisions that do not measure up to the Act's requirements.

In the case of ExxonMobil's refinery fuel-gas combustion emission limitation, the State has modeled this limitation, along with other enforceable limitations in the SIP, and determined that the area will attain the NAAQS. Under this SIP, we cannot require the State to do more than adopt enforceable measures that will assure attainment of the NAAQS.

These commenters also stated that the methods to determine compliance with the fuel gas combustion emission limitations are nebulous particularly when the H₂S CEMS are over-ranged. We assume that the commenters are referring to our proposed approval of Cenex's method to determine H₂S in the refinery fuel gas. Cenex is to use CEMS to determine H₂S concentrations.

During times when the H₂S concentration exceeds the range the H₂S

CEM can monitor, Cenex is to initiate fuel gas sampling analysis on a once per three hour period sampling frequency using the Tutwiler method in 40 CFR 60.648 (or another method approved by the MDEQ and EPA) to determine the H₂S concentration.

We cannot require that CEMS always be used to monitor compliance with emission limitations; other methods, if proven acceptable, can be used. The CEMS and the Tutwiler method are methods that have been adopted by us. Additionally, when the Tutwiler method is used, Cenex's exhibit requires that it initiate fuel gas sampling analysis on a once every three-hour period sampling frequency. Therefore, every three hour period will be analyzed to monitor whether or not Cenex is in compliance with its fuel gas combustion emission limitation. We understand that the frequency at which the H₂S CEMS frequency is over-ranged is very low. Therefore, we believe the CEMS and the Tutwiler method (used when the H₂S concentration exceeds the level at which the H₂S CEMS can monitor), with 3-hour sampling, are acceptable methods to monitor compliance with the emission limitations.

(2) *Comment:* One commenter (ExxonMobil letter, document # IV.A-28) stated it is appropriate to conditionally approve its fuel gas combustion emission limitation and attendant compliance monitoring method.

Response: As mentioned above, since the Governor has fulfilled his commitment, we are not finalizing the conditional approval. Instead, we will complete separate rulemaking action on parts of the July 29, 1998 submittal (*i.e.*, those parts we proposed to conditionally approve on July 28, 1999) and all of the State's May 4, 2000 submittal.

(3) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment #'s 73, 74) wanted clarification on what we meant when we indicated that 800 ppm is not controlling at ExxonMobil and its significance. The commenter stated that the State determined that the analyzer range is significant for its purposes. Secondly, the commenter wanted to know what we meant when we alleged that ExxonMobil exceeded its fuel gas limitation due to problems at MSCC.

Response: The commenter is correct that the State has determined that the analyzer range is sufficient. In the State's May 4, 2000 submittal, the State has not revised ExxonMobil's exhibit to address our concerns. We will address the May 4, 2000 submittal in a separate rulemaking action.

One commenter wanted clarification on what we meant when we indicated that 800 ppm is not controlling at ExxonMobil, and the significance of that. The SO₂ SIP limits the SO₂ emissions from combustion sources, *not* the concentration of H₂S or other sulfur compounds in the fuel burned. In the case of fuel gas combustion sources, compliance with the limitation is monitored by knowing the concentration of H₂S in the fuel and the flow of the fuel to the combustion sources (H₂S concentration * flow rate * constant = lbs SO₂/hour). We learned, however, that there could be situations when the H₂S concentration in the fuel gas could exceed the level at which the H₂S CEMS could monitor. Therefore, sources could be exceeding the fuel gas combustion limitation and the State and EPA wouldn't know because the H₂S CEMS would not record the true H₂S concentration. We generally believe section 110(a)(2)(A) of the Act requires that emissions limitations in SIPs be enforceable at all times.

For Cenex, the SIP contains an alternative method to determine H₂S concentrations when H₂S concentrations exceed the level the H₂S CEMS can monitor. For Conoco, we were less concerned about the range of concentrations the H₂S CEMS could monitor because all of Conoco's boilers and heaters are limited by either new source performance standards (NSPS) or a permit to a level equivalent to NSPS (*i.e.*, 160 ppm of H₂S). Therefore, Conoco's H₂S CEMS may only be spanned to read to 300 ppm and that is acceptable because any reading over 150 ppm would be considered a violation.

Although ExxonMobil has spanned its H₂S CEM to read between 1200 to 1300 ppm, we understand that there still could be situations when the fuel gas could exceed the level at which ExxonMobil's H₂S CEMS can monitor. Also, there are no regulations or permits that require ExxonMobil to limit the H₂S ppm concentration in the refinery fuel gas combusted in ExxonMobil's heaters and boilers. At one point, the State believed its sulfur-in-fuel regulation would require ExxonMobil to meet an H₂S concentration of 800 ppm in the refinery fuel gas. However, the Billings SIP modifies how the State's sulfur-in-fuel rule applies at the Billings/Laurel sources and ExxonMobil is not required to meet the H₂S limitation of 800 ppm in its refinery fuel gas.

The commenter also wanted to know what we meant when we alleged that ExxonMobil exceeded its fuel gas limitation due to problems at MSCC. In our TSD (*see* document # III.B-1), we

indicated that we were aware that on several occasions during the summer of 1998, ExxonMobil exceeded its fuel gas combustion limitation due to problems either at MSCC *or with ExxonMobil's amine unit*. We became aware of the emission limitation exceedance based on three letters ExxonMobil sent to the MDEQ, on September 14, October 1, and October 30, 1998 (*see* document #'s IV.C-19, 20 and 21, respectively). In those letters, ExxonMobil indicated that on two separate occasions (one in July and one in August, 1998) its fuel gas was not being properly treated. On one occasion, MSCC was performing maintenance and ExxonMobil was switching to its backup amine unit when ExxonMobil found that its fuel gas was not properly treated. On the other occasion, a thunderstorm caused a local power outage. MSCC was unable to treat ExxonMobil's refinery fuel gas for 74 minutes. Those were the situations we were referring to in our TSD.

S. Variable Emission Limitations

We proposed to approve the SIP as it applies to the variable emission limitations at Montana Power and ExxonMobil. We proposed to disapprove the SIP as it applies to the variable emission limitations at MSCC due to the stack height issue. Our proposed approval for Montana Power and ExxonMobil's variable limitation had several caveats. If we were to find that the variable emission limitations are not practically enforceable by the MDEQ or us, that the back-up monitoring systems are not sufficient to assure on a regular basis that data are available to determine the emission limitations, or that MDEQ is unable to adequately review and assure the quality of the monitoring data on which both limitations and compliance are based, we would reconsider our approval.

Summary of Comments and Response

Four commenters submitted comments on our variable emission proposal. One commenter questioned whether the State has the resources to implement the variable emission limitations. Several commenters took exception to our characterization of the variable emission limitation, commenting that we portrayed the variable limitations negatively and the commenters stated they should be portrayed in a positive manner. Finally, several commenters wondered how we were going to address MSCC's variable limitation when we adopt a FIP.

We have considered the comments received and still believe it is appropriate to approve the SIP as it

applies to the variable emission limitations at Montana Power and ExxonMobil, with the caveats mentioned in our proposal, and to disapprove the SIP as it applies to the variable emission limitations at MSCC due to the stack height issue.

The following is a summary of the comments received and our response to the comments:

(1) *Comment:* One commenter (Zaidlicz letter, document # IV.A-30) stated that MDEQ does not have adequate resources to continually review monitoring data for compliance with the variable emission limitations at ExxonMobil, MSCC and Montana Power.

Response: Comments on MDEQ resources are being addressed separately. *See* section V.N., above.

(2) *Comment:* Several commenters (Goetz letter, document # IV.A-18, exhibit C; State letter, document # IV.A-23, comment # 4B) took exception to our characterization of the air quality effect of the variable emission limitations. The commenters stated our characterization does not address the benefits of variable emission limitations. For example, in the traditional approach to establishing emission limitations through dispersion modeling, the emission limitation is a function of an assumed buoyancy. Normally, a relatively buoyant plume is assumed. With variable emission limitations, the actual buoyancy of the plume is considered in establishing the emission limitation. At low buoyancy flux, emissions are limited much more than would occur in a normal SIP. One commenter stated that variable emission limitations are more protective of the NAAQS. The commenters stated variable emissions are a much superior approach to setting emission limitations. One commenter stated that our concerns about the variable limitation are inappropriate because of the practical nature of the instrumentation used to determine compliance (instruments are very reliable) and the modeling. The commenter stated the instruments used to determine the buoyancy flux are very reliable and that the same instruments used to determine compliance for a fixed limitation would also be used to determine compliance with a variable limitation.

Response: As indicated in our proposed rulemaking, we evaluate SIPs in relation to several provisions of the Act. In addition to looking at air quality impacts of SIPs, we also need to assure that SIPs are enforceable. Although we may agree with the commenters that the variable emission limitations will result in fewer emissions when the buoyancy

of the plume is lower, we also believe that variable limitations add a level of complexity when trying to enforce. One commenter points out that the same instruments would be used to determine compliance whether the emission limitation was fixed or variable and that a variable limitation should not make any difference. Although the same instruments may be used to determine compliance whether the limitation is fixed or variable, we believe that these instruments will be generating significantly more information for variable limitations than for fixed limitations. For example, in addition to confirming that the source is in compliance with the limitation, agencies will also need to confirm that the variable emission limitation was determined correctly. Therefore, we believe that variable emission limitations increase the workload and add a layer of complexity that is not found with fixed emission limitations. Because of this enforcement complexity, we do not agree with the commenters that variable emission limitations are a superior approach to setting emission limitations.

However, we still believe it is appropriate to approve the variable emission limitations in the SIP with a "wait and see" approach. As indicated in our proposal, if we find it is too difficult to enforce, we will reconsider our approval.

(3) *Comment:* Several commenters (State letter, document # IV.A-23, comment # 4D; Goetz letter, document # IV.A-23, exhibit C; MSCC letter, document # IV.A-19, comment # 44) stated that we should adopt variable emission limitations for MSCC if we adopt a FIP for MSCC. One commenter stated we should use the methodology laid out in the February 2, 1996 stipulation between ExxonMobil, MSCC and MDEQ, with more current CEM data from MSCC, to develop the FIP. One commenter stated that since we had not approved the variable limitation at MSCC, we had left a question as to whether we would approve a variable limitation for MSCC when we promulgated a FIP.

Response: We are only addressing the SIP, and not a FIP, at this time. Therefore, comments pertaining to a FIP should be resubmitted in response to a FIP proposal.

(4) *Comment:* Several commenters (State letter, document # IV.A-23, comment # 4D; Goetz letter, document # IV.A-23, exhibit D; MSCC letter, document # IV.A-19, comment #'s 45, 72, 122) stated we should make clear in our approval of the SIP what should happen to MSCC's redundant

monitoring and data substitution requirements that are required in the State's existing SIP. Some commenters stated that these requirements were only needed for the variable limitation and that since we are not approving the variable limitation, approving the redundant monitoring and data substitution requirements would make the federally approved SIP more stringent than the State intended. Commenters stated that any FIP should also address the issues of redundant monitoring and data substitution requirements.

Response: We assume that the commenters are referring to section 6(B)(3) of MSCC's exhibit which requires MSCC to install certain monitoring equipment to support the use of variable emission limitations. Since we proposed to disapprove the variable limitation at MSCC, the commenters stated we should clarify our approval of these provisions.

Section 6(B)(3) states, "[b]y January 1, 1999, or a date 6 months after EPA approval of the Buoyancy Flux monitoring contained in this document (whichever date is later)* * *" MSCC is to install and maintain certain pieces of back-up monitoring equipment. Since we are disapproving MSCC's variable emission limitation, we believe it does not make sense to approve section 6(B)(3) of MSCC's exhibit because section 6(B)(3)'s existence is conditioned on something that is not happening. That is, we interpret section 6(B)(3) to apply only if we approve MSCC's variable emissions limitation. Therefore, we are not acting on section 6(B)(3) of MSCC's exhibit because we are disapproving the variable emission limitations.

Finally, future FIP monitoring requirements will be addressed at a later time.

(5) *Comment:* One commenter (Goetz letter, document # IV.A-23, exhibit D) stated that our tentative approval of the variable emission limitation is improper and amounts to unauthorized intrusion into the primacy of the State's authority to allocate the ultimate mix of emission controls in order to meet the NAAQS. The commenter also stated that the partial approval leaves MSCC in limbo with no enforceable emission limitation.

Response: We do not agree that we are tentatively approving the variable emission limitation. As proposed, we are approving the variable emission limitation at ExxonMobil and Montana Power and disapproving it at MSCC. We do not believe we would be intruding on the primacy of the State to select the strategies to attain the NAAQS by partially approving and partially

disapproving the plan. As indicated earlier in the flare discussion (section V.C., above), the general air quality management philosophy of the Act is that we establish NAAQS, and States develop, and submit to us, control programs to attain and maintain these NAAQS. We either approve or disapprove these control programs and to the extent they are approved they are legally enforceable by us and citizens under the Act. See also our discussion in section V.E., above regarding comments on our partial approval of the SIP.

We indicated in our proposal that we had concerns with the variable emissions limitation, but that we were going forward with an approval. Regardless of whether or not we stated in our proposed rulemaking action our recourse for addressing any future concerns about the variable emission limitation, the Act provides us with the authority to require that the SIP be revised or to correct any action we later find to be in error. Section 110(k)(5) says "[w]henver the Administrator finds that the applicable implementation plan for any area is substantially inadequate to attain or maintain the relevant national ambient air quality standard.* * * or to otherwise comply with any requirement of this Act, the Administrator shall require the State to revise the plan as necessary to correct such inadequacies* * *" Section 110(k)(6) provides the authority to revise our action on a plan if we find our action to be in error. Therefore, we do not believe our approval of the variable emission limitation was tentative or improper. Our proposal provided the State, sources and public with notice of our concern about the variable limitations and our recourse should those concerns come to fruition. The Act gives us the authority to address any future problems with the variable emission limitation, or any other aspect of this SIP, regardless of whether or not we identify our concerns in our approval of the SIP.

Finally, the commenter stated that our partial approval leaves MSCC in limbo with no enforceable emission limitation. Since we are disapproving the emission limitations on the 100-meter stack, the commenter is correct in that there will be no federally enforceable emission limitations on the 100-meter stack. However, we intend to address this issue by adopting a FIP. In the meantime, the 100-meter stack is subject to State-enforceable limitations on the 100-meter stack.

T. Minor Sources

In our TSD to our proposed rulemaking action (page 44), pertaining to the discussion of MSCC's auxiliary vent stacks, we indicated that the prior stipulations (those submitted prior to the July 29, 1998 submittal) appeared to provide an exemption for minor sources, which the auxiliary vent stacks could be construed to be.

Summary of comments and responses

One commenter wanted further explanation of our comment. We are providing that explanation below.

(1) *Comment:* One commenter (MSCC, letter, document # IV.A-19, comment #79) requested that we explain what we meant on page 44 of our technical support document where we indicated that the prior stipulations (those submitted prior to the July 29, 1998 submittal) appeared to provide an exemption for minor sources that possibly included the auxiliary vent stacks. The commenter stated that there are other minor sources that are exempt from the SIP, the nation has millions of minor sources, and the prior SIPs as well as the existing SIP are adequate to control minor sources at MSCC.

Response: We initially raised concerns about the auxiliary vent stack emissions in our June 3, 1997 letter to Mark Simonich (*see* document # II.C-8). Our concern was that the exhibit to the stipulation (submitted by the Governor on August 27, 1996) appeared to only limit the named heaters and boilers if they were vented to the 100-meter or the 30-meter stack. If emissions from the named heaters and boilers were vented out the auxiliary vent stacks, the heater and boilers were only limited by the minor source provisions;²⁴ there were no specific emission limitations on the heaters and boilers when vented out the auxiliary vent stacks. Since the State believed it was necessary to limit and model the 30-meter stack when the heaters and boilers were vented to it, we were concerned that if all the emissions from the heaters and boilers were vented to the auxiliary vent stacks, which have lower stack heights than the

30-meter stack, then attainment could not be assured.

In his January 30, 1998 letter (*see* document # II.C-9), Mark Simonich agreed that the SIP did not limit the emissions of the named heaters and boilers when they are vented through their respective auxiliary vent stacks. The letter indicated that MSCC and the Department intended to model these emissions and modify the stipulation as needed. The July 29, 1998 submittal contained the modeling demonstration and revisions to the stipulation to address the auxiliary vent stacks.

U. Compliance Determining Method—ExxonMobil's Coker CO-Boiler Stack and F-2 Crude/Vacuum Heater Stack

We proposed to conditionally approve the SIP as it applies to the coker CO-boiler stack emission limitation and F-2 crude/vacuum heater stack emission limitations and the attendant compliance monitoring method (sections 3(E)(4) and 4(E) (only as they apply to the F-2 crude/vacuum heater stack), 3(A)(2), 3(B)(1), 3(B)(3) and attachment 2 of ExxonMobil's exhibit), based on the Governor's commitments to adopt a compliance monitoring method for the coker CO-boiler stack emission limitation and to revise attachment 2 (of the exhibit).

On May 4, 2000, the Governor of Montana submitted a SIP revision to fulfill the commitment on which the proposed conditional approval was based.

Summary of Comments and Responses

We received three comment letters on our proposed conditional approval of ExxonMobil's coker CO-boiler stack emission limitation and F-2 crude/vacuum heater stack emission limitations and the attendant compliance monitoring method (sections 3(E)(4) and 4(E) (only as they apply to the F-2 crude/vacuum heater stack), 3(A)(2), 3(B)(1), 3(B)(3) and attachment 2.) Two commenters stated we should require CEMS on ExxonMobil's coker CO-boiler stack and one of the commenters stated we should have CEMS on the F-2 crude/vacuum heater stack. One commenter agreed with our proposal.

We have considered the comments received. However, since the Governor fulfilled his commitments, we believe it is not appropriate to finalize the conditional approval. Instead, we will complete notice-and-comment rulemaking on parts of the July 29, 1998 submittal (*i.e.*, those parts we proposed conditional approval on July 28, 1999) and all of the May 4, 2000 submittal.

Even though we intend to complete separate rulemaking action on parts of the July 29, 1998 submittal and all of the May 4, 2000 submittal, below we are responding to the comments received:

(1) *Comment:* Two commenters (Zaidlicz letter, document # IV.A-30 and McGarity letter, document # IV.B-1) stated ExxonMobil's coker CO-boiler emission limitation should be enforced through CEMS. One commenter (McGarity letter, document # IV.B-1) stated ExxonMobil's F-2 crude/vacuum heater stack should contain CEMS. The commenter stated SO₂ compliance cannot be demonstrated with best engineering algorithms unless all the H₂S in the feed refinery fuel gas (including sour water stripper emissions and other streams that are plumbed upstream of the combustion unit) are regularly measured or there is an SO₂ CEMS.

Response: We cannot require that every emission point be enforced through CEMS. Other methods, such as engineering calculation, are acceptable if the State can demonstrate that the calculations are representative of SO₂ emissions. With the May 4, 2000 submittal, the State has developed a method to monitor compliance with ExxonMobil's coker CO-boiler emission limitation and is revising attachment 2 of ExxonMobil's exhibit. We will evaluate the methods the State developed in a separate rulemaking action.

(2) *Comment:* One commenter (ExxonMobil letter, document IV.A-28) agreed with our assessment that the coker CO-boiler stack emission limitation and F-2 crude/vacuum heater stack emission limitations and the attendant compliance monitoring method should be conditionally approved.

Response: As mentioned above, since the State has fulfilled its commitment, we are not finalizing the conditional approval. Instead, we will complete separate rulemaking action on parts of the July 29, 1998 submittal (*i.e.*, those parts we proposed to conditionally approve on July 28, 1999) and all of the State's May 4, 2000 submittal.

V. Effect of the 1990 Amendments to the Clean Air Act

(1) *Comment:* One commenter (MSCC letter, document # IV.A-20, comment # 3.P) expressed a belief that the Clean Air Act amendments of 1990 superseded requirements for attainment demonstrations for SIPs for three nonattainment areas in California under the prior Act and that we could not take action on this SIP until we clarified the effect of the 1990 amendments on other

²⁴ We were also concerned that the minor source provisions (in the exhibit submitted by the Governor on August 27, 1996) might not apply to the auxiliary vent stacks because the minor source provisions indicated that they applied to the "control of emissions of sulfur bearing gases from minor sources such as ducts, stacks, valves, vessels, and flanges which are not otherwise subject to this Exhibit A." Since the named heaters and boilers were already subject to Exhibit A, we were concerned that the minor source provisions might not apply to the auxiliary vent stacks at the named heaters and boilers.

attainment demonstrations. The same commenter stated that EPA must determine whether Montana needs to submit a SIP that relies on a modeled attainment demonstration in light of the 1990 amendments. *See* MSCC letter, document # IV.A-20, comment # 4.G.

Response: Generally, the 1990 amendments to the Clean Air Act do not affect our pre-existing powers concerning the approval of plans or plan revisions. *Commonwealth of Pennsylvania Dept. of Environmental Review v. Environmental Protection Agency*, 932 F.2d 269, 272 (3rd Cir. 1991). We are uncertain what the commenter means when he states that the amendments superseded requirements for attainment demonstrations and that EPA must determine whether a modeled attainment demonstration is necessary under the current Act. The 1990 amendments did not revise the planning requirements for SO₂. The 1990 amendments did revise the planning requirements for three criteria pollutants: ozone, carbon monoxide, and PM-10. *See* CAA title I, part D, subparts 2, 4, and 4 (sections 181 through 190 of the Act). We clarified the effect of these extensive revisions with respect to various aspects of SIP development in our published guidance titled "General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990" ("General Preamble"). *See generally* 57 FR 13497 (April 16, 1992)—document # II.A-15.

The 1990 Act amendments that affected requirements for nonattainment areas for ozone, for example, (Act title I, part D, subpart 2, sections 181-185B) changed the attainment deadlines for these areas and may have had an effect on several pending actions against EPA related to our approval of SIPs for the Los Angeles area. The 1990 amendments had a more limited effect on the planning requirements for SO₂. The amendments did not alter attainment deadlines or establish new requirements for attainment demonstrations for SO₂ SIPs, but simply required States with SO₂ nonattainment areas to submit a plan that complied with general planning requirements, including a part D permit program for major new and modified sources. *See* section 191 of the Act. *See also*, General Preamble, 57 FR at 13546, where we said that if a nonattainment SO₂ plan had been approved for an area before the 1990 Amendments and we subsequently found the plan to be substantially inadequate, as we did for the Laurel nonattainment area, the plan must be revised to provide for

attainment within five years from the finding of inadequacy. The State of Montana submitted the required plan revision for the Laurel SO₂ nonattainment area as part of the SIP revisions for the Billings/Laurel area. Because of the direct relationship between receptors and emission sources, the use of models to demonstrate attainment of the SO₂ NAAQS continues to be a necessary and appropriate planning tool in SO₂ nonattainment and SIP Call areas.

W. Stack Height Issues

In our July 28, 1999 action (64 FR 40791) we proposed to disapprove MSCC's stack height credit and emissions limitations used in the attainment demonstration modeling for the Billings/Laurel area. We also proposed to disapprove MSCC's emissions limitations because the State set the limitations based on an amount of stack height credit for MSCC (97.5 meters) that is not supportable under section 123 of the Act and EPA's stack height regulations. Generally speaking, a source allowed greater stack height credit will have less stringent emissions limitations in the SIP. Such a source is able to rely to a greater degree on dispersion, rather than emissions controls, to help ensure an area meets the NAAQS.

Summary of Comments and Response

We received numerous comments on our proposal. Most of the comments were from MSCC and its consultants. They objected to our proposed disapproval of the stack height credit and emissions limitations for MSCC. The State also submitted comments objecting to our proposal. Several other commenters also submitted comments on this issue, some objecting to our proposal and others favoring our proposal.

We have considered the comments received and still believe we should finalize our proposed disapproval of the MSCC's stack height credit and SRU 100-meter stack emissions limitations. None of the adverse comments has convinced us that our interpretation of the Act and our regulations is unreasonable or that we should change our proposed course of action.

To assist the reader, we have attempted to separate the comments and our responses into categories. Some comments and responses that relate to stack height questions are contained in other sections of this document—for example, comments that raise constitutional questions are grouped with other comments based on the Constitution. (*See* section V.E., above.)

The following is a summary of the comments received and our response to the comments.

1. Issues Related to NSPS

Although the State approved above-formula stack height credit for MSCC, and required MSCC to use an NSPS emission rate in the fluid modeling demonstration that the State approved, the State did not require MSCC to meet the NSPS emission rate in the SIP. As we described in our proposed disapproval and TSD, we read the language of our stack height regulations to require sources that wish to obtain above-formula stack height credit to have a SIP limit that is no higher than the NSPS limit used in fluid modeling. In the alternative, a source may justify use of an alternative limit in fluid modeling by showing that it cannot meet the NSPS limit. In this instance, a source would then have to have a SIP limit no higher than this alternative limit. Such an alternative limit would be determined through a Best Available Retrofit Technology (BART) analysis pursuant to EPA guidance. We typically refer to such an alternative limit as a "BART limit."

Because MSCC's emissions limitations in the SIP are not consistent with the NSPS limit used in MSCC's above-formula fluid modeling, we proposed to disapprove MSCC's 97.5 meter stack height credit and SRU 100-meter stack emissions limitations. We received numerous comments on this issue and have considered them. Nothing in the comments has caused us to change our position on this issue.

(a) *Comment:* One commenter (MSCC letter, document #IV.A-19, comment #'s 20, 21, 89; MSCC letter, document #IV.A-20, comment #1.J) stated that EPA should find that the State properly applied the explicit provision of the rules for use of NSPS or other feasible emission rates in the approved fluid modeling and that the State was not required to impose the NSPS or other feasible emission rate as an ongoing operating limit. The commenter claimed that the rule defines GEP without reference to actual emission limits; that instead, GEP is properly used to define emission limits under section 123 of the Act and EPA's regulations, and to establish an emission limit before establishing GEP is circular logic.

Response: We addressed these objections in the TSD to our proposal, and we stand by that discussion—*see* TSD pages 61-66. We continue to read the stack height regulations to require a source to at least meet the NSPS/BART limit as a condition of obtaining above-formula stack height credit. Establishing an upper bound for an emission limit

before establishing GEP stack height is not circular. It merely reflects EPA's conscious decision to limit situations in which sources would want or need above-formula stack height credit and to restrict such credit to sources that would be well-controlled as EPA decided to define that term. EPA's approach was entirely consistent with Congress' intent that above-formula stack height credit should be granted only in rare circumstances and with utmost caution. See *NRDC v. Thomas*, 838 F.2d 1224, 1242; *Sierra Club v. EPA*, 719 F.2d 436, 450.

In addition to the language we cited in our TSD, there is additional preamble language that is relevant to this issue. Under the heading, "Summary of Modifications to EPA's Proposal Resulting from Public Comments", we stated the following:

"Section 51.1(ii)(3) (should refer to (kk)(1)) has been revised as discussed elsewhere in this notice to specify that an emission rate equivalent to NSPS must be met *before* a source may conduct fluid modeling to justify stack height credit in excess of that permitted by the GEP formulae."

50 FR 27905, July 8, 1985, emphasis added. Again, it is clear that the NSPS modeling assumption.

(b) *Comment*: One commenter (State letter, document #IV.A-23, pp. 17-19) stated that the rule and section 123 contain no requirement that a source must meet the NSPS limit on an ongoing basis. The commenter claimed that the rules and section 123 pertain to the determination of GEP stack height and do not impose the NSPS limit or any other emission limit. According to the commenter, the term "allowable emission" does not create the requirement EPA says it does, particularly given the context in which it is found.

Response: We disagree with the commenter regarding our rule and the use of the term "allowable emission." See our response to the previous comment. We agree that section 123 does not impose an emission limit for granting above-formula stack height credit. The D.C. Circuit recognized this, but held that EPA had the discretion under 123 to apply control-first in the above-formula context. *NRDC v. Thomas*, 838 F.2d 1224, 1241 (D.C. Cir. 1988). This is what EPA did, by requiring that a source granted above-formula stack height credit meet the NSPS or BART alternative rate as an ongoing limit. The State's reading of the regulation would read the term "allowable" out of the regulation, but this language cannot be ignored. See, e.g., *Market Co. v. Hoffman*, 101 U.S.

112, 115-116 (1879); *Reiter v. Sonotone Corp.*, 442 U.S. 330, 339 (1979).

In addition, the context must be considered. Our interpretation is consistent with the form of the proposed regulation. In the proposal, we proposed the use of one of three emission rates in the fluid modeling demonstration. It is clear from the following language from the proposal that we used the terms "emission rate" and "emission limitation" interchangeably and that we viewed the emission rate used in fluid modeling demonstrations as an upper bound for subsequent emission limits:

"It was not necessary under the previous definition of 'excessive concentrations' to establish a source emission limitation prior to conducting fluid modeling because the definition required only that sources show an increase in concentration due to downwash, wakes, or eddy effects. With the revised definition, it will be necessary to specify an emission rate in the fluid model, in order to determine whether a NAAQS or PSD increment is being exceeded. Consequently, the Agency will require in its technical support document that the emission limitation be established based on either: (1) The existing, approved emission limit; (2) any applicable technology-based emission limit, such as the new source performance standards (NSPS); or (3) the emission limit that would result from the use of GEP formula stack height, whichever is applicable to the source being modeled. Once the emission limitation is identified, fluid modeling may consider the actual downwash, wake, and eddy effects of nearby terrain features and structures on ground level concentrations. Sources will then be allowed to calculate stack height credit based on that height needed to eliminate excessive concentrations caused by such effects."

49 FR 44878, 44882, November 9, 1984.

We viewed the emission rate to be used in fluid modeling as a limit on future emissions—in the Agency's view, the limit used in fluid modeling and above-formula GEP stack height credit were inexorably linked, and the above-formula stack height credit had no validity unless the emission limit established prior to conducting fluid modeling was honored. (As we discuss elsewhere, one way in which the emission limit is honored is if the SIP establishes a lower limit based on other factors or requirements that are more controlling than downwash.)

(c) *Comment*: Two commenters (State letter, document #IV.A-23, p. 19; Goetz letter, document #IV.A-18, exhibit D, p. 23) stated that it is inappropriate for EPA to rely on or resort to the preamble to the stack height regulations or legislative history when the plain language of the rules is clear. These commenters claimed that the preamble should not be used to create ambiguity

where none exists or to alter the rule language. According to the commenters, the rules require use of the NSPS limit in the fluid modeling demonstration but do not address the emission limitation that will apply after the determination of GEP stack height. One of the commenters (State) asserted that the preamble language selected by EPA is unpersuasive and taken out of context, and that other preamble text clearly supports the commenters' position.

Response: As noted in our TSD (p. 61), the plain language of the rule refers to the "allowable emission rate" to be used in the fluid modeling demonstration, and the word "allowable" is used in our regulations to denote an enforceable emission limit. The word "allowable" would be extraneous if we were merely trying to indicate that the NSPS would be assumed for demonstration purposes. We believe our intent was clear—the emission rate used in the fluid modeling demonstration was not a mere assumption, but a cap on emissions that a source would have to meet as a condition of obtaining above-formula stack height credit. At the very least, the use of the term "allowable emission rate," combined with the possibility that a source could justify an alternative emission rate in certain circumstances, renders the regulation ambiguous and subject to reasonable interpretation by EPA. See, e.g., *Martin v. Occupational Safety & Health Review Comm'n*, 499 U.S. 144, 150-151 (1991); *Udall v. Tallman*, 380 U.S. 1, 16 (1965); *Walker Stone Company, Inc. v. Secretary of Labor*, 156 F.3d 1076, 1080 (10th Cir. 1998). This also makes it reasonable for us to consult other documents implementing and interpreting the regulation. The preamble to the regulation is particularly important for interpreting the regulation because it was issued contemporaneously with the regulation and was essential to meet the requirements of the Administrative Procedure Act (providing EPA's basis for issuing the rule for purposes of judicial review.) The preamble clearly explains what we intended by the language "allowable emission rate"—namely, that the NSPS would be an ultimate cap on emissions for sources seeking above-formula stack height credit. Our reading of the preamble language is reasonable; the commenters' reading is strained.

(d) *Comment*: One commenter (MSCC letter, document #IV.A-19, comment #82) claimed that EPA uses improper criteria for evaluating GEP stack height credit in the SIP, that EPA may only consider 40 CFR 51.100 and section 123 of the Act, that the preamble, guidance

documents, TSD for the stack height regulations, and memos are not appropriate to consider unless the rule itself is unclear. The commenter claimed the rule is clear. According to the commenter, EPA seeks to use these documents as regulations, or in place of the regulations, when such collateral writings are not subject to rulemaking, notice, comment or appeal. The commenter asserted that if the rule is so unclear, as alleged by EPA staff, to require so much collateral explanation, it is or may be unconstitutionally vague and void. Also, the commenter claimed that EPA's selection of interpretive documents is incomplete. According to the commenter, EPA has not included correspondence specific to this case, has omitted court decisions on the current rule, EPA's own brief in defending the rule to the court, or the collateral demonstrations provided by MSCC.

Response: We believe the heading in the TSD (document #III.B-1), "Criteria for Evaluation," may be a bit misleading. We are evaluating the SIP against the statutory and regulatory requirements. We are not seeking to use other documents as regulations, but to help explain the regulations. Regarding the central issue, whether it is appropriate to consult documents other than the rule and statute, please see our response to the previous comment.

The list of documents under "Criteria for Evaluation" on page 51 of the TSD is not exhaustive. We have cited to and included in our record numerous other documents, and have considered the record as a whole in reaching our final decision.

We do not believe the regulation is unconstitutionally vague; in any event, this is a complaint about the regulation itself, which may not be raised in this action.

(e) *Comment:* Two commenters (State letter, document #IV.A-23, p. 21; Goetz letter, document #IV.A-18, exhibit D, pp. 24-26) stated that EPA's own Guideline for Determination of Good Engineering Practice Stack Height makes clear that the GEP stack height credit is first calculated and then this height is input into an air quality model to set SIP emission limitations. They also assert that the Guideline makes clear that the NSPS emission rate is used only for the fluid modeling demonstration. According to these commenters, nowhere does the Guideline even hint that the NSPS emission rate would constrain the ultimate emission limit for sources seeking above-formula stack height credit. The commenters argue that the State followed the process outlined in

EPA's Guideline in setting MSCC's SIP emission limit.

Response: The commenters are correct that the Guideline contemplates a two-step process in which first, GEP stack height credit is determined and second, an emission limitation is set. However, the commenters gloss over a critical aspect of the Guideline. When the Guideline discusses the process for setting emission limitations in above-formula situations, the Guideline, at pages 58-59, cross-references item G of Table 3.1 of the Guideline:²⁵

"Sources with a physical stack height greater than the GEP height based on Equation 1, that wish to establish the correct emission limit should input the GEP height (given by Equation 1, fluid model or field study) into an air quality model to set the emission limitations. Refer to Table 3.1, item G."

Table 3.1, item G, at page 51 of the Guideline, describes the process for establishing GEP stack height for stacks above formula height and indicates that the resultant physical stack height should be used to set emission limits. However, a footnote to this statement reads as follows:

"Where some other meteorological condition is more controlling than downwash, adjust the emission rate to avoid a violation of a NAAQS or available PSD increment."

Thus, under the Guideline it might be necessary to adjust the emission limit downward from the NSPS or BART rate used in the fluid modeling or field demonstration. By the same token, if some other more controlling meteorological condition is not present, it is clear the Guideline considers downwash to be controlling, and the emission limit must be consistent with the NSPS or BART value used in the fluid modeling or field demonstration.

Other language from the Guideline confirms this interpretation. At page 52, the Guideline states:

"In conducting a demonstration, a source should use the modeled stack height, input the applicable emission rate that is equivalent to NSPS for that source category¹, and add in the background air quality as determined by procedures contained in two EPA guidance documents (EPA, 1978, 1981)."

Footnote 1 to the above text reads as follows:

"However sources may on a case-by-case basis demonstrate that such an emission is not feasible for their situations and determine their emission limitations based on Best

²⁵ We have discovered that there are two different versions of the Guideline. The version submitted by MSCC as Exhibit 131 cross-references item F of Table 3.1. We refer to the version we included in our docket as document #II.A-12, which cross-references item G of Table 3.1.

Available Retrofit Technology." (emphasis added)

It is apparent that we viewed the "applicable emission rate" used in the fluid modeling or field study as an emission limitation, that might have to be adjusted downward during dispersion modeling to address meteorological conditions more controlling than downwash, but that could not be adjusted upward. This reading is consistent with the language of the regulation, preamble, and numerous other EPA documents that we have cited in this rulemaking.

(f) *Comment:* Two commenters (Goetz letter, document #IV.A-18, exhibit D, pp. 19-21; MSCC letter, document #IV.A-20, comment # 1.D) stated that no one suggested that the NSPS would have to be the applicable emission limit because the rule is clear that the NSPS emission rate is for purposes of the demonstration only. The commenters asserted that EPA's failure to notify the State or MSCC during late 1995 and the first few months of 1996 that the NSPS would have to be used as an actual limit is evidence that the regulation does not require that the NSPS be applied as an ultimate emission limit.

Response: Our meteorologist did not suggest that the NSPS would have to be the applicable emission limit during the time period mentioned for two reasons. First, at that time, the focus of the various parties' efforts was not on final emission limits, but on the design of the wind tunnel study. Second, our meteorologist was initially not aware that the NSPS would have to be the applicable emission limit. However, as explained in response to other comments, we disagree with the commenter's assertion that the rule is clear that the NSPS emission rate is for purposes of the demonstration only. On the contrary, the rule requires that the NSPS be met as the applicable emission limit. We also disagree that our not having notified MSCC during late 1995 and the first few months of 1996 that the NSPS would have to be used as an actual limit is evidence that the regulation does not require that the NSPS be applied as an ultimate emission limit. Instead, it is merely evidence that we were not focusing on ultimate emission limits and had not yet addressed the requirement. Elsewhere in this document, we have explained in detail why we think the regulation requires that the NSPS apply as an ultimate cap on emission limits in above-formula situations.

(g) *Comment:* One commenter (State letter, document #IV.A-23, p. 20) stated that the fact that Congress intended

above-formula stack height credit be granted only in rare circumstances does not support EPA's position or offer insight into the question at issue. The commenter asserted that Congress' intent is too vague to define the boundaries of EPA discretion.

According to the commenter, nothing in the CAA, the implementing regulations, or background to section 123 supports the proposition that Congress intended to override a state's authority to determine actual emission rates under section 110 of the CAA. The commenter argued that section 123 does not give EPA authority to actually set an emission limit.

Response: In concluding that control first was an appropriate regulatory approach in the above-formula context, the Court of Appeals for the D.C. Circuit noted Congress' intent that above-formula stack height credit be granted only in rare circumstances and with utmost caution. *NRDC v. Thomas*, 838 F.2d 1224, 1241–1242, (D.C. Cir. 1988). We believe that our interpretation of the stack height regulations is consistent with Congressional intent and that this is another reason our interpretation is entitled to deference. Our interpretation ensures that sources will only receive above-formula stack height credit when they are first willing to try to address downwash concerns by installing NSPS or BART-level controls. Contrary to the commenter's assertion, it is quite evident that section 123 restricts a state's authority to set SIP emission limits. By upholding our use of control first in the above-formula context, the D.C. Circuit further defined the parameters that apply to establishing SIP emission limits. States remain free to establish emission limits for sources, as long as they are consistent with the requirements of section 123 and the stack height regulations. In this case, the State would not have to cap MSCC's stack emissions at the NSPS level if the State relied on the 65 meter de minimis stack height credit, instead of above-formula credit, in setting MSCC's SIP limits.

(h) **Comment:** One commenter (MSCC letter, document #IV.A–20, comment #8) stated that MSCC's stack height credit was granted with utmost caution.

Response: The State may have granted the credit after considerable analysis, but for the reasons stated in this document, we do not believe the 97.5 meter stack height credit the State approved for MSCC's 100-meter stack is valid under section 123 of the Act and our stack height regulations.

(i) **Comment:** Two commenters (MSCC letter, document #IV.A–19, comment #24; MSCC letter, document

#IV.A–20, comment #2.Q; State letter, document #IV.A–23, p. 20) disputed EPA's claim that the Court in *NRDC v. Thomas* upheld the requirement to meet the NSPS as a condition of above-formula stack height credit. The commenters claimed the issue was not before the Court and was not addressed by the Court. One of the commenters (MSCC) claimed that the court merely held that EPA had the discretion under section 123 to impose the NSPS as a presumption for above-formula stack height credit and never held that EPA was actually applying the NSPS as a precondition for obtaining GEP credit. Another commenter (State) cited an EPA Region 3 letter and an EPA Headquarters letter and claimed EPA has made inconsistent statements regarding the presence of a dispute regarding the NSPS requirement; in this commenter's view, EPA's position would mean the delegation of the court's decision making responsibilities to the parties and their briefs.

Response: We addressed this issue in detail in the TSD for our proposal, and we stand by that discussion. See TSD pages 64–66. The Court in *NRDC v. Thomas* upheld the stack height regulations, and in doing so, specifically held that EPA had the discretion to impose control-first in the above-formula context. *NRDC v. Thomas*, 838 F.2d 1224, 1241. Using the NSPS as a mere modeling assumption is not the same as “control-first.” Our preamble made clear that control-first meant the imposition of controls as a prerequisite to stack height credit. 50 FR 27896, July 8, 1985.

It is true that there was no dispute before the court regarding the *existence* of the NSPS requirement (all parties understood that the NSPS would have to be met as a prerequisite for above-formula stack height credit). However, the *propriety* of this requirement was most certainly argued before the court. See TSD pages 64–66. Despite the arguments of the industry petitioners, the court upheld our regulations.

Regarding our reference to the briefs in the *NRDC v. Thomas* case, it was the State in its opinion about the stack height regulations that first cited the briefs as evidence of EPA's intent in the stack height regulations. (See memorandum dated August 1, 1996 from Jim Madden to Mark Simonich, attachment to document #II.C–9.) This led us to examine some of those briefs in detail. We think the briefs reflect the nature of the dispute before the court and the understanding of the parties regarding the requirements of the stack height regulations at the time the regulations were promulgated.

Regarding Region 3's 1988 letter (October 6, 1988 letter from Marcia Mulkey to John Proctor, document #IV.C–65), the views expressed by Region 3 counsel in 1988 support our position in almost every respect. Ms. Mulkey completely rejected Mr. Proctor's assertion that the NSPS was a mere modeling assumption. Among other things, Ms. Mulkey concluded that Mr. Proctor's reading of the regulations would render the above-formula stack height analysis artificial and unrelated to the health and welfare criteria which the D.C. Circuit, in the *Sierra Club v. EPA* case, had held must be used to define excessive concentrations in the above-formula context.

Regarding the narrow portion of the letter that the commenter focuses on, Ms. Mulkey was indicating that no party to the *NRDC v. Thomas* case had raised the alternative interpretation that Mr. Proctor was asserting (that the NSPS was a mere modeling assumption) and that the Court's holding, approving EPA's stack height regulations, was in no way dependent on this alternative interpretation. Thus, in Ms. Mulkey's view, EPA remained free to interpret the stack height regulations to require that NSPS or BART be met as an emission limit. We agree with Ms. Mulkey's conclusion, as far as it goes. But, in addition, the *NRDC v. Thomas* court specifically upheld the application of control-first in the above-formula context, and, as we note above, control-first is not a mere modeling assumption.

The April 20, 1989 Headquarters letter from Gerald Emison to John Proctor (document #II.A–7) that the commenter cites indicated that Headquarters fully endorsed Region III's conclusions and supporting rationale in Ms. Mulkey's October 6, 1988 letter, but also cited from the *NRDC v. Thomas* opinion, and stated, “We believe that the opinion indicates clearly that the court regarded the presumptive NSPS emission limit as a limit that must be complied with once the fluid modeling was completed * * *.” The Emison letter cited to language in the opinion dealing with industry concerns that the NSPS would not be attainable, language that indicated the court understood the NSPS would be a cap on ultimate emissions. (“* * * industry petitioners assert that in order to use the NSPS presumption, EPA must be able to point to substantial evidence that it is attainable by most of the affected sources. But as EPA allows any source to use a higher emissions rate when NSPS is infeasible, there is no need for any sort of generic demonstration that it is normally so.” *NRDC v. Thomas*, at 1242.) We note that the court did not

respond to the industry concerns by saying the NSPS was a mere modeling assumption, and that a higher SIP limit might result from dispersion modeling.

Ultimately, the central question is whether we are reading the stack height regulations reasonably. Either we are reasonable in reading the regulations to require a source to meet the NSPS or BART as a prerequisite for above-formula stack height credit or we are not. If our longstanding interpretation is reasonable, we believe it is too late for anyone to challenge the requirement because the *NRDC v. Thomas* court already upheld the stack height regulations. And, all the arguments about lack of notice and inappropriateness of applying NSPS to sources not otherwise subject to the NSPS are irrelevant; they should have been advanced at the time EPA adopted the regulations and first asserted its interpretation, or not at all.

(j) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 23) stated that EPA relied on the availability of approvable feasibility studies as a justification for not having any evidence in the record regarding the validity of the NSPS presumption. The commenter asserted that since such studies are not possible, EPA's and the court's reliance on such studies to approve the NSPS presumption is flawed.

Response: This comment goes to the validity of the 1985 stack height regulations themselves and is not relevant to our action on the SIP before us. In any event, the commenter's conclusion that such studies are not possible is not supported. The fact that one State has not been able to gain EPA approval for an infeasibility analysis for one source does not mean that such studies are not possible. Studies may be "doggedly pursued;" that does not mean they reflect sound analysis.

(k) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 32; MSCC letter, document # IV.A-20, comment #'s 2.P and second 5.E) stated that it is unfair and unlawful to apply the NSPS to MSCC, because MSCC is not a new source, and because the law does not require meeting the NSPS as a precondition of obtaining above-formula stack height credit. Another commenter (CPP letter, document # IV.A-18, exhibit A, p. 5) also asserted that MSCC is not a new source and the NSPS should not apply.

Response: We addressed this issue in the TSD to our proposal, and we stand by that discussion. See TSD pages 58-60. Also, please see our responses to previous comments.

(l) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 33) stated that there is no source category clearly applicable to sulfur recovery plants built prior to 1976 and that there is no source category applicable to existing sulfur recovery plants built before 1976 and 1970 that are not located within the bounds of a petroleum refinery or under the control of a petroleum refinery.

Response: First, MSCC agreed to the use of the NSPS applicable to sulfur recovery plants for purposes of its fluid modeling demonstration. It is not convincing for the commenter to now complain that MSCC's sulfur recovery plant is not within the source category to which the NSPS applies. Second, the commenter misinterprets the NSPS. The regulation specifically provides that "the Claus sulfur recovery plant need not be physically located within the boundaries of a petroleum refinery to be an affected facility provided it processes gases produced within a petroleum refinery." 40 CFR 60.100(a). Clearly, MSCC's sulfur recovery plant falls within this description. See also 41 FR 43866, October 4, 1976. In promulgating 40 CFR 51.100(kk)(1), we recognized that some sources would be grandfathered and not strictly subject to the NSPS; however, we believed it was appropriate to use the NSPS for the source category to which the source belonged, even if the individual source was not subject to the NSPS under part 60. Thus, we believe it is appropriate to use the 40 CFR part 60, subpart J standards when evaluating the emission limits for MSCC in an above-formula scenario.

(m) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment #'s 33, 58, 96) stated that no source reading EPA's proposed or final stack height regulations would have had notice that the agency would impose NSPS as an operating limit on it as a condition of receiving GEP stack height credit. The commenter objected to EPA's reasoning in the proposal that MSCC's problems with the stack height rule should have been appealed when the rule was published. The commenter claimed that a reasonable person reading the rule text could not have foreseen the meaning that EPA now assigns to the rule. The commenter asserted that EPA has modified many aspects of the stack height regulations by reference to and interpretation of internal guidance and memos, and court briefs and decisions.

Response: To the extent this is a claim that EPA provided inadequate notice of the NSPS and other requirements in the 1985 stack height regulations, we

believe this claim could only be raised in a challenge to the stack height regulations themselves, and is not relevant to this rulemaking action. See TSD pages 60-61. In any event, we disagree with the commenter's assertion that no source would have had notice that the agency would impose NSPS as an operating limit in above-formula situations. Our final stack height rulemaking notice and materials in the rulemaking record made clear that the NSPS or alternative limit used in above-formula fluid modeling determinations would have to be met as a condition of obtaining above-formula credit. See 50 FR 27898, 27905, July 8, 1985; documents cited at page 54 of our TSD. As we pointed out in the TSD to our proposal, other persons reading the final rule understood this and registered their objections with EPA and the *NRDC v. Thomas* court. See TSD at pages 60-61, 64-65. See also memorandum dated June 19, 1985 from Eric Ginsburg to Files entitled, "Conference Call With OMB to Discuss Concerns about the Stack Height Regulations," document # II.A-13; letter dated June 21, 1985 from R. E. Boyle, President, Ormet Corporation, to Lee Thomas, Administrator, EPA, regarding "Section 123 Stack Height Regulations," document # IV.C-63; letter dated June 17, 1985 from W. S. White, Jr., Chairman of the Board, American Electric Power Company, Inc., to Lee Thomas, regarding "EPA Stack Height Regulations—Ohio Power Company's Kammer Plant," document # IV.C-62; letter dated June 20, 1985 from Henry V. Nickel, Hunton & Williams, to Lee Thomas, regarding "'Red border' draft stack height rules," document # IV.C-61; letter dated June 21, 1985 from Congressman Allan B. Mollohan to Lee Thomas, document # IV.C-60; letter dated June 20, 1985 from R. E. Disbrow, President, American Electric Power Company, Inc., to The Honorable Robert C. Byrd, regarding "EPA Stack Height Regulations—Ohio Power Company's Kammer Plant Marshall County, West Virginia," document # IV.C-59; letter dated June 27, 1985 from Richard F. Celeste, Governor, Ohio, to Lee Thomas, regarding "EPA Stack Height Regulations—Ohio Power Company's Kammer Plant," document # IV.C-58.

We also disagree with the commenter's assertion that we have modified the stack height regulations without rulemaking or somehow ignored the rule's plain language. As to the specific interpretation issues raised by the commenter, we discuss these in detail in responses to other comments. As a general proposition, we believe we

have appropriately consulted the statute, the preamble to the stack height regulations, relevant case law, and other documents to help interpret portions of the regulations that may be ambiguous or complex.

(n) *Comment:* Several commenters (MSCC letter, document # IV.A-19, comment # 88; State letter, document # IV.A-23, pp. 17, 18; Goetz letter, document # IV.A-18, exhibit D, pp. 19, 22) asserted that contrary to EPA's statements, EPA has not consistently read the language of the rule to require that a source meet the NSPS as a condition of obtaining above-formula stack height credit. According to these commenters, EPA did not alert the state or MSCC to such reading before MSCC performed fluid modeling or during the Montana contested case proceeding; this, in spite of the fact that the record is clear that DEQ modeler/meteorologist John Coefield was in continual contact with EPA's meteorologist on these issues. The commenters asserted that EPA's meteorologist was not aware of this interpretation until after the State approved MSCC's demonstration. The commenters claimed that in fact, EPA's input during the process indicated that the State was using the correct approach in determining GEP formula height and the resulting SIP emission limit.

Response: The commenters are correct that the Region's meteorologist was unaware of this requirement until after he spoke to staff from another Region. However, upon learning of this, we informed the State. This was in May of 1996, before the State adopted emission limits for MSCC. We had several discussions of this issue with the State after our initial call in May 1996. See Record of Adoption, transcript of August 8, 1996 Board Hearing, testimony of Mark Simonich, pp. 24-28, document # II.C-3. We faxed a letter to the State describing our position on this issue on July 18, 1996, before MSCC or Montana signed the MSCC stipulation. See document # II.C-5. MSCC signed the stipulation on July 22, 1996 and the MDEQ did not sign the stipulation until after that. See document # IV.A-17, MSCC Exhibit 132, letter from Mark Simonich to Mary Westwood dated August 2, 1996, with August 1, 1996 memorandum from Mark Simonich to Montana Board of Environmental Review attached.

Although our meteorologist consulted with the DEQ modeler/meteorologist regarding the conduct of the fluid modeling demonstration, it is an exaggeration to say he was in continual contact with the DEQ modeler/meteorologist. It is important to note that we were not a party to the contested

case hearing, and that our meteorologist was providing input from home regarding the modeling at a time in late 1995 when EPA was shut down as a result of the budget standoff between President Clinton and Congress. Thus, in providing his input, our meteorologist often did not have access to the advice of legal counsel and EPA Headquarters personnel. Our meteorologist was providing his best advice to the DEQ modeler/meteorologist under difficult circumstances.

In addition, the focus of MSCC's contractor's efforts in late 1995 and early 1996 was the design of a wind tunnel study, not final SIP emission limits. Consequently, our meteorologist's focus, and the focus of his discussions with the DEQ modeler/meteorologist, was the design and execution of the wind tunnel study, not final SIP emission limits. See memorandum of Kevin Golden, document # IV.C-71. This is reflected in the January 31, 1996 and March 15, 1996 letters from Richard Long to Jeff Chaffee cited by one of the commenters (document #s II.F-19 and 20). These letters focused on our concerns with the manner in which MSCC's contractor had performed fluid modeling, not on ultimate emission limits. It is also important to remember that MSCC did not start out seeking above-formula stack height credit, but only agreed to conduct above-formula modeling relatively late in the process. Even then, and despite our and the State's warnings that within-formula demonstrations would not be accepted, MSCC continued to pursue within-formula modeling demonstrations. This was an evolving process, and statements we may have made regarding relying on GEP stack height credit generally to set SIP limits—for example, based on de minimis or formula stack height credit—have no bearing on the matter before us.

Ultimately, whether we alerted MSCC or the State before MSCC's contractors began their wind tunnel study for above-formula stack height credit that NSPS or BART would have to be met in fact, is irrelevant to the real issue: what the statute and our regulations require. It also does not change the fact that EPA as a regulatory agency has since the inception of the stack height regulations read the regulations to require that the NSPS be met as an ongoing limit as a condition of obtaining above-formula stack height credit. The fact that we did not also reiterate our longstanding interpretation before the conduct of the wind tunnel study does not form a basis for us to ignore the requirements of our regulations in evaluating the SIP.

Furthermore, we believe the State has an independent obligation to evaluate applicable regulatory requirements. As the State admits, this was not the first time this issue had arisen in the State. (State comment, document # IV.A-23, page 18, footnote 18.) As noted in our TSD, we informed the State of our reading of the stack height regulations in 1991, while commenting on an earlier SIP effort for the East Helena area. We believe it would have been prudent and appropriate for the State to review information in its files relative to that stack height analysis, and to pass on relevant information to MSCC.

(o) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, pp. 19, 20) stated that in written comments on the State's protocol for conducting the fluid modeling demonstration, EPA did not indicate that the NSPS would be the applicable emission limit; nor did EPA express incredulity that MSCC would spend money on such a study when the result would be a significantly lower emission limit than MSCC would be subject to without conducting a study.

Response: The commenter is correct that Mr. Long's January 31, 1996 letter to the State (document # II.F-19) did not speak to the issue of the NSPS as the applicable emission limit. As we note above, the scope of this letter was limited to the conduct of the fluid modeling demonstration, and thus, it is not surprising that it did not address ultimate SIP emission limits. At that point in time, EPA personnel were not focusing on ultimate emission limits and had not specifically considered or researched the rule's requirements regarding ultimate emission limits for sources seeking above-formula stack height credit. We have acknowledged that our meteorologist, whose expertise is modeling and meteorology, was not initially aware that the rule requires that the NSPS be met as an ultimate limit in above-formula circumstances. If he had been, he may have questioned MSCC's course of action. However, none of this changes the requirements of the regulations, and we believe we have a duty to disapprove the SIP because MSCC's limits are not consistent with the stack height regulations.

(p) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, pp. 26-27) stated that EPA Region VIII plainly misled both DEQ and MSCC on the NSPS limit issue and they have scrambled, since the summer of 1996, to shore up their position by dredging up whatever documentation they can find to support a claimed "long-standing" interpretation of the rule. The commenter complained that as of July

1996, EPA had only provided two documents to the State on EPA's NSPS limit position. The commenter asserted that all the other documents now cited by EPA were not provided to the State or MSCC on a timely basis, and EPA's position was not made known at a time when it would have been useful in the SIP process.

Response: We certainly did not intend to mislead the State and MSCC in any way. It is clear from the record that we informed the State that it was misapplying the stack height regulations before the State adopted SIP limits for MSCC. The State, with MSCC's concurrence, made a conscious decision to ignore our input.

We believe the commenter misrepresents our communications with the State on this matter between May and July 1996. As noted in the July 16, 1996 letter from Jim Madden to James Goetz that commenter cites (document # IV.A-18, MSCC Exhibit 156), EPA had provided detailed citations to relevant preamble language. This is the same preamble language we rely on now. As to the number of documents we provided to the State as of July 1996, or subsequently, we think this is irrelevant to our action in this matter. The fundamental issue is whether the SIP meets the requirements of the CAA and our regulations. It is our judgment that MSCC's emission limits, based on stack height credit of 97.5 meters, do not meet these requirements for the reasons stated in our proposal and elsewhere throughout this document. The State has had plenty of time to correct the problems with the SIP since we first informed them of the problems with MSCC's stack height credit, but has chosen not to do so.

(q) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, p. 26) stated that many of the documents in support of EPA's claimed long-standing interpretation of the NSPS emission rate issue are less than clear regarding the specific issue in question and the weight to be accorded these sources is questionable. The commenter noted that one of the documents is a letter to a particular law firm not involved in the present issue.

Response: We believe the documents cited are clear and indicate that we have held the NSPS emission limit position since the inception of the stack height regulations, and have continued to follow it subsequently. The letter to the law firm that the commenter demeans was an April 20, 1989 letter from Gerald A. Emison, an EPA Headquarters official at the time, to John Proctor, who represented Pennsylvania Electric Company (see document # II.A-7). That

letter addressed the very same issue that we are dealing with in this matter—whether the NSPS must be met as an emission limit by sources seeking above-formula stack height credit.

(r) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 88) stated that EPA points to the use of the term “allowable emission rate” in the regulation, but notes that the regulation does not use the term “enforceable emission rate” or “emission limitation,” even though these are terms within EPA's “lexicon.”

Response: The commenter is correct that we did not use these alternative terms in the regulation. We do not believe this changes the meaning of “allowable emission rate.” The Clean Air Act itself defines “emission limitation” to include “a requirement established by the State or the Administrator which limits the [* * *] rate [* * *] of emissions of air pollutants on a continuous basis[.]” (See section 302(k) of the Act.)

(s) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 88; MSCC letter, document # IV.A-20, comment # 2.P) stated that fluid modeling was available to ExxonMobil, without NSPS applying, and Conoco received GEP stack height credit above 65 meters without having to conduct fluid modeling. The commenter claimed that NSPS is not applied to any other source in this airshed by this SIP revision, but instead it is only applied to new sources as intended. The commenter stated that MSCC's treatment is inequitable, unreasonable, and inconsistent with the statute and rule.

Response: The NSPS did not apply to ExxonMobil's FCC CO-boiler stack because ExxonMobil performed fluid modeling to obtain credit for a within-formula stack height credit and not above-formula stack height credit. Likewise, the NSPS did not apply to Conoco because Conoco was not seeking above-formula stack height credit. Conoco received approval of their GEP formula height stack on June 7, 1989 (54 FR 24334). The actual stack height is 82.3 meters and the formula height is 75.7 meters. In the Billings/Laurel SO2 SIP, the MDEQ initially modeled Conoco's stack at the 82.3 meters. However, in a letter to the MDEQ dated December 15, 1994, we indicated that the State needed to justify using the higher stack height (see document # IV.C-17). On April 14, 1995, the State sent a letter to the Billings SO2 Parties indicating that there was a revision in the Dispersion Modeling Scenario (see document # IV.C-39). Among other things, the letter indicates that the new

compliance demonstration will use the 75.7 meters stack height credit for Conoco. Subsequent modeling done by the State has used the 75.7 meters stack height credit at Conoco. MSCC may avoid application of the NSPS in this SIP by accepting GEP stack height credit of 65 meters. MSCC will only be subject to an NSPS limit if it insists on above-formula stack height credit. This result follows from our stack height regulations, and we do not believe it is inequitable.

(t) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 41) indicated that MSCC has been treated inequitably compared to ExxonMobil, that ExxonMobil was allowed to make a fluid modeling demonstration to demonstrate within formula GEP height, that formula height was calculated based on a rounded nearby structure that is taller than it is wide, but that GEP credit was really based on the Billings Generation Inc. (BGI) structure that creates downwash at MSCC.²⁶ According to the commenter, this BGI structure is further from ExxonMobil than it is from MSCC. The commenter asserted that because ExxonMobil was able to conduct a within formula determination, it is not being required to meet an NSPS limit like MSCC, and this is unfair. Another commenter (CPP letter, document # IV.A-18, exhibit A, p. 7 and Attachment I) made essentially the same comment.

Response: We do not believe MSCC has been treated inequitably or unfairly. ExxonMobil properly calculated a formula height of 76.7 meters and then demonstrated the validity of that formula height through a fluid modeling demonstration. For ExxonMobil, the formula height of 76.7 meters was calculated considering four solid components imbedded in a lattice framework. The four imbedded components are the elevator (3.2 m by 5 m by 49.2 m), the regenerator (7.6 m in diameter and 30 m high), the reactor (6.1 m in diameter and 53.4 m high) and the fractionator (3.2 m in diameter and 45.3 m high). The calculated stack height was based on the four structures, which are within 5L of the stack in question, and not the lattice framework, and was determined by using our Building Profile Input Program (BPPI) software. (See document # II.F-2.)

The formula used to determine the formula stack height is $H_g = H + 1.5 L$, where H_g is the good engineering practice stack height measured from the ground elevation at the base of the stack, H is the height of nearby structure(s)

²⁶ BGI is now the Yellowstone Energy Limited Partnership (YELP).

measured from the ground-level elevation at the base of the stack, and L is the lesser dimension, height or projected width, of nearby structures. In the BPIP modeling for ExxonMobil, H was determined to be 45.29 m and L was determined to be 20.95 m. In other words, the structures together were taller than they were wide, but their projected width was significantly greater than MSCC's stack support structure and their height was significantly less. These structures were not a stack or TV or radio transmission tower, which our GEP Guideline states should not be considered in GEP stack height determinations. "Guideline for Determination of Good Engineering Practice Stack Height (Technical Support Document for the Stack Height Regulations (Revised)," June 1985, EPA-450/4-80-023R, at p. 7 (document # II.A-12). In addition, these structures were not part of the stack for which formula height was being determined. MSCC's situation is different—the stack support structure cannot be used to calculate formula height.

In ExxonMobil's case, we believe formula height was properly calculated, and because ExxonMobil was only seeking stack height credit equivalent to formula height, ExxonMobil was permitted to make a fluid modeling demonstration under 40 CFR 51.100(kk)(2) rather than subsection (kk)(1). Under subsection (kk)(2), a source is only required to use its SIP limit (or if there is none, its actual emissions rate) in fluid modeling, and is not required to meet an NSPS limit as is the case for sources seeking above-formula stack height credit under subsection (kk)(1). Because MSCC was seeking above-formula stack height credit, subsection (kk)(1) applied.

In addition, in a fluid modeling demonstration, our rules allow consideration of structures up to one-half mile from the stack, even if one-half mile is not nearby for purposes of calculating formula height. 40 CFR 51.100(jj)(2). Thus, it is irrelevant that the formula height calculation for ExxonMobil was not based on the BGI structure, but that the fluid modeling modeled the BGI structure.

In our view, any differences in treatment of ExxonMobil and MSCC result from the proper application of our stack height regulations. Under our regulations, there is no question that physical layout plays a role in formula and GEP determinations. The layout of the ExxonMobil facility allowed ExxonMobil to calculate formula height based on the four structures contained within the lattice; these structures were within 5L of the stack. At MSCC, there

were no structures within 5L of the stack on which MSCC could calculate formula height greater than 65 meters. This difference, which seems inequitable to the commenters, is inherent in the rule. We understand that downwash effects present at 4.9L do not magically disappear at 5L, but this is the line EPA drew in the stack height regulations, and the regulations were upheld by United States Court of Appeals for the D.C. Circuit. To the extent the comment goes to the validity of the stack height regulations, we do not believe the comment is timely or relevant to this rulemaking.

(u) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 24) stated that two existing sources in Billings erecting stacks after 1977 were granted credit for stacks without a precondition that NSPS controls be installed. According to the commenter, both credits were based on tall thin structures, albeit not as tall and thin as MSCC's structure.

Response: The commenter has not provided sufficient information for us to completely respond to the comment. If the commenter is referring to ExxonMobil and Conoco, see our responses to the above comments. If the commenter is referring to Cenex, we note that Cenex was required to raise some stacks as a result of the 1977 Stipulation. However, none of Cenex's stacks are above 65 meters and the NSPS "precondition" would not apply. In fact, except for MSCC, the only other sources in the Billings/Laurel SIP where the stack height credit in the modeling is greater than 65 meters are Conoco's boiler stack at 75.7 meters (*see* discussion above), ExxonMobil's FCC CO-boiler stack at 76.7 meters (*see* discussion above), and Montana Power's stack at 106.7 meters. Montana Power's GEP stack height credit was approved on June 6, 1989 (54 FR 24334). The June 6, 1989 **Federal Register** notice indicates that Montana Power's stack height credit was grandfathered. None of these stacks are subject to the NSPS precondition requirement.

(v) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 89) asked why any existing source already automatically eligible for a more lenient-than-NSPS short term and annual limitation at 65 meters would accept an NSPS limit on its pre-NSPS facility as a pre-condition of receiving credit for GEP above 65 meters. In a similar vein, another commenter (Goetz letter, document # IV.A-18, exhibit D, p. 25) stated that it would not make sense for a source to expend the resources of a fluid modeling demonstration to justify above-formula stack height credit

if the source must meet the NSPS as an operating limit. These commenters claimed that under EPA's reading, the rule has no utility. According to these commenters, although EPA argues that conditions other than downwash may be controlling in dispersion modeling to set emission limitations, EPA's argument is sophistry. The commenters asserted that EPA has pointed to no real-world example of where this rule has proved useful in such a situation. One of the commenters asked EPA to provide documentation of specific cases where the above-formula stack height rule has been used in a case that fits this category. In addition, the commenter claimed that documents EPA cited in its proposal and TSD do not support the proposition that conditions other than downwash may be more controlling in some cases.

Response: First, we would not expect an existing source with an emission limit more lenient than the NSPS at a 65 meter stack height credit to seek above-formula stack height credit. In fact, we explicitly recognized this in the preamble to the stack height regulations:

In the event that a source believes that downwash will continue to result in excessive concentrations when the source emission rate is consistent with NSPS requirements, additional stack height credit may be justified through fluid modeling at that emission rate.

A source, of course, always remains free to accept the emission rate that is associated with a formula height stack rather than relying on a demonstration under the conditions described here." 50 FR 27898, July 8, 1985.

By the same token, sources have no absolute entitlement to above-formula stack height credit. As stated before, the premise behind the above-formula provisions of the stack height regulations was that above-formula stack height credit would be granted rarely and with utmost caution. The D.C. Circuit recognized this as legitimate, and the NSPS requirement, as interpreted by EPA, effects this goal. The commenter believes MSCC has somehow been wronged because we have not interpreted our regulations to make it easier for MSCC to obtain above-formula stack height credit.

Second, we believe there are conditions under which a source would want to seek above-formula stack height credit even though it would have to meet the NSPS as an operating limit. As noted by the commenter, we mentioned one such possibility in our proposal—where conditions other than downwash may be controlling in dispersion modeling. Another example may be when a source would have to meet an

emission limit lower than the NSPS using within-formula stack height credit. Although we have not researched whether this situation has actually arisen "in the real world," we think the commenter's concern on this point is irrelevant. The stack height regulations were not intended to encourage sources to seek above-formula stack height credit or to make it easy for them to obtain such credit. 50 FR 27898, July 8, 1985.

In addition, the commenter ignores the possibility that a source could demonstrate the infeasibility of meeting the NSPS limit and justify a higher, alternative limit. See 40 CFR 51.100(kk)(1). Again, a source might want to do this if it would have to reduce emissions below this alternative limit based on within-formula stack height credit.

Regarding the documents cited in our proposal for the proposition that conditions other than downwash may be more controlling, we have discovered that there are two different versions of the Guideline for Determination of Good Engineering Practice Stack Height. In the version we included in our rulemaking docket, the relevant item in Table 3.1 is Item G. In the version submitted by the commenter, the relevant item in Table 3.1 is Item F. In either case, Footnote 3 to the relevant Item states, "Where some other meteorological condition is more controlling than downwash, adjust the emission rate to avoid a violation of a NAAQS or available PSD increment." We note that the commenter cites to Item F on the prior page of his comments.

Language from the discussion of above-formula stack height credit in the preamble to the stack height regulations also touches on the possibility that conditions other than downwash may be controlling:

An additional theoretical complication is presented when an absolute concentration is used where meteorological conditions other than downwash result in the highest predicted ground-level concentrations in the ambient air. In such cases, a source that has established GEP at particular height, assuming a given emission rate, may predict a NAAQS violation at that stack height and emission rate under some other condition, e.g., atmospheric stability Class "A." 50 FR 27899, col. 1.

(w) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, p. 19) stated that it is obvious that MSCC would not have undergone the considerable expense of more wind tunnel modeling if it had known the NSPS would be imposed as an actual emission limit because the NSPS

standard was a mere fraction of the emission limit already proposed by DEQ for a 65 meter de minimis stack.

Response: Although MSCC may well have chosen not to conduct additional wind tunnel modeling, it is also possible MSCC may have pursued additional wind tunnel modeling because, even if we had at that point informed MSCC that the NSPS would be the applicable emission limit, MSCC may have chosen to ignore, or, as MSCC has in fact chosen to do, contest our position. As we have noted elsewhere in this document, MSCC proceeded with other stack height theories even after MSCC was aware that we would reject those theories. In any event, this comment is not relevant to the central issue, which is whether the stack height regulations require that the NSPS or BART emission rate serve as a cap on SIP limits in above-formula situations.

(x) *Comment:* One commenter (MSCC letter, document # IV.A-19, p. 3; MSCC letter, document # IV.A-20, comment # 1.M) stated that MSCC could not feasibly install controls to achieve an NSPS level of control, and cites to an expert's opinion regarding the subject.

Response: We are not forcing MSCC to seek above-formula stack height credit. The requirement to at least meet the NSPS is a byproduct of MSCC's decision to seek above-formula stack height credit. If MSCC accepted the regulatory 65 meter credit, it could have emissions limits significantly less stringent than the NSPS.

In addition, our regulations provide an opportunity for the State/source to make a showing that the source cannot achieve an NSPS level of control. We offered the State and MSCC the opportunity to demonstrate infeasibility, but MSCC did not do so (see document #'s II.C-12 and IV.C-40). MSCC seemed unwilling to make the attempt without some assurance that the attempt would be successful (see document # IV.C-41 and document # IV.A-17, MSCC Exhibit 19). The State did not set an alternative BART limit based on an infeasibility showing by MSCC, and therefore, this issue is not properly before us in this action. The commenter's mere assertion of infeasibility does not provide a basis for us to disregard the requirements of the stack height regulations. We note that MSCC installed a SuperClaus unit in late 1998 despite its claims that it was not "economically practical or feasible" to do so (see document # IV.C-42 and document # IV.A-17, MSCC Exhibit 126, Direct Testimony of Larry Zink, "In the Matter of the Application of the DEQ for Revision of the Montana State Air Quality Control of SO₂

Emissions in the Billings/Laurel Area * * *", December 5, 1995, pp. 27, 36.)

(y) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 98) stated that EPA uses the term "alternative rate" interchangeably with "allowable emissions rate," and the commenter implied that this somehow undercuts EPA's reading of "allowable emissions rate" as meaning a rate that a source would have to meet and not just assume for purposes of a fluid modeling demonstration.

Response: The regulation says the allowable emissions rate shall be the NSPS unless a source demonstrates that the NSPS is infeasible, in which case an alternative emission rate shall be established. Both phrases, at root, use the term "emission rate." We believe it is reasonable to read this to mean that such alternative emission rate would become the allowable emissions rate for purposes of the preceding sentence in the regulation.

(z) *Comment:* One commenter stated (MSCC letter, document # IV.A-19, comment # 100; MSCC letter, document # IV.A-20, 2nd comment #'s 5.A, B, C, D, F, and G) that MSCC is a well-controlled source, citing to the SO₂ reductions MSCC has achieved for many years in the area.

Response: We are aware that MSCC removes sulfur compounds from ExxonMobil's effluent stream. However, to the extent the commenter is referring to "well-controlled" as a term of art in the preamble to our stack height regulation, this term refers to an NSPS limit or a BART alternative limit. To date, neither the State nor MSCC has been willing to adopt the NSPS as a limit for MSCC. If the commenter is using the term more generally, it is not relevant to our review of the SIP. Our obligation under the CAA is to ensure that the requirements of the CAA and our regulations are met. MSCC may or may not be "well-controlled" in the generic sense, but MSCC's main stack limits have not been set in accordance with our stack height regulations, and certain other aspects of the SIP, which pertain to MSCC and other sources, are deficient under the CAA and our regulations. It is entirely possible the State could fix the SIP problems without imposing additional emission reductions on MSCC. For purposes of a SIP, the State chooses how to allocate the emissions reduction burden among sources, not EPA. We review the State's choices to ensure that the SIP meets the requirements of the CAA.

(aa) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 94) stated that the stack height regulations impose less stringent

requirements for PSD sources attempting to justify above-formula stack height credit through fluid modeling than they impose on existing sources doing so. In the commenter's view, this seems odd since PSD sources are increasing emissions in an area. The commenter found it difficult to understand this apparent contradiction, particularly since EPA appears to believe reducing emissions is the principal and overriding purpose of section 123 of the CAA. The commenter appeared to suggest that the NSPS rate prescription in 40 CFR 51.100(kk)(1) only applies to PSD sources. The commenter thought it is unlikely that NSPS forms an upper bound for PSD sources, but instead is an acceptable rate for a fluid modeling demonstration, regardless of more stringent requirements applicable to the source. The commenter wondered whether MSCC is subject to the PSD program.

Response: First, the commenter mischaracterizes our interpretation of section 123 of the CAA. The principal purpose of section 123 is to prevent sources from using excessive stack height as a means to meet the NAAQS. In any given SIP, sources may be able to justify higher stack height credit and thereby increase emissions or keep emissions the same. This is highly situation-dependent. Clearly Congress did not want to allow use of stack height greater than GEP at the expense of emissions controls.

Second, although the commenter may find this distinction odd, it does not change the regulatory requirements that apply to non-PSD sources. The commenter's recourse if it wished to challenge the distinction between non-PSD and PSD sources was to seek review of the original regulations within 60 days of promulgation. It may not challenge the regulations now.

Third, PSD sources that are being considered in SIP development are likely to be existing sources that happen to be subject to a PSD permit, not necessarily a new or modified source adding emissions to an area. Also, stringent modeling requirements apply to new or modified PSD sources to ensure that they do not interfere with attainment or maintenance of the NAAQS.

The practical implications of the distinction between non-PSD and PSD sources are probably insignificant because PSD sources are necessarily meeting Best Available Control Technology (BACT) limits that, by definition, are at least as stringent as the NSPS. See 40 CFR 51.166(b)(12). Thus, although the fluid modeling requirements for PSD sources appear to

be less stringent, the control requirements applicable to PSD sources are generally more stringent than those that apply to non-PSD sources, and such sources have already undergone stringent modeling requirements to receive their permits.

Regarding EPA's selection of the NSPS for above-formula demonstrations and the fact that this does not really comprise an upper bound for PSD sources, EPA selected a single level for all sources seeking above-formula stack height credit. PSD sources are already well-controlled; there was no need to establish some lesser cap on emissions.

To our knowledge, MSCC does not have a PSD permit, and thus, is not currently a PSD source. Additionally, our action on the SIP is not meant to imply any sort of applicability determination under the PSD program (Title I, part C of the Act) with respect to MSCC.

(bb) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, p. 23) stated that MSCC adopts and incorporates as part of its comments the analysis contained in a memo by DEQ attorney Jim Madden to Mark Simonich dated August 1, 1999 (*sic*, should be 1996) (attachment to document # II.C-9).

Response: We have thoroughly analyzed and responded to the analysis contained in Mr. Madden's memo in our TSD, at pages 58-67, and in this document.

2. Issues Related to Best Available Retrofit Technology (BART)

We received a number of comments regarding an alternative BART limit for above-formula stack height demonstrations. Although we discussed with the State and MSCC the provision of our regulations that allows sources the opportunity to show that an NSPS limit is infeasible and then to develop an alternative BART limit, MSCC did not attempt to make the requisite showings. Consequently, the State did not approve an alternative BART limit for MSCC, and no alternative BART limit has been submitted to us for approval. Therefore, we believe the majority of comments regarding an alternative BART limit are irrelevant to our action. Nevertheless, we are responding to the comments regarding BART. Nothing in the comments has caused us to change our position regarding disapproval of MSCC's stack height credit.

(a) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 22, 99, 103; MSCC letter, document # IV.A-20, comment # 1.I) stated that EPA's arguments regarding BART and

feasibility studies are spurious and hypocritical. The commenter suggested that EPA has inadequately defined BART and that therefore the opportunity to demonstrate the infeasibility of meeting the NSPS limit and establish an alternative BART limit amounts to impermissibly vague regulation. The commenter asserted that no successful BART or feasibility analysis has ever been done regarding implementation of stack height rules. The commenter alluded to a BART analysis for another source that EPA rejected. The commenter complained that the BART guidelines are guidance and not regulations and that they are not authorized under section 123 of the Act.

Response: Since the State did not adopt an alternative limit for MSCC, based on an infeasibility showing, the commenter's arguments regarding BART and our application of the regulations are irrelevant to our action on the SIP before us. In addition, to the extent the commenter is objecting to an alleged flaw in the stack height regulations, the objection could only be raised in a challenge to the stack height regulations and is irrelevant to our action. Nevertheless, we are responding to the comment.

We disagree with the commenter. We believe the BART guidelines adequately define criteria and a process for determining the feasibility of employing particular control technology or meeting particular emission limits. These guidelines are similar to guidelines for establishing BACT for a new source or source modification, guidelines that have been used successfully on many occasions to establish emission limits in the PSD program. Whether or not the BART guidelines have been used successfully in the stack height context does not mean the guidelines are inadequate or overly vague. It is true that the State and EPA retain discretion to review and approve a source demonstration regarding feasibility and BART, but this is true in the PSD context and other contexts as well. Certainly our discretion is limited by applicable standards under the Administrative Procedure Act.

Contrary to the commenter's assertion, we *did* provide information regarding BART and infeasibility showings (see document #'s II.C-12 and IV.C-40). It seems the commenter expected us to propose an alternative BART limit for MSCC. However, the regulations make clear that in the first instance the source must demonstrate that it cannot meet the NSPS limit. MSCC did not attempt to make such a showing.

(b) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 24; MSCC letter, document # IV.A-20, comment # 1.1) stated that SIP time frames, and threatened sanctions, preclude the use of alternative limits for above-formula sources. The commenter stated that because of this, the *NRDC v. Thomas* court should review its decision.

Response: We believe that a source and state could develop an alternative emission limit in the time frame for SIP development. In any event, we believe this comment goes to the validity of the stack height regulations themselves, and is neither timely nor relevant to our action on the SIP before us. We note that MSCC and the State had more than ample time to conduct an infeasibility analysis in this case. We informed the State of our position regarding the NSPS and the stack height regulations in May of 1996, and subsequently invited MSCC and the State to make an infeasibility showing. MSCC had over three years in which to make such a showing before we finally proposed our action on the SIP in July of 1999.

(c) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment #s 24, 25) stated that section 123 requires EPA to promulgate regulations defining GEP and that EPA cannot define the parameters for a feasibility analysis through guidance or staff pronouncements. The commenter went on to say that if section 123 of the Act grants power to EPA employees to define GEP or feasibility analyses outside of regulations, it is so broad a delegation of power as to deny reasonable due process.

Response: The commenter is asserting a harm to MSCC that is purely speculative. MSCC did not attempt to perform an infeasibility analysis, the State did not adopt an alternative (to NSPS) limit for MSCC, and the State did not submit such a limit to us for approval as part of the SIP. The commenter assumes there was insufficient time to make the necessary showing and analysis and assumes that we would have acted arbitrarily and capriciously if the State had submitted an alternative limit for MSCC. The commenter is raising an issue that is unripe for review and has no relevance to our action on the SIP before us. Also, the commenter ignores the fact that in the preamble to our stack height regulations, we stated that we would rely on our BART guidelines in reviewing any rebuttals to the NSPS and alternative limits (see 50 FR 27898), and that NRDC challenged our intent to rely on the BART guidelines. The D.C. Circuit held that the BART guidelines

did not represent final agency action subject to review and dismissed NRDC's challenge (*NRDC v. Thomas*, 838 F.2d 1224, 1241, fn. 14 (D.C. Cir. 1988)), but the Court upheld our regulations.

(d) *Comment:* One commenter (MSCC letter, document # IV.A-19, p. 2) asserted that it is MSCCs "situation, not merely its position" that application of additional control technology is infeasible to achieve short term limits more restrictive than the current plan provides. The commenter stated that MSCC lacks the land and resources to further control SO₂. The commenter stated that it has invested substantial resources in reliance on the State's plan and findings.

Response: We are not permitted to consider economic or feasibility questions in evaluating the adequacy of a SIP. *Union Electric v. EPA*, 427 U.S. 246, 265-266 (1976). To the extent the commenter is suggesting MSCC should be allowed to use an alternative limit under our stack height regulations, MSCC has not demonstrated, and the State has not found, that MSCC cannot meet an NSPS limit. These are prerequisites before an alternative limit may be established. See 40 CFR 51.100(kk)(1). In fact, despite being offered the opportunity (see document # II.C-12), MSCC did not attempt to make an infeasibility showing.

We also note that when MSCC contested the State-proposed emission limit based on 65-meter stack height credit, MSCC claimed it was not "economically practical or feasible" to install an additional Claus unit; yet, MSCC has since installed an additional Claus unit. Document # IV.A-17, MSCC Exhibit 126, Direct Testimony of Larry Zink, "In the Matter of the Application of the DEQ for Revision of the Montana State Air Quality Control of SO₂ Emissions in the Billings/Laurel Area * * *", December 5, 1995, pp. 27, 36.

(e) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 101) asked a number of questions about the Asarco stack height situation in Montana and the outcome of any BART analysis for Asarco, and asked EPA to define the terms "well-controlled" and "infeasibility."

Response: The comment is more in the nature of a set of interrogatories than a comment. We are responding to comments but are not obligated to respond to interrogatories in conducting this rulemaking action. In any event, we believe the questions posed are not relevant to this rulemaking action, particularly since MSCC chose not to try to make an infeasibility showing and establish an alternative emission limit for the MSCC stack. However, Asarco

did not perform a BART analysis but instead assumed a de minimis stack height credit of 65 meters for the blast furnace stack in the attainment demonstration. We approved the 65 meter stack height credit for the blast furnace stack on January 27, 1995 (60 FR 5313).

3. Issues Related to the Montana Ambient Air Quality Standard (MAAQS)

Montana approved a stack height credit of 97.5 meters for MSCC's 100-meter stack based on a fluid modeling demonstration that MSCC's contractor (CPP) performed. Assuming an NSPS rate of emissions from the 100-meter stack, and adding in background concentrations, the particular demonstration the State approved showed an exceedance of the annual Montana Ambient Air Quality Standard (MAAQS) for SO₂ (52 micrograms per cubic meter), but not of the annual NAAQS for SO₂ (80 micrograms per cubic meter). As we explained in our proposed disapproval and TSD, our regulations require a fluid modeling demonstration under 40 CFR 51.100(kk)(1) to show an exceedance of the NAAQS. An exceedance of the MAAQS is not sufficient. We received numerous comments on this issue and have considered them. Nothing in the comments has caused us to change our position on this issue.

(a) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 95) stated that the use of the MAAQS is not logically inconsistent for the fluid modeling determination. The commenter argued that the State applied more stringent modeling requirements than were warranted.

Response: We continue to believe our interpretation, that the benchmark for fluid modeling must be the NAAQS, is reasonable and should be maintained. In the alternative, if a benchmark like the MAAQS is going to be used to justify higher stack height credit in a federally enforceable SIP, then the State must consistently apply the MAAQS in that SIP. This is not the case with the Billings/Laurel SO₂ SIP; the SIP is not intended or designed to achieve the MAAQS. The State cannot selectively choose to apply the MAAQS for inflating stack height credit, thereby increasing atmospheric loading and dispersion downwind, but not apply the more stringent ambient standard in setting SIP emission limits. Either the MAAQS are a health-based standard for SIP purposes or they are not.

We are not sure what the commenter is referring to when he claims that the State imposed more stringent modeling

requirements than it had to, but we believe that this claim does not resolve the issue related to the MAAQS or undermine our interpretation.

(b) *Comment:* Several commenters (MSCC letter, document # IV.A-19, comment # 95; State letter, document # IV.A-23, p. 15; Goetz letter, document # IV.A-18, exhibit D, p. 27; CPP letter, document # IV.A-18, exhibit A, p. 6) stated that EPA's rules define excess concentrations in terms of an impact on "an ambient air quality standard," not a "national standard" or "national ambient air quality standard."

According to the commenters, the term ambient air quality standard clearly includes the MAAQS. The commenters asserted that because the rule is clear, it is not necessary to resort to the preamble to interpret it. The commenters claimed that even if one examines the preamble, the preamble supports the interpretation that "ambient air quality standard" includes the MAAQS. Furthermore, the commenters stated that if EPA had wanted to limit a fluid modeling demonstration to the NAAQS, it knew how to do so. One of the commenters (MSCC) asserted that neither the statute nor EPA regulations specify the NAAQS. Finally, the commenters argue that EPA recognized in a 1990 memorandum that the express language of the rules is not limited to the NAAQS, and that, on a case-by-case basis a more stringent state standard could be used.

Response: Given that "ambient air quality standard" is not a defined term in the regulations, we think it is entirely appropriate to consult the preamble and other documents. The preamble to the regulations clearly indicates that "ambient air quality standard", as used in 40 CFR 51.100(kk)(1), was intended to mean a NAAQS. For example, we stated the following in the preamble to the final regulations:

For these reasons, we are requiring sources seeking credit for stacks above formula height and credit for any stack height justified by terrain effects to show by field studies or fluid modeling that this height is needed to avoid a 40-percent increase in concentrations due to downwash and that such an increase would result in exceedance of air quality standards or applicable PSD increments. This will restrict stack height credit in this context to cases where the downwash avoided is specified by regulation or by act of Congress as possessing health or welfare significance. (50 FR 27898, July 8, 1985, emphasis added.)

When we promulgated the regulation, we were not contemplating state air quality standards. In fact, the preamble specifically mentions the NAAQS in many places without any reference to

possible alternative state ambient standards. The following quotes are informative:

The EPA's reliance on exceedances, rather than violations of the NAAQS and PSD increments, is deliberate. (50 FR 27898.)

Since a source can only get stack height credit to the extent that it is needed to avoid a PSD increment or NAAQS exceedance, * * * (50 FR 27898)

[T]he second way to justify raising a stack is to demonstrate by fluid modeling or field study an increase in concentrations due to downwash that is at least 40-percent in excess of concentrations in the absence of such downwash and in excess of the applicable NAAQS or PSD increments. (50 FR 27899)

Likewise, our response to comments document for the stack height regulation states that it would not be appropriate to use a concentration below the NAAQS "as a precaution to avoid health and welfare effects," because doing so would not be responsive to the health and welfare concerns articulated by the *Sierra Club* court (*Sierra Club v. EPA*, 719 F.2d 436 (D.C. Cir. 1983). Response to Comments on the November 9, 1984, Proposed Stack Height Rules, prepared July 1985 by EPA's Office of Air Quality Planning and Standards, at 36 (document # II.A-8).

The preamble to our proposed stack height regulation is also on point. The term "ambient air quality standard" was used in the proposed regulations exactly as it is used in the final regulations. The preamble to the proposal describes the requirements as follows:

The proposed regulation requires that the downwash, wakes, or eddy effects induced by nearby structures or terrain features results in an increase in ground-level pollutant concentrations that: (a) Causes or contributes to an exceedance of a NAAQS or applicable PSD increment; * * *

Because the NAAQS represent pollutant concentrations which the Agency has previously determined to result in adverse health and welfare effects, the inclusion of the exceedance of a NAAQS in the definition of "excessive concentrations" provides a straightforward response to the court's directive. (49 FR 44881, November 9, 1984)

It is clear that we interpreted ambient air quality standard to mean NAAQS. This is how the United States Court of Appeals for the D.C. Circuit understood the regulations (*see NRDC v. Thomas*, 838 F.2d 1224, 1240 (D.C. Cir. 1988)) and this interpretation is supported by other documents as well. The 1990 memo (document # II.F-13) referenced by one commenter (State) states that EPA interprets "ambient air quality standard" to mean national ambient air quality standard. To the extent the memo allowed for consideration of some other benchmark on a case-by-case

basis, we believe that the State has not made an adequate showing that use of the MAAQS in this case is justified or would result in more stringent requirements than our regulations impose. In fact, just the opposite would be the case.

We also note that the March 4, 1991 letter to which we attached the 1990 memo stated our conclusion that Asarco's field studies had not demonstrated that stack height above GEP formula height was justified. Among the reasons we gave for reaching this conclusion was that the studies had not shown an exceedance of the 3-hour *national ambient air quality standards for SO₂*. (March 4, 1991 letter from Irwin L. Dickstein to Jeffrey T. Chaffee (document # II.F-14), emphasis added.) Also, in our September 16, 1994 letter from Douglas Skie to Jeffrey Chaffee regarding ExxonMobil's GEP stack height credit (document # IV.A-17, MSCC Exhibit 123) we stated that the definition of "excessive concentrations" required an exceedance of the applicable NAAQS.

We also find it striking that more than one of the commenters, in objecting to other aspects of our stack height analysis, rely on EPA documents that clearly contemplate use of the NAAQS in fluid modeling demonstrations. For example, one commenter (Goetz, document # IV.A-18, exhibit D, pp. 24-26) cites extensively from our Guideline for Determination of Good Engineering Practice Stack Height (Technical Support Document for the Stack Height Regulations), which, in Table 3.1, item F, clearly indicates that excessive concentration is to be judged against the NAAQS. The State (document # IV.A-23, p. 20, footnote 19) refers to an October 6, 1988 letter from Marcia Mulkey, EPA Region III, to John Proctor, attorney for Pennsylvania Electric Company (document # IV.C-65), which indicates our stack height regulations require an analysis of whether downwash causes an exceedance of an applicable NAAQS. These commenters never mention these references to the need to use the NAAQS.

It is true that the statute does not specify the NAAQS in referring to excessive concentrations. However, this is irrelevant because Congress did not define excessive concentrations at all and instead left it to EPA to promulgate regulations to address issues related to stack height demonstrations.

The State and other commenters have merely assumed that the phrase "ambient air quality standard" encompasses a state-adopted ambient air quality standard. However, they offer

no compelling reason that their interpretation of our regulation is reasonable. On the other hand, we have a compelling reason that our longstanding interpretation of the phrase *is* reasonable—namely, that our interpretation will effectuate Congressional purpose, as interpreted by the courts and by EPA. Our interpretation is entitled to deference.

(c) *Comment:* More than one commenter (MSCC letter, document # IV.A-19, #'s 18, 95; MSCC letter, document # IV.A-20, # 1.B; State letter, document # IV.A-23, p. 15) stated that EPA has already approved into the SIP Montana's stack height regulations, which are essentially equivalent to those of the federal government, and which allow the MAAQS to be used in fluid modeling demonstrations. The commenters claimed that if EPA had intended that the NAAQS must be used in place of the MAAQS in a fluid modeling demonstration, EPA would have disapproved the part of Montana's rules that cross-reference the MAAQS. Furthermore, the commenters asserted that EPA has delegated the authority for such determinations to the state of Montana.

Response: First, we do not believe we are bound by the terms of the Montana stack height regulations in reviewing the Billings/Laurel SIP. Instead, we believe we have an independent obligation to ensure that the Billings/Laurel SIP meets the requirements of section 123 of the Act and our stack height regulations, regardless of the terms of the stack height regulations in the State SIP. The Court of Appeals for the D.C. Circuit said as much in *Sierra Club v. EPA*, 719 F.2d 436, 469 (D.C. Cir. 1983):

Moreover, we see no place for such state regulations in EPA's own final regulations. The regulations are detailed and precise and do not mention alternative means of compliance from which the states may pick and choose.

As we noted in our proposal, we believe our regulations intended "ambient air quality standard" to refer to the NAAQS. The preamble makes this evident. Also, the application of the MAAQS in a fluid modeling demonstration makes it easier for a source to demonstrate excessive concentrations, as defined in our stack height regulations, and thus justify an above-formula stack height credit. Clearly, we did not intend such a result, particularly where, as in this case, the SIP revision has not even been designed to attain the substitute ambient standard (the MAAQS).

No commenter has pointed to any limits or plan that is designed to achieve

the MAAQS, and in reading the State's regulations, we have found no requirement for a plan. Instead, it is not clear how the MAAQS are enforced by the State.

Assuming for the sake of argument that we *are* bound by the Montana SIP stack height regulations, we do not think those regulations stand for the proposition argued by the commenters. Following our promulgation of our July 8, 1985 stack height regulations, we approved Montana's stack height regulations (16.8.1204 through 16.8.1206, ARM, effective June 13, 1986) as part of the SIP on June 7, 1989 (*see* 40 CFR 52.1370(c)(18), 54 FR 24334). That version of the Montana regulations cross-references "an ambient air quality standard as provided in subchapter 8." *See* document # IV.C-45. Subchapter 8 was not submitted as part of the SIP. When we approved Montana's stack height regulations in 1989, subchapter 8 exempted the Billings/Laurel area from the MAAQS. *See* document # IV.C-70.²⁷ This is because in 1987, the Montana legislature enacted the "Hannah Bill," which directed the Montana Board of Health and Environmental Sciences to amend subchapter 8 to exempt Billings/Laurel sources from the SO₂ MAAQS. *See* document # IV.C-67. Following this directive, the Board of Health and Environmental Sciences revised subchapter 8 of the air quality regulations, effective August 28, 1987. *See* document # IV.C-70. Thus, when we approved the Montana stack height regulations, only the SO₂ NAAQS applied in the Billings/Laurel area.

Given that the NAAQS applied in the Billings/Laurel area as a matter of State law at the time we approved the Montana stack height regulations, we believe it is reasonable to interpret the federally-approved Montana stack height regulations as requiring the use of the NAAQS in fluid modeling demonstrations. At the very least, the applicable ambient air quality standard has been a moving target under Montana law. As recently as 1997, the State air quality regulations continued to exempt the Billings/Laurel area from the MAAQS. *See* document # IV.C-77. This exemption was in effect when MSCC conducted fluid modeling in 1995 and 1996, and when the State adopted SIP limits for MSCC in the summer of 1996.

²⁷ Subchapter 8 described this exemption in a rather oblique fashion, by indicating that persons causing or contributing to exceedances of the MAAQS during 1985 would only need to meet the NAAQS for SO₂, not the MAAQS. *See* document # IV.C-70. This language was specifically designed for the Billings/Laurel area, which exceeded the MAAQS for SO₂ in 1985. *See* Montana 1986 Network Review, document # IV.C-68.

The State did not remove the Hannah exemption from its regulations until September 1997. *See* document # IV.C-77.

According to the State, subchapter 2 is the present successor to subchapter 8. *See* State letter, document # IV.A-23, p. 15. As the State notes in its comments, subchapter 2 not only contains the MAAQS, but also incorporates the NAAQS by reference. State letter, document # IV.A-23, p. 16, footnote 16. The NAAQS are clearly within the definition of an "ambient air quality standard" as used in the State's current stack height regulation. *See* document # IV.C-64, section 17.8.201(2). Even if this version of the State regulation could be considered to govern this situation, under its own regulation, the State has a choice of ambient standards to apply. The State, in its comments, offers no basis to choose the MAAQS over the NAAQS for purposes of making a fluid modeling demonstration. We believe it is rational and necessary to choose the NAAQS when establishing stack height credit for purposes of setting a limit to achieve the NAAQS. The State has offered no rational basis for selecting the MAAQS for this purpose, and under our reading of the relevant laws, and the purposes behind section 123 of the CAA, it was inappropriate for the State to select the MAAQS. This merely made it easier for MSCC to demonstrate an "excessive concentration" and higher stack height credit.

In response to the comment claiming delegation, we have not "delegated" to Montana sole discretion to determine GEP stack height. We are required to independently determine whether this SIP revision meets the requirements of section 123 of the CAA, independent of any determination made by the State. *See* sections 110(k)(3) and 123 of the Act.

(d) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 48; MSCC letter, document # IV.A-20, comment # 1.C) stated that EPA's objections to use of the MAAQS in MSCC's fluid modeling demonstration are spurious. The commenter asserted that lack of federal enforceability does not make the MAAQS irrelevant in a fluid modeling demonstration, any more so than a nuisance demonstration by a state need be based on a federally enforceable "nuisance" concentration as provided in another part of the rule.

Response: Taken to its logical conclusion, the commenter's argument would mean it would be acceptable for a state to establish an ambient standard of zero for purposes of fluid modeling demonstrations, that would be unenforceable through the SIP. Such a

zero standard would make the ambient air quality standard portion of the rule meaningless, leaving only the 40% standard for fluid modeling demonstrations. This is clearly not acceptable, as the *Sierra Club* court held in requiring that EPA revise the rule using a health-based requirement for fluid modeling demonstrations. See *Sierra Club v. EPA*, 719 F.2d 436, 446–450 (D.C. Cir. 1983). We believe our interpretation of the rule is reasonable—at the very least, the ambient air quality standard must be cognizable under the SIP. Otherwise, states will be able to circumvent the purposes of the rule—to prevent states from achieving local compliance with the NAAQS at the expense of downwind states and to prohibit inappropriate use of dispersion instead of emissions control.

The commenter's attempt to analogize a nuisance showing under 40 CFR 51.100(kk)(2) fails because (kk)(2) applies to within formula demonstrations, for which EPA consciously selected a less rigorous standard. In order to preserve Congressional and EPA intent regarding the granting of above-formula stack height credit, the ambient air quality standard referred to in 40 CFR 51.100(kk)(1) must at least be federally cognizable through the SIP.

(e) *Comment:* Several commenters (MSCC letter, document # IV.A–19, comment #s 48, 93; Goetz letter, document # IV.A–18, exhibit D, pp. 21, 27, 28) stated that EPA's modeler advised the State that use of the MAAQS would be acceptable in the fluid modeling demonstration. According to one of the commenters (Goetz), in a telephone conversation with Dr. Petersen in the Spring of 1996, EPA's modeler indicated that EPA was going to agree with the State's recommendation that a MAAQS exceedance demonstration is sufficient and that the regulation “clearly says an exceedance of an ambient standard which MAAQS is.” Another commenter (CPP letter, document # IV.A–18, exhibit A, p. 6) made essentially the same claim. Mr. Goetz asserted that EPA's objection to use of the MAAQS is trivial, something EPA's modeler recognized.

Response: Although EPA's modeler²⁸ may have at one time indicated that the use of the MAAQS would probably be acceptable, the official EPA position is that use of the MAAQS is not consistent with the stack height regulations. Our other responses in this document

explain why the use of the MAAQS is not appropriate. We note that we had raised the issue of using the MAAQS in a March 15, 1996 letter (document # II.F–20) to the State that Mr. Goetz cites for other purposes. Our modeler did not indicate that the issue was trivial, and we do not believe our objection to the use of the MAAQS is trivial.

(f) *Comment:* One commenter (MSCC letter, document # IV.A–19, comment #s 93, 95) argued that the MAAQS are cognizable under federal law and that EPA's position regarding the MAAQS makes no sense given that fluid modeling demonstrations can justify above-formula credit based on an exceedance of the PSD increment which is much smaller than the NAAQS or MAAQS. According to the commenter, the rules do not contain the restrictions EPA asserted, and section 123 of the Act makes no mention of ambient standard.

Response: For the reasons discussed elsewhere in this document, we do not agree that the MAAQS are “cognizable” under federal law. We have no mechanism to ensure the MAAQS will be met. Regarding the use of the PSD increment in fluid modeling, this is only available to sources that are subject to PSD (see 40 CFR 51.100(kk)(1)); Response to Comments on the November 9, 1984 Proposed Stack Height Rules, July 1985, at pp. 32, 38, document # II.A–8), and, thus, that have already installed BACT. Thus, these sources have already been controlled to at least NSPS levels, and usually well beyond. See 40 CFR 51.166(b)(12). In addition, unlike the MAAQS, PSD increments are federally enforceable standards that are addressed in SIPs. It is irrelevant that section 123 does not mention “ambient standard;” our regulations *do* use the term.

(g) *Comment:* One commenter (State letter, document # IV.A–23, p. 16) stated that EPA did not adopt rules that required use of the NAAQS in the fluid modeling demonstration, or disapprove a provision in the Montana SIP that allowed use of the MAAQS, because to do so would be contrary to section 116 of the CAA, which expressly recognizes that states may adopt and enforce standards, such as the MAAQS, that are more stringent than federal standards.

Response: First, as explained in response to a prior comment, we did adopt a rule that requires the use of the NAAQS in a fluid modeling demonstration. Second, there is nothing in section 116 that would prevent EPA from doing so or that would prevent EPA from disapproving a provision in a SIP that allows use of a lower air quality standard in a fluid modeling demonstration. Section 116 reserves to

states the right to generally adopt requirements more stringent than federally required, except in certain pre-empted areas. See *Union Electric Co. v. EPA*, 427 U.S. 246, 263–264 (1976). The State's use of the MAAQS to artificially inflate GEP stack height credit without concomitantly regulating for the MAAQS in the SIP renders the Billings/Laurel SIP less stringent than federally required.

Our establishment of the NAAQS as the fluid modeling benchmark has no effect on the ability of a State to establish a lower State ambient air quality standard to provide a greater margin of protection to its citizens. Our establishment of the NAAQS as the benchmark for fluid modeling, may have the effect, in certain instances, of restricting the degree to which dispersion using stack height can be counted for purposes of showing compliance with the *national* ambient air quality standards. Thus, the issue here is the extent to which dispersion may be relied on to show compliance with national standards, not whether Montana can impose more stringent requirements on its sources to meet a more stringent Montana standard. There is nothing in section 116 that says Montana or any other state is entitled to rely on greater dispersion to meet the NAAQS, and Montana's use of the MAAQS in this case to justify greater use of dispersion renders the SIP less stringent, not more. Montana's use of the MAAQS would allow MSCC to have a higher SIP limit, not a lower one. If the NAAQS were used, MSCC would have a lower stack height credit. Section 116 does not support the commenters' argument.

(h) *Comment:* One commenter (State letter, document # IV.A–23, p. 17) stated that EPA's criticism of the State's use of the MAAQS in the fluid modeling demonstration arises from EPA's lack of understanding of the MAAQS. The commenter asserted that the State has responsibility to protect both the NAAQS and the MAAQS; the NAAQS are enforced through an implementation plan, but the MAAQS are enforced directly, based on ambient monitoring. According to the commenter, if EPA's argument were followed to its logical conclusion, Montana would be forced to either abandon its MAAQS or impose two GEP determinations upon a source seeking above formula credit, separately based on the NAAQS and the MAAQS.

Response: The comment makes clear that stack height credit has no relevance to the MAAQS whatsoever. As the comment notes, the MAAQS are enforced directly, based on ambient monitoring. Of necessity, the full

²⁸ Elsewhere we and some of the commenters also refer to EPA's or the Region's meteorologist. Our modeler and meteorologist are the same person.

dispersive effect of a stack's height is taken into account with ambient monitoring. A monitor does not adjust the concentrations it reads based on too much stack height credit. Stack height credit only has relevance to developing limits in an implementation plan, and, as Montana admits in its comment, no implementation plan is developed for the MAAQS. Thus, our position would not force Montana to abandon the MAAQS and would not force Montana to perform two GEP determinations.

If Montana were to develop a state-only plan for the MAAQS, it is conceivable that Montana would have to perform two GEP determinations—one for the federally enforceable SIP for the NAAQS, one for the state-only plan for the MAAQS. We do not believe this would impose a significant hardship on the State or sources. Many states have state-only requirements for sources that they choose not to include in the federally enforceable SIP. Certainly, our position would not force Montana to abandon the MAAQS.

(i) *Comment:* One commenter (MSCC letter, document # IV.A–20, comment # 1.D) believed that EPA's objections regarding the use of the MAAQS in the fluid modeling demonstration and with respect to other aspects of the State's GEP stack height determination are too late.

Response: We have both the legal authority and obligation to determine whether the SIP meets the requirements of the Act and our regulations. At the time we propose action on a SIP submission, it is clearly not "too late" to raise objections regarding the SIP, even if we did not raise these objections at an earlier date. We are not "estopped" from taking action consistent with the Act and regulations.

4. Issues Related to the Support Structure

We received many comments, primarily from MSCC and its consultants, related to MSCC's stack support structure. There are two fundamental issues related to the support structure—first, whether we must approve GEP stack height credit for MSCC's SRU 100-meter stack based on the application of the formula to the stack support structure, either by accepting the formula calculation outright or by accepting a within-formula fluid modeling demonstration to verify formula height based on the support structure, and second, whether we are justified in disapproving MSCC's SRU 100-meter stack emission limits because MSCC modeled downwash from the stack support structure in conducting its wind tunnel study.

We think the first issue is irrelevant to our action. This is because the State rejected the application of the formula to the stack support structure. Thus, the State did not submit a SIP limit for MSCC based on a formula height determination, or a within-formula fluid modeling demonstration. Our obligation under the Act is to evaluate the SIP the State has submitted to us, not GEP theories an individual source has proposed but the State has rejected. Nonetheless, we respond to the comments on the first issue and explain why we believe the stack support structure may not be used to calculate formula height.

The second issue is relevant to our action because the fluid modeling demonstration that the State ultimately approved modeled downwash from the stack support structure. We respond to comments on this issue and explain why we think it was inappropriate to model such downwash under section 123 of the Act and our regulations. This error forms one basis for our disapproval of MSCC's limits.

(a) *Comment:* Several commenters (MSCC letter, document # IV.A–19, comment #'s 27, 30, 38; MSCC letter, document # IV.A–20, comment #'s 1.D, 1.E, 2.B, 2.C, and 2.U; Goetz letter, document # IV.A–18, exhibit D, pp. 33–34; CPP letter, document # IV.A–18, exhibit A, p. 5 and Attachment I) stated that EPA has wrongly concluded that the MSCC stack support structure should not be treated as a nearby structure for purposes of determining formula height. The commenters claimed that nothing in the stack height regulations supports the State's and EPA's argument that the support structure is not within the definition of "nearby," and that in reaching such conclusion, EPA ignored the plain language of the regulations. The commenters also asserted that the stack height regulations do not exclude any types of structures for determining formula height. One of the commenters (MSCC) noted that EPA eliminated nearby terrain from consideration and could have done the same for specific structures if it had wanted to. The commenter contended that even if the support structure were a stack, it would still be a structure, and should still be considered in formula determinations and fluid modeling demonstrations. The commenter claimed that the rule does not draw a distinction between structures that are stacks and other structures, and that if it had drawn such a distinction, it would reasonably have been challenged as contrary to the explicit language in section 123, which requires that nearby structures, terrain

and the source itself be considered in determining GEP. The commenter claimed that EPA cannot now put forward an interpretation that is not embodied in the rule. One of the commenters (MSCC) argued that section 123 contemplates consideration of downwash caused by the source itself. The commenter claimed it would be absurd to conclude that this would exclude the stack at a source but no other structures.

Response: We do not dispute that the support structure is within the distance that 40 CFR 51.100(jj) defines as "nearby" with respect to separate structures. However, we cannot allow the support structure to be used to calculate formula height because it is not separate from the stack; it is part of the stack. Sources are not free under section 123 to justify greater stack height credit by relying on the height of an existing stack or building a taller stack. Congress recognized the distinction between a source and its stack when it provided in section 123 of the Act that formula height could not exceed two and a half times the height of the source. It is self-evident that Congress did not mean to include the stack as part of the source for applying the "2.5H" formula. The D.C. Circuit acknowledged this in *Sierra Club v. EPA*:

While the statute generally left the determination of GEP stack height to regulations to be promulgated by the EPA Administrator, it set an upper limit of two-and-one-half times the height of the stack's source."

719 F.2d 436, 442 (D.C. Cir. 1983).

If the commenters' logic were applied, a source could continually justify a higher and higher stack height credit, up to the moon if it wished, by simply building a taller stack. This result would completely undercut section 123 of the Act, which uses the formula to establish a presumptive limit on stack height credit.

In addition, the very use of the term "nearby" in the regulations indicates a structure separate from the stack. Furthermore, the stack height regulations do not define the term "structure" and there is no statement in the regulations that says any and every manmade feature must be considered in calculating formula height. For example, we believe it would be inappropriate to calculate formula height based on a flagpole, even though it might be separate from the stack and some would argue it is a structure. As we discuss more fully below, we specifically indicated in the Technical Support Document for the stack height

regulations that stacks and radio or TV transmission towers should not be considered in GEP stack height determinations. (See "Guideline for Determination of Good Engineering Practice Stack Height (Technical Support Document For the Stack Height Regulations)" (document # II.A-12) at p. 7). Absent a specific regulatory definition of the term "structure," we believe we have the discretion and the obligation to interpret our regulations so as to effectuate the language of the statute and the intent of Congress. We believe our interpretation is entitled to deference, and believe the commenters' interpretation would do severe damage to the statutory framework.

(b) *Comment:* One commenter (CPP letter, document # IV.A-18, exhibit A, Attachment I) asserted that the State and EPA incorrectly concluded that the stack support structure could not be used to calculate GEP formula height. The commenter stated that mathematically, there is no reason the stack support structure cannot be used for calculating GEP formula height, since it has both height and width, and a formula can be calculated for any structure with height and width.

Response: We are well aware that structures, like the MSCC stack, have height and width dimensions and that the variables in the GEP formula are height and width. We understand that it is possible to plug the height and width of the stack support structure into the GEP formula to reach a mathematical result. But, based on our *legal* interpretation of section 123 of the Act and our regulations, we do not believe this mathematical result is supportable; as explained in response to the previous comment, stack dimensions may not be used to calculate GEP formula height. The support structure is merely part of the MSCC stack.

(c) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment #'s 29, 30; MSCC letter, document # IV.A-20, comment # 2.E) stated that the stack support structure is part of the source, not the stack. The commenter asserted that EPA's suggestion that the structure is a stack or part of a stack is both incorrect and spurious. The commenter also asserted that by definition under 40 CFR 51.100, the support structure is not a stack, "which is a vent or conduit for emissions." The commenter claimed that the support structure simply supports several items of equipment that are themselves, like the structure, part of the source. Another commenter (Goetz letter, document # IV.A-18, exhibit D, p. 35) also claimed that the definition of stack does not support the argument of EPA

and the State that the cylindrical support structure is a stack itself.

Response: We disagree with the commenter's characterization of the support structure; we believe it must be considered part of the stack. As one commenter notes, the State and EPA are in agreement on this point. We believe that the agencies' view that the support structure is part of the stack is well-supported by evidence in the record, in particular, MSCC's own photographs of the stack (document # IV.A-17, MSCC Exhibit 119). These photographs show that the support structure and flue are nearly the same diameter and rise together for most of the height of the stack. In fact, they rise together for some 310 feet—more than a football field—before the flue emerges for a final 18 feet. See June 27, 1994 EPA letter, document # II.F-15; Goetz letter, document # IV.A-18, exhibit D, pp. 33–34. Therefore, the support structure cannot be considered a nearby structure for formula purposes or fluid modeling purposes. By analogy, a power plant with a stack consisting of an inner stack lining constructed of brick and an outer stack chimney constructed of concrete would not be allowed to calculate formula stack height based on the outer chimney, nor would the power plant be allowed to model downwash from the outer chimney in a fluid modeling demonstration. There is no reason MSCC's outer metal support structure should be treated any differently than the outer concrete chimney at a power plant. Both structures are part of the stack, even though both may support other equipment.

For the purposes of accuracy, we'd like to point out that 40 CFR 51.100 does not define stack as "a vent or conduit for emissions." Instead 40 CFR 51.100(ff) defines stack as "any point in a source designed to emit solids, liquids, or gases into the air, including a pipe or duct but not including flares." We believe this definition encompasses the entire MSCC stack structure, which includes the support structure.

The commenter's assertion that "the structure simply supports several items of equipment that are themselves, like the structure, part of the source," seems a bit misleading. The commenter fails to mention that MSCC itself calls the structure the "support structure" or the "stack support", and that the main structure the support structure supports is the flue. See, e.g., "Rebuttal Testimony of Larry Zink, Vice President of Montana Sulphur & Chemical Company," document # IV.A-17, MSCC Exhibit 127, at p. 24.

(d) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment #

38; MSCC letter, document # IV.A-20, p. 5, footnote 6) objected to the fact that EPA rejects the use of the support structure as a basis for calculating formula height on the basis that this would allow the stack to justify itself. The commenter stated that this concept or phrase is not found in the rules, statute, or legislative history. The commenter suggested that EPA's "speculations" regarding a stack justifying itself appear irrelevant to the concept of GEP and the goals of the CAA as a whole and section 123 in particular. According to the commenter, the use in the preamble of the phrase "stack justifying itself" only relates to the emission rate to be used in fluid modeling demonstrations, and even there, EPA's arguments are specious. The commenter also suggested that EPA's response to its concern about circularity in the stack height regulations was an improper adoption at the last minute of the NSPS emission rate, and that EPA could have avoided the possibility of a new stack justifying itself by adopting an emission rate based on existing stack height or the de minimis stack height.

In asserting that the stack is part of the source, not separate from the source, the commenter included various statements regarding Congress' intent and suggested that EPA included many terms and requirements in its stack height regulation that are not included in the statute.

Response: Much of this comment appears to be saying that EPA went beyond the statute when it promulgated the 1985 stack height regulations and made questionable decisions. We believe such comments are not timely and are not directly relevant to this action. As we have explained elsewhere, the validity of the stack height regulations may not be challenged in this action.

As to the remainder of the comment, we agree that neither section 123 of the Act nor the stack height regulations state, "a stack may not be used to justify itself in formula calculations," but the validity of our position on this matter is evident from the language of section 123 itself and the language and structure of our regulations. As we have explained in response to a prior comment, section 123 treats the stack as distinct from the source for purposes of calculating GEP height. Under section 123, GEP height may not exceed two and a half times the height of the source. For obvious reasons, Congress did not say GEP stack height may not exceed two and half times the height of the stack, because this would render the formula meaningless. Yet, this is essentially

what the commenter is advocating. Also, the very use of the term “nearby” in the regulations indicates a structure separate from the stack. In this instance, we believe the regulations must be interpreted in a way to effectuate the overarching purpose of section 123, which is to restrict the unnecessary use of dispersion through tall stacks in lieu of emission controls; we believe our interpretation is reasonable and entitled to deference.

Contrary to the commenter’s assertion, we are not “speculating” about a stack justifying itself. MSCC is asserting in this action that part of the stack should be plugged into the formula or should be modeled in the fluid modeling demonstration.

Also, we are not relying on preamble language related to a stack justifying itself or circularity to reach our conclusion; we are relying on section 123 itself and the language and structure of the regulations. The circularity we are concerned about here is not related to emission rates used in a fluid modeling demonstration; we are concerned with the circularity that arises from MSCC’s attempt to justify GEP stack height credit for a new 100-meter stack based on a component of that very stack.

(e) *Comment:* One commenter (Goetz letter, document # IV.A–18, exhibit D, pp. 36–37) stated that it is disingenuous for EPA to argue that MSCC’s logic is circular since the CAA and its implementing regulations are circular and the *NRDC v. Thomas* court approved of some circularity in the stack height regulations.

Response: We do not believe the court’s holding on the differing requirements for within-formula and above-formula stack height demonstrations is particularly relevant to this issue. If it is relevant, then, for the reasons we have already given, using the support structure to calculate formula height is most certainly an impermissible form of circularity.

(f) *Comment:* One commenter (Goetz letter, document # IV.A–18, exhibit D, pp. 36–40) stated that the preamble to the 1981 stack height regulations dispels EPA’s “intent” argument (that MSCC’s use of the stack support structure to calculate formula height would violate Congress’ intent in passing section 123 of the Act), because it indicated a lack of concern about sources manipulating structure size or placement solely for the purpose of increasing their stack height credits, and retained the definition of “nearby.” In addition, the commenter claimed that in indicating Congress intended to favor emission reductions over tall stacks, EPA mischaracterizes Congress’ intent;

Congress endorsed the historic practice of using stacks to protect health from downwash-induced pollution. Another commenter (MSCC letter, document # IV.A–20, comment # 2.U; MSCC letter, document # IV.A–19, comment # 92) stated that EPA’s position regarding the support structure is illogical because of the numerous other scenarios that could occur whereby a source could increase formula height through its own construction or have it increased through others’ construction of nearby sources. The commenter pointed out that construction of a new source and its stack could occur simultaneously and that this would not disqualify the source from being used to determine formula height. Thus, in the commenter’s view, EPA’s complaint that MSCC’s new stack was not necessary as a result of some preexisting structure has no merit.

Response: We agree that in the 1981 preamble and relevant EPA guidance we have taken the position that formula height may be recalculated based on the siting of new nearby structures. We do not believe the preamble or guidance language addresses or contemplates the situation involved here. This situation is distinct because the support structure is merely a component of the stack structure.

We agree that some types of manipulation could occur, involving location of structures that could impact formula calculations. Normally we would not look behind the motivation for locating structures. As we explained in the 1981 preamble language cited by one of the commenters (Goetz at pp. 37–38; 46 FR 49819, October 7, 1981), we believed at that time that sources would not normally manipulate source construction parameters because it would be prohibitively costly to do so. We also agree that the simultaneous construction of a source and its stack would not invalidate a formula height calculation for the stack based on the source dimensions. However, as we noted in the same 1981 preamble language cited by the commenter, new source construction would normally be subject to stringent technology-based limits under NSPS or new source review permitting, and thus, a source owner would have little motivation to manipulate structure sizes and locations. The same logic does not apply to MSCC’s stack; MSCC was not building a new source with its stack, MSCC was merely building a new stack.

We are not saying that MSCC manipulated the design of the stack with the goal of increasing stack height credit; we are not familiar with the specific design considerations that went into designing and building the stack.

However, because of the circumstances, this really is not relevant. What is relevant is that there was no existing or new nearby structure *distinct* from the stack at the time MSCC constructed the stack that justified increasing the formula height of MSCC’s stack. We believe we have a valid statutory and regulatory basis to distinguish between structures that are distinct from a stack and those that are part of the stack; otherwise, section 123 of the Act and our regulations would be rendered meaningless. As we have described in response to other comments, our position is not just based on our interpretation of Congress’ intent, but on the language and structure of section 123 and our regulations.

In any event, we do not believe we have mischaracterized Congress’ intent. Congress intended to strike a balance between the use of stacks to disperse emissions and the use of control technology to limit emissions. The use of the support structure to calculate formula height would clearly disrupt the balance Congress was trying to achieve because any source could justify greater stack height credit by merely building a new stack.

(g) *Comment:* One commenter (MSCC letter, document # IV.A–19, comment # 37) stated that EPA’s arguments regarding MSCC’s stack appear to suggest that MSCC built or designed the structure to create downwash. The commenter asserted that MSCC did not build or design the structure to create downwash or circumvent the stack height regulations and described many reasons why MSCC built the stack in the manner and at the time it did.

Response: As a preliminary matter, we do not believe this comment goes to the validity of our action. However, we offer the following response. In our proposal, we did not intend to suggest that MSCC built or designed the stack to create downwash. As noted above, we are not familiar with the specific design considerations that went into designing and building the stack. However, we are concerned that allowing one source to model downwash from a stack support structure might encourage other sources to design support structures that increase downwash. Most importantly, we do not accept the proposition that the stack support structure is a nearby structure under the Act and our regulations.

(h) *Comment:* One commenter (MSCC letter, document # IV.A–20, comment # 2.V) stated that the notion that the support structure is part of the stack itself is not a meaningful distinction. According to the commenter, there is nothing in the rule that would allow a

reader to determine at what point structures become part of the stack itself as opposed to not part of the stack. The commenter claimed that if this position were valid, the rule would be void for lack of clarity as well as for lack of notice. The commenter asserted that these merely functional issues are not relevant to determining downwash or excessive concentrations; if a structure exists and it is nearby its contribution to downwash is as real as any other structure regardless of function. The commenter argued that the only purpose of this interpretation is to deny MSCC credit above 65 meters, not serve the Act.

Response: As we explain in response to prior comments, we believe it is necessary to distinguish between the stack and the source in order to effectuate section 123 of the Act and our stack height regulations. Otherwise, there is no meaningful limit on GEP stack height credit. We do not believe it is particularly difficult in most cases to distinguish the stack from the source. In MSCC's case, we have already indicated why we believe it is evident that the support structure and the flue form an integrated stack structure. We note that it is necessary to determine the location and extent of the stack for purposes of determining whether a structure is nearby under 40 CFR 51.100(jj), and under that section we would be unwilling to accept the proposition that there is no distinction between the source and the stack.

We do not believe the stack height regulations are void for lack of clarity or notice. We do not believe any reasonable person reading the stack height regulations would have understood them to allow a source to increase formula height merely by building a new stack. In any event, we do not believe the clarity of the stack height regulations or validity of the notice for those regulations may be challenged in this action.

The fact that the stack may create downwash is not a reason to conclude that the stack dimensions should be used to calculate formula height. We believe it is reasonably clear from the regulations that nearby structures means structures other than the stack.

We believe very strongly that our interpretations serve the purposes of the Act. We are not going to this effort merely to deny MSCC stack height credit greater than 65 meters.

(i) *Comment:* Several commenters (MSCC letter, document # IV.A-19, comment #'s 27, 38; MSCC letter, document # IV.A-20, comment # 2.I; Goetz letter, document # IV.A-18, exhibit D, p. 34-35; CPP letter,

document # IV.A-18, exhibit A, p. 5 and Attachment I) contended their arguments, that the support structure may be used to justify GEP stack height credit through application of the formula or fluid modeling, are supported by EPA's Guideline for Determination of Good Engineering Practice Stack Height (Technical Support Document for the Stack Height Regulations). The commenters claimed that EPA's guidance indicates that tall thin structures may be used to calculate formula height and EPA's approvals here and elsewhere have involved calculating formula height from structures that are taller than they are wide.

Response: Contrary to the commenters' assertion, our "Guideline for Determination of Good Engineering Practice Stack Height (Technical Support Document For the Stack Height Regulations)" (document # II.A-12) does not support the commenters' position. The Guideline specifically states that "structures such as stacks and radio or TV transmission towers should not be considered in GEP stack height determinations." (See Guideline at p. 7.) Later references to oddly shaped structures and the need to use fluid modeling demonstrations do not include stacks or radio and transmission towers. Thus, it is not just that the support structure is part of the stack; it is also the fact that it is very tall and thin that precludes its use in determining formula height. Although commenters claim that the rule does not exclude any nearby structures from consideration in determining formula height, it is clear from the technical support document for the stack height regulations that we intended to exclude some structures.

We agree that, as a rule, formula height may be calculated based on structures that are taller than they are wide. (However, as already indicated, our interpretation is that this does not extend to structures like stacks and radio or TV transmission towers.) We also agree that formula height may be calculated based on enclosed structures within a lattice. This does not change our opinion that the formula may not be applied to the MSCC stack support structure.

(j) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, p. 35) stated that *NRDC v. Thomas*, 838 F.2d 1224, 1239 (D.C. Cir. 1988), supported his contention that the support structure is a nearby structure and is subject to modeling under EPA's stack height regulations.

Response: The commenter cites language from the opinion that merely

notes that the stack height regulations provide for fluid modeling demonstrations for sources with porous structures or buildings whose shapes are aerodynamically smoother than the simple structures on which the formulae were based. The language cited, and the provisions of 40 CFR 51.100(kk)(3), are not relevant to this issue. As we have already discussed, the support structure may not be used to calculate formula height for two reasons—the support structure is part of the stack to which the formula may not be applied, and the support structure is a very tall thin structure to which the formula may not be applied. Thus, it does not matter that the support structure is a cylinder; the support structure does not fit within the umbrella of 40 CFR 51.100(kk)(3).

(k) *Comment:* Several commenters (MSCC letter, document # IV.A-19, comment # 38; MSCC letter, document # IV.A-20, comment #'s 2.B, 2.C, 2.R, 2.U; Goetz letter, document # IV.A-18, exhibit D, p. 36; CPP letter, document # IV.A-18, exhibit A, p. 5 and Attachment I) stated that EPA's remedy to address structures that might not lead to accurate formula height determinations, was to allow for or require fluid modeling demonstrations. One commenter (MSCC) stated that even if a source built a stack with the intent of creating excessive formula height, the source would have no assurance that a fluid modeling demonstration would justify the height as GEP. The same commenter stated that, having established fluid modeling as the test where the formula is questioned, EPA cannot argue that the rules or the Act require it to disapprove formula height actually demonstrated by fluid modeling.

Response: We have already explained why the stack support structure may not be used to calculate the formula. The potential safeguard that an agency might insist on fluid modeling to challenge the formula height credit does not render the initial proposition acceptable. Neither Congress nor EPA intended a stack or part of the stack to be eligible for consideration in determining formula height. In addition, we note that a fluid modeling demonstration to justify formula height is not a cure for applying the formula to a stack or a structure that is not nearby. This is because the criteria for fluid modeling for within-formula stack height credit are not as stringent as the criteria for above-formula stacks. See 40 CFR 51.100(kk)(2) and (kk)(3) versus subsection (kk)(1). Put another way, the commenters' approach would turn every fluid modeling demonstration into a within-formula demonstration, which is

clearly not what we intended. We also note that these comments ignore the statement in the Technical Support Document for our stack height regulations that structures like stacks and radio or TV transmission towers should not be considered in GEP stack height determinations.

(l) *Comment:* One commenter (MSCC letter, document # IV.A-20, comment # 2.R) stated that because EPA has argued the Act does not require it to impose control-first, EPA should conclude that it need not disapprove the use of tall thin structures or even stacks in calculating formula heights because the rules and the Act do not require it do so.

Response: We do not understand the logic of this comment. We believe our interpretation of the Act and the regulations is reasonable and best effectuates the purpose behind section 123. Among other things, we do not believe section 123 allows formula calculations to be based on the stack; as explained above, section 123 clearly differentiates between the source and the source's stack. We believe the commenter's interpretation is unreasonable and would undermine section 123 and our regulations. We do not believe we have the discretion to interpret the Act and our regulations in the manner that the commenter suggests; to the extent we have the discretion to interpret the Act differently—and to revise our stack heights regulations accordingly—we have not done so to date.

(m) *Comment:* Several commenters (MSCC letter, document # IV.A-19, comment #'s 27, 29, and 90; MSCC letter, document # IV.A-20, comment #'s 1.E, 2.H; Goetz letter, document # IV.A-18, exhibit D, pp. 12, 33-34, 36; CPP letter, document # IV.A-18, exhibit A, p. 5) stated that EPA changed its position on the validity of considering the support structure in determining formula height and the need to evaluate the effect of the support structure for purposes of fluid modeling. One commenter (MSCC) claims that EPA misguided the State and MSCC in the design of the protocol for the modeling and that the State and MSCC should not suffer for EPA's change of heart which has no technically sound basis. This commenter stated that EPA admits that it did not inform DEQ that the support structure should not be removed in model runs measuring downwash before the modeling was conducted. The commenter claimed EPA said it was acceptable to remove the support structure while the protocol was being written in the fall of 1995. One commenter (Goetz) stated that EPA's

initial response to MSCC's formula height calculation was reasonable. According to the commenter, EPA called for verification of the formula height calculation based on the stack support structure, and EPA has discretion to require such a verification. This commenter also claimed that, in a letter to the State, EPA indicated that the support structure could be considered a nearby structure.

Response: The commenters misrepresent EPA's position regarding the stack support structure. In our June 27, 1994 letter from Marshall Payne and Douglas Skie to Jeffrey Chaffee (document # II.F-15), we unequivocally stated that the formula could not be applied to the MSCC stack. Although this letter appeared to indicate that fluid modeling of the support structure could be used to determine GEP credit, at least three later letters to the State superseded the June 27, 1994 letter on this point. See our TSD at p. 56; letters dated January 31, 1996, March 15, 1996, and July 18, 1996, document #'s II.F-19, II.F-20, and II.C-5.)

We agree that we did not inform the State in the fall of 1995 that the support structure could not be modeled. However, MSCC and DEQ had ample time to re-run the modeling based on our position and chose not to do so.

We do not agree that our initial response to MSCC's formula height calculation (contained in our June 27, 1994 letter, document # II.F-15) was reasonable. It is contrary to section 123 of the Act and our stack height regulations to consider part of the stack in calculating formula height and in performing a wind tunnel study.

(n) *Comment:* One commenter (CPP letter, document # IV.A-18, exhibit A, p. 5) asserted that EPA has questioned the use of the formula for the support structure and required that wind tunnel modeling be conducted to validate the use of the formula above 65 meters in this case. Therefore, according to the commenter, wind tunnel tests must be conducted with and without the support structure present. The commenter referred to his chronology of events to support his assertion that EPA required wind tunnel modeling to validate formula height. The commenter cited EPA guidance and regulations as support for his assertion.

Response: The commenter references a July 27, 1994 letter from Douglas Skie to Jeffrey Chaffee, but we believe the commenter meant the June 27, 1994 letter from Marshall Payne and Douglas Skie to Jeffrey Chaffee (document # II.F-15). The commenter indicates that this letter said it was acceptable to calculate GEP formula stack height based on

application of the formula to the stack support structure. This is inaccurate; see our response to the previous comment. Also, as noted in response to the previous comment, although the June 27, 1994 letter appeared to indicate that fluid modeling of the support structure could be used to determine GEP credit, later letters to the State said otherwise. Despite our admonitions on this matter, the commenter and MSCC have continued to assert that their within-formula wind tunnel demonstrations are valid. The commenter also does not mention the fact that the State did not approve these within-formula stack height demonstrations. As we have indicated, we believe this fact renders these demonstrations irrelevant.

The EPA document references cited by the commenter do not support CPP's approach. The commenter's entire argument rests on the premise that formula height may be calculated based on the stack support structure, and that the commenter merely performed wind tunnel tests to validate formula height. Elsewhere in this document we have described in detail why the stack support structure may not be used to calculate formula height. If, as we interpret section 123 of the Act and our stack height regulations, the stack support structure may not be relied on to calculate formula height of 98.15 meters, then the commenter has no valid basis to "verify" a formula height of 98.15 meters. As we have stated, 40 CFR 51.100(kk)(3) is not applicable to MSCC's stack height determination.

(o) *Comment:* One commenter (CPP letter, document # IV.A-18, exhibit A, Attachment I) stated that EPA's objection to the modeling of the effect of the stack support structure is contrary to all prior practice. The commenter indicated that CPP has conducted well over 20 GEP stack height evaluations using fluid modeling, most of which have been approved by EPA, and in every case, CPP has considered the effect of all nearby structures on downwash. According to the commenter, "requiring the exclusion of any particular real structure that the source believes may be contributing to downwash is improper since it may affect the final result and lead to an improperly low GEP credit." The commenter suggested that it is particularly improper when guidance and the agency indicated downwash from the support structure should be modeled. The commenter also stated that no purpose would be served by re-running the test with the structure "in" in both cases because agency guidance indicates the effects of such a tall thin structure are very small.

Response: We agree with the commenter that downwash from all nearby structures should be modeled in a fluid modeling demonstration. However, as discussed elsewhere, we do not think a component of the stack—in this case, the stack support structure—may be considered a nearby structure under the Act or our regulations. The commenter has not suggested that his past practice has included conducting fluid model runs with the stack “in” and “out”—i.e., that he has modeled downwash created by the stack itself. Nor has he cited to any particular experience that involved modeling a stack support structure. We disagree with the commenter that the criterion for determining whether a particular structure should be excluded from fluid modeling is whether the source believes the structure may be contributing to downwash. *For example*, it would be inappropriate to model downwash from a structure that is more than half a mile from the stack. See 40 CFR 51.100(j)(2). As we have noted with respect to other comments, this commenter on the one hand seems to be suggesting that not considering downwash from the support structure might lead to improperly low GEP credit, but on the other hand that any downwash from the support structure is very, very small and that EPA is being unreasonable in saying the wind tunnel tests should have been re-run. Any other issues raised in this comment are addressed in our responses to other comments.

(p) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, p. 12) stated that MSCC's contractor properly ran EPA's own Building Profile Input Program, and carefully followed the statute's and rule's stack height formula, to determine a formula height of 98.15 meters for MSCC's stack. According to the commenter, this formula height was based on the dimensions of the stack support structure.

Response: A computer program is merely a computer program; someone using it could input any structure dimensions they want and the program would spit out a result. *For example*, one could input the dimensions of a structure more than 5L from the stack, which is not permitted by our regulations. Use of a computer program does not guarantee a valid formula height calculation or compliance with the statute and the regulations.

(q) *Comment:* One commenter (MSCC letter, document # IV.A-20, comment # 2.J) stated that EPA's own computer program used for estimating downwash parameters for inclusion in dispersion models excludes no large structure

based on its height to width ratio or shape. The commenter asserted that two stacks adjacent to each other may be used as downwash influences on each other.

Response: We have interpreted the statute and regulations that apply to GEP stack height determinations, and believe they prohibit the use of the stack or part of the stack to calculate GEP stack height credit, either through application of the formula or through fluid modeling. Our rules and guidance for dispersion modeling may be different, but we do not think this has relevance to our interpretation of section 123 of the Act and the stack height regulations. Presumably, dispersion modeling would not exclude a structure more distant than a half mile either, as long as the structure is within the modeling domain, but this does not mean that such structure should be considered nearby for purposes of determining GEP stack height credit.

(r) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, pp. 20–21, 28) quoted from a phone summary prepared by Dr. Petersen, MSCC's consultant for the fluid modeling study, in which Dr. Petersen reported on a conversation he had with John Coefield, the State's modeler, on March 28, 1996. According to Dr. Petersen, Mr. Coefield indicated that although EPA had raised concerns regarding the treatment of the stack support structure in the fluid modeling, EPA did not feel this was a major concern because they felt the structure has a minor effect anyhow. In addition, the commenter asserted that EPA's objection to use of the support structure is trivial, and that not one expert, including EPA's meteorologist, believed that the support structure in or out will make any difference. Therefore, the commenter argued that EPA should not use this as a justification to disapprove the SIP. The commenter quoted from another phone summary prepared by MSCC's consultant as support for this notion. Another commenter (MSCC letter, document # IV.A-19, comment # 90) characterized our concern as a minor technical objection.

Response: Our official communications with the State on this subject make clear that the treatment of the stack support structure was not a minor concern. We took the trouble to mention our concern in three different letters, something we would not have done if this was merely a minor concern. (See letters dated January 31, 1996, March 15, 1996, and July 18, 1996, document #'s II.F-19, II.F-20, and II.C-5.) Even Dr. Petersen's notes reflect our meteorologist's belief that additional

testing would be necessary. (See document # IV.A-18, MSCC Exhibit 144.)

Whether the effect of the support structure on downwash is trivial or not can be shown through a properly conducted fluid modeling demonstration. We believe it is reasonable to insist that the demonstration be properly performed, and this means not modeling downwash from the support structure that is part of the stack.

We note that one of the commenters (Goetz, document # IV.A-18, exhibit D, pp. 28, 34–35) argues that the effect of the support structure is trivial in the fluid model demonstration, but should be considered in calculating formula height. The commenter asserts that our Guideline recognizes that even a lattice structure may cause downwash and suggests that the support structure is more likely to be a source of downwash because it is an “enclosed” structure. It appears that the commenter's positions regarding potential downwash from the support structure are inconsistent—the commenter argues that the downwash impact of the support structure is trivial when commenting on our objection to the use of the support structure in the wind tunnel study, but then argues the same downwash impact is important when arguing that the support structure should be used to calculate formula height. We do not know the extent of the downwash impact of the support structure, but our position is consistent—the support structure should not be used to calculate formula height, and its downwash impacts should not be considered in a wind tunnel study. The basis for our position is the same in both cases—the stack cannot be used to justify itself.

We also note that MSCC has been insistent that it has a right to model downwash from the support structure, and Larry Zink of MSCC offered the following testimony in the State hearing:

Yes, we did contract to have the structure built. It's there. It's real. It causes downwash. and

When the YELP buildings more fully line up with MSCC's stack and the wind, this effect becomes larger as it synergizes with the effects of the support structure, etc.

See “Rebuttal Testimony of Larry Zink, Vice President of Montana Sulphur & Chemical Company,” document # IV.A-17, MSCC Exhibit 127, at pp. 16, 24. In addition, Larry Zink of MSCC wrote the following in an August 10, 1994 letter to Jeffrey Chaffee of the State:

"Common sense" also certainly does not support the idea that a thin structure, even an "aerodynamic" one, does not generate substantial and lasting "downwash," "eddies" or "wakes." To the contrary, we know that long and "thin" structures, such as slow-moving aircraft wings, can generate sufficient downwash turbulence and vortices to slam a distant * * *, following, powered aircraft to the ground from hundreds of meters in the air. "Common sense" tells us, therefore, that it is probable that a far larger, less aerodynamic, ground-mounted structure will also produce significant and lasting downwash, wakes, vortices, and eddies capable of entraining drifting gases and bringing them prematurely to ground.

See cited letter, at pp. 12, 13, part of document # II.B-10. It is difficult to understand how MSCC and its consultants can now characterize our concern that MSCC improperly modeled downwash from the support structure as a minor technical objection or trivial. The only way to properly resolve this issue is to re-do fluid modeling including the support structure in all model runs—that is, not model downwash created by the stack support structure. Again, this is because the stack support structure is part of the stack.

(s) *Comment:* One commenter (State letter, document # IV.A-23, p. 11, footnote 10, p. 15, footnote 15) agreed with EPA that the stack support structure should not be considered a "nearby structure" for purposes of the fluid modeling demonstration. However, the commenter asserted that the impact of evaluating the support structure as a nearby structure is small. Specifically, the commenter stated, "the State's analysis indicated that the FMD (fluid modeling demonstration) results would not be significantly affected by MSCC's approach, and the State concluded that requiring MSCC to conduct another demonstration was not justified."

Response: It is significant that the commenter is the State, which is admitting that the fluid modeling demonstration was not conducted entirely properly. It appears that the State is advancing a de minimis theory of error, but despite its claims that the impact of the error is insignificant, the State provides no support for its assertion that the fluid modeling demonstration would not have changed if MSCC had properly treated the support structure in the fluid modeling demonstration.

(t) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 29) stated that either the support structure is a nearby structure, in which case it should be used to calculate formula height, or it is not, in which

case its inclusion or removal from the fluid model is obviously irrelevant.

Response: We have already explained our position that the support structure is not a nearby structure. The commenter's suggestion that if the support structure is not a nearby structure, it is irrelevant whether it is included or removed from the fluid model, defies logic. MSCC has attempted to use the support structure to justify greater GEP stack height credit, despite the fact that it is not a structure that may be used for this purpose.

(u) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 31) stated that EPA's treatment of the support structure as part of the stack somehow violates the provision that the Administrator cannot prohibit the construction or operation of a stack of any height by a source.

Response: MSCC remains free to keep its 100-meter stack or build a taller stack if it wishes. Nothing we are doing in this rulemaking restricts the actual stack height at MSCC.

5. Issues Related to Other Demonstrations

MSCC and its consultants performed various analyses and asserted various theories in an attempt to justify 100 meter, or near-100 meter, stack height credit for MSCC's SRU 100-meter stack. The State only approved one of MSCC's stack height demonstrations, for 97.5 meters of credit based on above-formula fluid modeling. We have already described our basis for concluding that the State-approved stack height credit of 97.5 meters is not valid under the Act and our regulations. Regarding MSCC's other bases for claiming 100 meter or near-100 meter stack height credit, we took the position that because the State had not adopted any of these other bases in determining stack height credit for the SRU 100-meter stack, these other bases were not before us as part of this SIP action, and were not relevant to our proposal. Some of these other bases rely on formula credit for the stack support structure, which we address in greater detail in the previous section.

We received numerous comments regarding our position regarding these other bases, mostly from MSCC and its consultants arguing that these other bases are valid and that we should consider them. Although we believe these comments are irrelevant to our action, we respond to them here. Nothing in the comments has caused us to change our position regarding our disapproval of MSCC's stack height credit.

(a) *Comment:* One commenter (MSCC letter, document # IV.A-19, #'s 17, 19,

38, 115; MSCC letter, document # IV.A-20, # 1.A) stated that EPA's proposed disapproval of stack height credit for MSCC violates the definition of GEP provided in EPA's own rules, which allegedly do not permit EPA to overrule a State's GEP determination unless the result would be a higher GEP height. The commenter asserted that EPA delegated to the states unilateral decisionmaking authority regarding GEP determinations, but also asserted that EPA may approve a fluid modeling based GEP determination if the state does not. In any event, in the commenter's view a state may not disapprove an EPA determination and EPA may not disapprove a state determination; the exception is in the event that one regulatory body approves a higher GEP stack height credit, in which case this higher credit would prevail. The commenter suggested that new formal federal rule making or new federal legislation would be needed to change this scheme.

Response: We do not read our regulations to provide carte blanche to states to make GEP determinations that are inconsistent with the requirements of Clean Air Act section 123 and our stack height regulations. We are not bound to accept the greatest of several GEP heights where that greatest value is not valid under our regulations. The commenter's position would lead to absurd results: a state could ignore our regulations in establishing stack height credit, and EPA and the public would have no recourse. We believe Congress empowered us to make sure SIP limits are set consistently with the Act's requirements. Section 110(k)(3) of the Act indicates we can approve the plan if it meets all of the applicable requirements of the Act and disapprove parts of the plan if it does not. Also, section 110(l) of the Act indicates we shall not approve a revision of a plan if the revision will interfere with any provisions of the Act. Also, there is nothing in the regulations that suggests our review is a one-way ratchet as the commenter suggests—that we may only disapprove a state's GEP stack height credit determination if doing so would result in a higher GEP stack height.

(b) *Comment:* One commenter (MSCC letter, document # IV.A-19, p. 2, and comment #s 28, 35, and 116; MSCC letter, document # IV.A-20, comment #s 1.F, 1.K, and 2) stated that, in addition to the fluid modeling approved by the State, MSCC also submitted fluid modeling demonstrations based on formula height and performed in accordance with our own rules and guidance. The commenter urged EPA to consider these demonstrations or

justifications that allegedly support GEP stack height above 65 meters for MSCC's main stack. The commenter said that these demonstrations confirm that GEP is greater than the height credited by the State. The commenter said that EPA's sole basis for ignoring these other demonstrations is that the State did not consider them. The commenter claimed that this is not true, that the State received these demonstrations and that they should be part of the record. The commenter seemed to acknowledge that the State did not base its SIP decisions on these alternative demonstrations, and claimed that the State misapplied the stack height rules in rejecting these alternative demonstrations. The commenter claimed that EPA is guilty of circumventing its own rules in not applying or accepting these alternative stack height demonstrations that the State rejected. The commenter asserted that EPA has the discretion to approve these alternative demonstrations. The commenter argued that if EPA does not have the authority to approve higher GEP based on alternative demonstrations, then EPA lacks the authority to overturn the State's approved determination. The commenter suggested that EPA is only interested in "unreasonably preventing one small source in Montana from obtaining the GEP credit" to which it is clearly entitled.

Response: We take the SIP as it is submitted to us. The State rejected MSCC's alternative demonstrations. See our TSD at p. 53. Therefore, we do not believe those alternative demonstrations are before us for consideration as part of the submitted SIP, and we do not believe the CAA requires us to consider alleged justifications for SIP limits that the State has not adopted or put forward. Also, we do not believe the presence or absence of authority to consider alternative demonstrations the State did not endorse has any bearing on our authority to disapprove emission limits for MSCC that rely on an improper GEP demonstration. We have clear authority to implement section 123 of the Act and our stack height regulations and to disapprove SIP submittals that do not meet the requirements of section 123 of the Act and our stack height regulations.

Even if it would be appropriate for us to substitute an alternative justification for one put forward by the State, we could not adopt the position taken by the commenter because that position is inconsistent with our regulations. We have no vendetta against MSCC as the commenter suggests. We would very much like to resolve this dispute regarding stack height credit, but are not

willing to do so in a way that is inconsistent with section 123 of the Act and our stack height regulations. We have a responsibility to properly apply the stack height regulations. We believe that the State properly concluded that the buildings MSCC asserted were nearby for purposes of determining formula height were in fact not within the distance defined as nearby by our regulations. Because MSCC could not rely on these buildings or the stack support structure to determine formula height, MSCC's only way to justify stack height credit greater than 65 meters was to perform above-formula fluid modeling pursuant to 40 CFR 51.100(kk)(1).

(c) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 87) stated that the State did not reject other GEP stack height theories asserted by MSCC, but instead rendered them moot by entering into a settlement with MSCC over GEP stack height credit based on a fluid modeling demonstration. According to the commenter, MSCC reserved all arguments regarding its other demonstrations, as well as regarding the prior determination of GEP being 100 meters. The commenter asserted that EPA must consider these other arguments and the prior determination, and must substitute its judgment for the State's if EPA finds any of the alternative theories acceptable.

Response: State staff rejected other GEP stack height theories asserted by MSCC, and the MBER did not adopt any of MSCC's other theories. Thus, the State did not forward other stack height determinations to us for consideration, and, as discussed above, we do not believe it is necessary or appropriate for us to consider or adopt an interpretation that MSCC did not persuade the State to submit to EPA. States submit SIPs for EPA approval, not sources. Our duty under the CAA is to consider the SIP the State has submitted, not an alternative SIP that one company or individual proposes, but that has no legitimacy under State law.

Assuming for the moment we have some duty to evaluate alternative demonstrations that the State has not adopted, we find MSCC's alternative demonstrations unconvincing. The bases for our findings are described herein and in the letters cited in our TSD, at page 53. These letters are contained in the docket for this action.

(d) *Comment:* One commenter (MSCC letter, document # IV.A-20, comment # 2.T) stated that EPA has inadequately explained the legal and technical basis for its refusal to consider or approve the alternative demonstrations, when they

clearly demonstrate that GEP is at least 97.5 meters.

Response: We believe our proposal and this notice adequately explain the basis for our refusal to consider or approve the alternative demonstrations. We note that the commenter and the attorney for MSCC make inconsistent arguments: on the one hand they argue that we may not interfere with the primacy of the State in establishing emission limits for the seven sources in the Billings/Laurel area and on the other hand argue that we should consider "alternative demonstrations" that the State did not approve or use to establish MSCC's emission limits. We are acting on the SIP the State submitted to us, since only the State has the authority to submit a SIP. In any event, we explain in detail why we would reject MSCC's alternative demonstrations if they were before us.

(e) *Comment:* Another commenter (CPP letter, document # IV.A-18, exhibit A, p. 7) asserted that EPA should approve at least one of the five demonstrations CPP performed on behalf of MSCC, and that a single demonstration is sufficient. This commenter appeared to believe it is important that all five methods showed similar results to the GEP stack height credit approved by the State.

Response: For the reasons already stated, we do not believe alternative demonstrations are before us for consideration. In any event, as explained in response to other comments, we do not believe the other demonstrations performed by CPP on MSCC's behalf are valid. We believe it is irrelevant that all five methods showed similar results to the GEP stack height credit approved by the State. CPP may have run the wind tunnel tests consistently; this does not mean the demonstrations are legally valid.

(f) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 40; MSCC letter, document # IV.A-20, comment # 2.K) stated that EPA should consider a fluid modeling demonstration to demonstrate the validity of formula height for MSCC. The commenter appeared to be arguing that EPA could either consider the BGI building and ExxonMobil tank farm to be nearby for purposes of calculating formula height, or could consider the support structure to be a nearby structure for purposes of calculating formula height. In either case, according to the commenter, MSCC has performed fluid modeling that has verified the validity of formula height. The commenter referred to EPA's definition of "nearby" for purposes of formula determinations as a "rule of thumb."

Similar comments are contained in CPP's comments (CPP letter, document # IV.A-18, exhibit A, Attachment I).

Response: MSCC believes it should be able to avail itself of the provisions of 40 CFR 51.100(kk)(2) for verifying formula stack height credit. Unlike 40 CFR 51.100(kk)(1), subsection (kk)(2) does not require that a source meet an NSPS or alternative limit, but instead allows the source to use the emission rate specified by the applicable SIP. In MSCC's case, the applicable SIP emission rate is higher and makes it easier to justify a higher stack height credit. In addition, MSCC would not be bound to meet an NSPS limit on an ongoing basis.

As a preliminary matter, we note that the State did not adopt this approach in determining GEP stack height for MSCC. Thus, as noted previously, we do not believe this basis is before us for consideration.

Furthermore, to qualify to use the provisions of subsection (kk)(2), MSCC must be seeking a within formula increase. It is not, and therefore, cannot avail itself of subsection (kk)(2). First, our definition of "nearby" is not a "rule of thumb." We are not free to consider sources "nearby" that fall outside the 5L distance defined as nearby by the regulations. Therefore, the BGI building and ExxonMobil tank farm dimensions cannot be plugged into the formula to determine formula height. Second, as already discussed at length, we do not consider the stack support structure to be a nearby structure. Thus, it cannot be plugged into the formula to determine formula height.

The further suggestion by CPP that, "by definition," the formula does not adequately represent the downwash created by the BGI structure, and therefore, it is appropriate to "verify" the formula with a wind tunnel test under subsection (kk)(3), represents a complete mis-reading of the stack height regulations. The stack height regulations make perfectly clear that formula height may only be calculated based on structures that are within a distance of 5L of the stack, where L is the lesser of the height or width of the structure. See 40 CFR 51.100(jj)(1). If a structure is not within 5L of the stack, it may not be used to calculate formula height of the stack, and there is no formula height derived from such structure that *can* be verified under subsection (kk)(3) or (kk)(2). It is irrelevant that a distance greater than 5L may be considered "nearby" for purposes of a fluid modeling demonstration under 40 CFR 51.100(jj)(2). This fact does not validate the use of a within-formula fluid modeling demonstration. Contrary to

the commenter's assertion, we are not interpreting the subsection (jj)(1) definition of "nearby" (for determining formula height) so as to override the subsection (jj)(2) definition of nearby (for fluid modeling). We are giving each independent effect as they are written. It is the commenter who is interpreting subsection (jj)(2) as trumping subsection (jj)(1), and in so doing, is ignoring the fact that our regulations require a different type of fluid modeling study to justify above-formula stack height credit. Our "simplistic interpretation," which the commenter derides, is the law on this point.

(g) *Comment:* One commenter (CPP letter, document # IV.A-18, exhibit A, Attachment I), relying on language from the preamble to the stack height regulations to the effect that the formula may not adequately represent all structures, argued that this necessarily means 40 CFR 51.100(kk)(3) should be used to define the parameters of a fluid modeling study whenever there may be a question about the application of the formula in a given situation. The commenter asserted that the stack height regulations must be interpreted consistent with their intent, and part of this intent is to ensure that a "stack is built and credited tall enough to avoid this adverse downwash effect."

Response: We disagree with the commenter. As we have stated elsewhere, subsections (kk)(2) and (kk)(3) of 40 CFR 51.100 only apply to within-formula fluid modeling demonstrations. They are used to determine whether a source should receive full credit for a formula height determination. As a starting point, a formula height must first be calculated in accordance with 40 CFR 51.100(ii)(2), and this formula height then becomes the upper bound for any fluid modeling demonstration under subsection (kk)(2) or (kk)(3). In our view, a formula height that is not calculated in accordance with 40 CFR 51.100(ii)(2) is not a formula height at all; in this situation, there is no formula height to be verified and one never reaches fluid modeling under subsection (kk)(2) or (kk)(3). As we describe in detail elsewhere, we do not believe formula height for MSCC's stack under 40 CFR 51.100(ii)(2) may be calculated based on the BGI structure or the stack support structure. Neither is a nearby structure under 40 CFR 51.100(jj)(1). It is only when the *accuracy* of the formula for a *nearby structure* is questioned that subsection (kk)(2) or (kk)(3) apply. We describe elsewhere when each applies.

The commenter mis-reads the intent of the stack height regulations. The stack height regulations are intended to

ensure that inappropriate dispersion is not used in lieu of emissions controls. Generally speaking, the regulations restrict stack height credit to the minimum needed to avoid excessive concentrations. And, the regulations do not require or ensure that stacks of any particular height be built. After all, dispersion is only one means to address ground level concentrations of pollutants. Thus, we do not believe granting greater stack height credit is a goal of the regulations, and we do not believe the commenter's interpretation of our regulations is consistent with the intent of the regulations or the Act.

(h) *Comment:* One commenter (CPP letter, document # IV.A-18, exhibit A, Attachment I) stated his understanding that EPA waives the demonstration requirement under 40 CFR 51.100(kk)(2) for existing sources where new structures have been built after the original stack was designed (referring to the BGI structure, the stack support structure, tankage and buildings) that may reasonably be expected to produce additional downwash effects.

Response: Our policy provides that it will generally be reasonable for a source seeking credit for additional stack height to recalculate its good engineering practice formula height due to the siting of a new, nearby structure, without the need to justify the increase through fluid modeling under subsection (kk)(2). See June 29, 1992 memorandum for John Calcagni entitled "Credit for Stack Height Increases Due to the Siting of New, Nearby Structures," document # IV.C-76. As we already indicated, we do not consider either the BGI structure or the stack support structure to be nearby structures as defined in our regulations. Thus, they may not be used to calculate formula height, and within formula fluid modeling demonstrations are not appropriate. We are not sure what tanks and buildings the commenter is referring to, but to our knowledge, neither MSCC nor the State have calculated a formula height for MSCC greater than 65 meters based on tanks or other buildings.

(i) *Comment:* One commenter (CPP letter, document # IV.A-18, exhibit A, Attachment I) stated that this is one of the most extensively evaluated GEP stack heights he is aware of in his professional career, which spans over 20 years.

Response: We do not doubt the amount of effort CPP put into their evaluation. However, we strongly disagree with the commenter's interpretation of the stack height regulations. Under current conditions, we cannot approve stack height credit

for MSCC greater than 65 meters. The commenter's hypothetical about one stack A outside 5L and another stack B within 5L receiving different stack height credit is not convincing. Again, this is a result of the way the stack height regulations are written. If stack A is only built to 65 meters, and is modeled at 65 meters in an attainment demonstration, the assertion that NAAQS exceedances are likely to occur due to downwash "fictitiously ignored" is inaccurate. The modeling for the attainment demonstration using the actual height of the stack should ensure that NAAQS exceedances due to downwash or any other condition do not occur. If Stack A is built to 100 meters but only receives credit for 65 meters, dispersion modeling of the 65 meter stack height credit will, in a sense, over-predict the impact of Stack A emissions, and Stack A will have to control emissions as if it were a 65 meter stack. However, this is exactly what the stack height regulations require if 65 meter credit is all that's warranted under the regulations.

(j) *Comment:* One commenter (MSCC letter, document # IV.A-20, comment # 2.D) stated that BGI should be considered a nearby structure for determining formula height for the MSCC stack. The commenter claimed that guidance assumptions artificially restrict the height calculations for the BGI structure; that the true height of the BGI structure is much taller than the artificially restricted height calculations. According to the commenter, using the true height of the BGI structure in the 5L formula specified in the regulations would make the BGI structure nearby for purposes of determining formula height.

Response: The State rejected MSCC's arguments that BGI is a nearby structure for purposes of determining formula height. Because the State did not adopt MSCC's position in calculating GEP stack height credit for MSCC, we do not believe this proposition is before us in this rulemaking. Assuming for the sake of argument that we need to consider this alternative theory, MSCC has not provided information to support its assertion that the BGI is within 5L of the MSCC stack. Our information indicates that BGI is not within 5L of the MSCC stack.

(k) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, pp. 31, 32) stated that MSCC's nuisance studies support a formula stack of 98.15 meters.

Response: The State did not approve GEP stack height credit for MSCC based on MSCC's nuisance studies. Because the State did not adopt this position in

calculating GEP stack height credit for MSCC, we do not believe this proposition is before us in this rulemaking. However, assuming for the sake of argument that we have an obligation to consider this potential justification, we disagree with the commenter. Section 51.100(kk)(2) only applies for sources raising stacks below formula height up to formula height. The commenter assumes formula height is 98.15 meters. However, this is based on the stack support structure. As explained in our proposal and elsewhere in this document, the stack support structure may not be used to calculate formula height because it is part of the stack itself. Furthermore, under section 51.100(kk)(2), MSCC could only increase its stack height credit to the formula height calculated based on nearby structures that existed as of the time the nuisance was present—in other words, before the stack was raised.²⁹ See 50 FR 27899, 27901. In MSCC's case, this was less than the de minimis height of 65 meters, so a nuisance showing would provide no benefit. We have previously indicated that MSCC may receive credit for stack height up to 65 meters without a demonstration.

(l) *Comment:* Two commenters (CPP letter, document # IV.A-18, exhibit A, p. 5 and Attachment I; Goetz letter, document # IV.A-18, exhibit D, pp. 13-15) stated that 40 CFR 51.100(kk)(3) is the most appropriate method for determining GEP stack height credit for MSCC's SRU 100-meter stack and it does not require any presumed rate of emissions. One of the commenters (Goetz) asserted that Dr. Petersen's (MSCC's consultant) wind tunnel study verified GEP stack height at 98.15 meters under subsection (kk)(3) and that neither EPA nor the State had conducted a wind tunnel study to refute Dr. Petersen's findings.

Response: As an initial matter, we do not believe this comment is relevant to our action because the State did not adopt or approve the within-formula approach. Nevertheless, we respond to the comment. Once again, the stack support structure may not be used to establish formula height, and thus, of necessity, for any heights above 65 meters, MSCC is seeking above-formula stack height credit. Because MSCC is seeking above-formula stack height credit, subsection (kk)(3) is not

applicable. See 50 FR 27900-27901, July 8, 1985. Even if MSCC were seeking within-formula stack height credit, subsection (kk)(3) would not apply to MSCC's fluid modeling demonstration because subsection (kk)(2) applies when a source seeks credit after October 11, 1983 for increasing existing stack height. Id. at 27899-27901; *NRDC v. Thomas*, 838 F.2d 1224, 1239-1240. MSCC had an existing stack before October 11, 1983, and is seeking credit after October 11, 1983 for increasing the existing stack height. The provisions of 40 CFR 51.100(kk)(3) only apply to new construction. 50 FR 27900-27901; *NRDC v. Thomas*, 838 F.2d 1224, 1239-1240, 1247. Thus, the categories under subsection (kk) are mutually exclusive and hierarchical. It becomes progressively easier to justify stack height credit as one moves from subsection (kk)(1) to subsection (kk)(3). If subsection (kk)(1) applies, a source may not use subsection (kk)(2) or subsection (kk)(3). If subsection (kk)(2) applies, a source may not use subsection (kk)(3).

Therefore, Dr. Petersen's wind tunnel study did not properly verify GEP stack height at 98.15 meters based on subsection (kk)(3), and there was no need for EPA or the State to conduct a wind tunnel study to refute Dr. Petersen's findings. Legally, those findings are not supportable.

(m) *Comment:* One commenter (CPP letter, document # IV.A-18, exhibit A, Attachment I) stated that "[i]t has been argued that any height can be justified as GEP based on the 40% test, but as those knowledgeable in the field know, this is not true." The commenter suggested that subsection (kk)(3)'s requirement for a showing of a 40% increase in downwash in the wind tunnel test will constrain the amount of stack height credit that will be granted to a rounded structure like a stack.

Response: We are not sure the commenter is suggesting this, but we want to clarify that we have not taken the position that any height can be justified in the wind tunnel based on the 40% test of excessive concentrations. We recognize that the 40% test will act as a constraint on GEP stack height credit in certain situations, depending on the dimensions of nearby structures and wind conditions. This should be distinguished from our position regarding the use of stack dimensions to calculate GEP formula height. Because formula height equals one times the height of the structure plus one and a half times the lesser of the height or width of the structure, application of the formula to stack dimensions will always result in

²⁹ MSCC claimed that its pre-existing 30 meter stack resulted in a nuisance and asserted that the drastic reduction in citizen complaints after the erection of the 100-meter stack demonstrated the existence of a nuisance before the 100-meter stack was erected. see Goetz letter, document # IV.A-18, exhibit D, at p. 32.

formula height slightly higher than the stack. We reiterate that application of the formula in this manner amounts to a stack justifying itself.

As indicated in response to the previous comment, because we do not believe the GEP formula may be applied to the stack support structure in the first instance, we do not believe MSCC may avail itself of the provisions of subsection (kk)(3) or (kk)(2) of 40 CFR 51.100, which are clearly less stringent than the requirements of 40 CFR 51.100(kk)(1).

(n) *Comment:* One commenter (CPP letter, document # IV.A-18, exhibit A, p. 5) stated that MSCC's contractor and others have conducted a number of GEP stack height demonstrations in complex terrain where a GEP stack height significantly taller than formula height has been justified. The commenter cited four examples and concludes that above formula stack heights are not rare.

Response: The import of this comment is not clear to us. If the commenter is suggesting that Congress's intent—that above-formula stack height credit should be rarely granted—has not been achieved in practice, we do not think this is relevant. It does not change Congress' intent. Furthermore, four sources, among all the possible sources within the United States, is not very many. To the extent the commenter is suggesting MSCC's contractor has expertise from other cases in conducting above-formula demonstrations, that does not alter our reading of the statute and the regulations, and our view that MSCC's various stack height demonstrations are not supportable.

(o) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, pp. 29–31) stated that EPA must evaluate MSCC's air dispersion study, which allegedly demonstrated excessive concentrations. According to the commenter, EPA's rejection (for both ExxonMobil and MSCC) of dispersion modeling for purposes of showing excessive concentrations is arbitrary and in violation of its modeling guidelines. The commenter quoted from EPA's guidelines.

Response: The State did not approve GEP stack height credit for MSCC based on MSCC's air dispersion study. Because the State did not adopt this position in calculating GEP stack height credit for MSCC, we do not believe this proposition is relevant to our action. However, assuming for the sake of argument that we have an obligation to consider this potential justification, we disagree with the commenter. The stack height regulations are clear—GEP stack height is defined as the greater of (1) 65 meters, (2) formula height, or (3) “the

height demonstrated by a fluid model or a field study * * *” 40 CFR 51.100(ii). The regulation does not allow for dispersion modeling demonstrations of downwash.

Furthermore, the commenter misinterprets our modeling guideline at 40 CFR part 51, appendix W, section 7.2.5. Section 7.2.5(a) of appendix W clearly indicates that GEP stack height is defined elsewhere and that other documents should be followed for determining GEP stack height credit. Section 7.2.5(b) of appendix W must be read in conjunction with the remainder of appendix W (section (a) of the Preface to appendix W is instructive) to understand its application. Section 7.2.5(b) does not indicate that dispersion modeling may be used to determine downwash under our stack height regulations; instead, it indicates that dispersion modeling may be used to calculate cavity and wake effects for stacks under formula height when a State or EPA is evaluating air quality impacts and the adequacy of a control strategy in a SIP revision. This is a different purpose, and, as we noted in our September 16, 1994 letter from Douglas Skie to Jeffrey Chaffee (document #IV.A-17, MSCC Exhibit 123), the dispersion model (ISC) is based on assumptions regarding the existence of downwash for stacks less than formula height that are not appropriate for a fluid modeling demonstration.

(p) *Comment:* One commenter (Goetz letter, document #IV.A-18, exhibit D, p. 17) stated that EPA's position, that it need not review the issue of whether MSCC is entitled to formula height of 98.15 meters because this was not a basis for the approval request submitted by Montana, is wrong. The commenter cited *Bethlehem Steel Corp. v. U.S. EPA*, 782 F.2d 645, 651–652 (7th Cir. 1986). MSCC's alternative demonstrations must be addressed.

Response: We disagree with the commenter. As we have already discussed, we do not believe we are obligated to review stack height demonstrations the State has not endorsed and submitted to us for approval. We also do not believe the case the commenter has cited stands for the proposition that we must review theories the State has not endorsed and submitted to us. In the portion of *Bethlehem Steel Corp.* that the commenter cites, EPA disapproved a State regulation that the State had submitted for approval into the SIP, and the Court held that EPA's disapproval was reviewable. Unlike in *Bethlehem Steel Corp.*, MSCC's alternative demonstrations were neither adopted by

the State nor submitted to us for approval. In the event that a Court decides we are obligated to consider MSCC's alternative demonstrations, we have considered all comments related to MSCC's other theories and have provided our reasons for rejecting those theories.

(r) *Comment:* Two commenters (MSCC letter, document #IV.A-19, comment #49; Goetz letter, document #IV.A-18, exhibit D, p. 18, footnote 9, p. 28) stated that the CPP/Bison fluid modeling analysis performed for MSCC showed a NAAQS exceedance.

Response: The State did not approve GEP stack height credit for MSCC based on the claimed NAAQS exceedance. Because the State did not adopt this position in calculating GEP stack height credit for MSCC, we do not believe this proposition is relevant to our action on the SIP before us. However, assuming for the sake of argument that we have an obligation to consider this potential justification, we disagree with the commenter. The demonstration that purportedly showed a NAAQS exceedance was improperly performed. MSCC's contractor used fluid modeling to predict ambient concentrations from background sources when evaluating whether MSCC and background sources would cause an exceedance of the NAAQS. However, fluid modeling has limited predictive abilities when applied to background sources for this purpose. We first raised this as an issue in our March 15, 1996 letter from Richard Long, EPA, to Jeffrey Chaffee, Montana DEQ (document #II.F-20.) The fluid modeling application simulated downwash at the MSCC facility based on a narrow set of meteorological conditions that would tend to maximize downwash effects. This was necessary to determine whether the stack height regulations' downwash threshold of 40% was met. Other sources, including nearby background sources, have maximum impacts that may occur under different meteorological conditions that the fluid model cannot accurately simulate. To determine the impacts of these sources on ambient concentrations for all meteorological conditions, the full five years of Billings sequential hourly meteorological data must be input to the appropriate EPA dispersion model (ISC). MSCC's contractor failed to follow State and EPA guidance on this issue. Consequently, prior to State adoption of the SIP revision, State staff performed a reanalysis of MSCC's contractor's results using appropriate dispersion models. That reanalysis only showed a MAAQS exceedance, not a NAAQS exceedance. See March 1, 1996 memorandum from John Coefield to

Files, document #IV.A-18, MSCC Exhibit 141; March 15, 1996 letter from Richard Long to Jeff Chaffee, document #II.F-20.

6. Miscellaneous Issues

We received various other comments regarding MSCC's stack height credit. We have considered the comments and nothing in them has caused us to change our position regarding MSCC's stack height credit and emissions limitations.

(a) *Comment:* One commenter (MSCC letter, document #IV.A-19, comment #26) stated that EPA has a policy of simply delaying and not granting stack height credit, without regard to its own rules or the intent of the Clean Air Act. According to the commenter, "EPA has had access to these studies since 1996, and opportunity to participate in their design."

Response: We do not have a policy of simply delaying and not granting stack height credit. We have approved stack height credit for many sources. We believe we are correctly applying our rules and the Clean Air Act to MSCC. We believe the commenter is referring to MSCC's consultants' stack height studies when the commenter refers to "these studies." We had an opportunity to comment on these consultants' analyses and raised many concerns that MSCC and/or the consultants have not heeded. Since May of 1996, we have indicated that MSCC would have to meet the NSPS as an ongoing limit in the SIP to qualify for above-formula stack height credit.

(b) *Comment:* One commenter (MSCC letter, document #IV.A-19, comment #42) stated that EPA's position appears to deny a level playing field to potential future MSCC fluid modeling because new, lower SIP limits at other sources will make MSCC's ability to remodel even more problematic. The commenter noted that such demonstrations are based in part on the level of background emissions.

Response: We do not believe this comment is relevant to our action on the SIP before us. We have not considered the appropriate approach for determining background for future fluid modeling demonstrations that MSCC may or may never conduct.

(c) *Comment:* One commenter (MSCC letter, document #IV.A-19, comment #83) stated that Montana complied with 40 CFR 51.118 in that it set limits based on GEP stack height credit for MSCC, and that the SIP limits were not affected by any stack height exceeding GEP.

Response: We disagree that the stack height used for MSCC in dispersion modeling to set SIP limits represents GEP. We have fully explained our

reasoning in our proposal and in this document. We have considered all comments on this issue, but do not believe they warrant a change in our position.

(d) *Comment:* One commenter (MSCC letter, document #IV.A-19, comment #84; MSCC letter, document #IV.A-20, comment #1.G) stated that Congress' alleged concern with downwind areas is not factually correct and is not germane to this action. The commenter claimed that section 123 of the Act refers to no such concern. The commenter claimed that 123 explicitly seeks to allow and encourage stack heights that are at least GEP in height and to prohibit interference with stacks by the agency, by allowing credit up to such height. The commenter asserted that EPA's own rules and preamble dismiss the potential impacts of sources like MSCC that are under 5,000 tons per year on downwind areas as insignificant. The commenter suggested that EPA is using interpretation to selectively enforce an alleged congressional goal, and that it is highly inappropriate to do so in this case because there is no credible evidence that MSCC's relatively small emissions will negatively impact distant downwind areas. The commenter also seemed to be suggesting that it is absurd to apply this restrictive interpretation to MSCC when the only impact is on MSCC's short-term emissions (daily, 3 hour), which will not impact downwind areas, while its annual emission limit remains the same, and the NAAQS will be protected, regardless of whether stack height credit is 97.5 meters or 65 meters.

Response: The commenter's interpretation is inconsistent with the language and structure of section 123 of the Act, the legislative history of section 123, holdings of the D.C. Circuit, and EPA's statements in the preamble to the stack height regulations. Section 123 makes clear that a state may not consider stack height exceeding GEP in setting SIP emission limits. Thus, the commenter's assertion that Congress wanted to encourage stack heights at least GEP in height is inaccurate. Congress wanted to allow for stack heights up to GEP to be considered in setting SIP limits, but not beyond. This was clearly Congress' means of pushing sources to install controls rather than use greater-than-GEP stacks to meet SIP requirements. One of the reasons Congress did so was out of concern for downwind transport of pollutants and general loading of pollutants to the atmosphere. H.R.Rep. No. 294, 95th Cong., 1st Sess. 83-86 (1977). If Congress wanted to encourage stack heights at least GEP in height, it could have given states and the Administrator

the authority to encourage stacks at least GEP in height. Congress did not do so.

The commenter is correct that we concluded in our preamble to the final regulations that the combined impact of sources under 5,000 tons per year was de minimis for certain specified purposes. 50 FR 27904, July 8, 1985. Based on this conclusion, we promulgated a final regulation that exempted from the definition of certain dispersion techniques, sources with allowable emissions less than 5,000 tons per year. However, this exemption does not apply to use of stack height above GEP in setting SIP emission limits. The rule is clear on its face, and the preamble does not provide a different interpretation of the rule language.

The commenter's claim that we are applying the regulation and interpretation of congressional intent selectively to MSCC is not accurate. We are applying a consistent interpretation of the regulation, which is supported by the congressional intent underlying section 123 of the Act, to MSCC and other sources. The potential downwind impact and impact on atmospheric loadings from MSCC may not be as great as from a large eastern power plant, but the principle is the same. A source's limits in a SIP cannot be set based on stack height that exceeds GEP.

EPA established a de minimis stack height credit of 65 meters, which is the only "exemption" that applies for purposes of stack height credit. MSCC has chosen not to take advantage of this exemption, and because MSCC is seeking above-formula height, it is subject to all of the restrictions that apply to above-formula demonstrations, for all sources.

(e) *Comment:* One commenter (MSCC letter, document #IV.A-20, comment #1.H) stated that the 1990 amendments to the Act exempted sources like MSCC from the acid rain program and EPA's proposed disapproval of MSCC's stack height credit is thus unnecessary to achieve any acid rain goal.

Response: The fact that MSCC may not be subject to the acid rain provisions of the Act has no relevance to whether MSCC's stack is subject to the stack height regulations. The focus of section 123 and the focus of the acid rain program may be different even if some of their overarching goals are the same. Congress did not repeal section 123 when it enacted the acid rain program.

(f) *Comment:* One commenter (MSCC letter, document #IV.A-19, comment #85) stated that EPA is not accurate in the TSD, page 52, when it states that Congress limited the height that may be credited to stacks in dispersion modeling used to demonstrate

attainment and maintenance of the NAAQS. The commenter indicated that section 123 makes no mention of dispersion modeling.

Response: The commenter is correct that section 123 does not specifically mention dispersion modeling. However, dispersion modeling is clearly one means of setting SIP emission limits, a means that we have the discretion to require under section 110(a)(2)(K) of the CAA and that we have required under our SIP regulations, at 40 CFR 51.112. It is difficult to imagine how section 123 restrictions would be implemented without some form of modeling, something the D.C. Circuit clearly recognized. See *Sierra Club v. EPA*, 719 F.2d 436, 441 (D.C. Cir. 1983). Contrary to the commenter's assertion, we are not attempting to interpret our regulations to specifically deny MSCC stack height credit.

(g) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 34, 97) stated that EPA did not intervene in the State contested case hearing regarding MSCC's limits, did not present evidence at the Board hearing adopting the State's findings, and did not meet with MSCC directly until after the Board had acted. The commenter asserted that EPA's only recourse if it disagreed with the State's determination of GEP or approval of the fluid modeling demonstration was to challenge the Montana Board's adoption of the stipulation for MSCC in state court.

Response: The CAA grants us an approval role for SIPs. We have an obligation to evaluate the SIP against CAA and regulatory requirements pursuant to federal procedural requirements contained in the Administrative Procedure Act. There is no requirement that we pursue our objections through state administrative or judicial procedures. And, we are not required to rubber stamp a stack height determination made by a state.

Notwithstanding the foregoing, we were very involved in providing input to the State regarding these issues throughout the development of the SIP. The State and MSCC chose to disregard our input on stack height issues. We would have been happy to meet with MSCC at any time during the process, but did not want to interfere with the State's process. We did meet with MSCC and the State at critical junctures regarding the SIP.

(h) *Comment:* One commenter (MSCC letter, document # IV.A-19, # 36) stated that even if EPA had authority under the CAA to disapprove credit granted by a state, EPA should have the burden of proof to show that the state erred grossly and substantively in its findings and

interpretation of the rules defining the GEP demonstration that the state approved, and that the State's error caused or is likely to cause substantial harm.

Response: Our responsibility is to ensure that the SIP meets the Act's requirements. There is no burden of proof or gross error standard that applies to our review of the SIP, and we need not find any causation of substantial harm other than the simple failure of the SIP to meet CAA requirements. As mentioned above, section 110(k)(3) of the Act indicates we can approve the plan if it meets all of the applicable requirements of the Act and disapprove parts of the plan if it does not. Also, section 110(l) of the Act indicates we shall not approve a revision of a plan if the revision will interfere with any provisions of the Act.

(i) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 102; MSCC letter, document # IV.A-20, comment # 8) complained that EPA did not quote legislative history of 123 more in its proposed rulemaking, and stated his suspicion that the language EPA did quote "is the comment of one legislator talking about the prior EPA guidance (before section 123)." The commenter asserted that the cited language is not credible as to the intent of Congress as a whole. The commenter also stated that the court's reading into section 123 the admonition that credit above formula height should be granted only with "utmost caution" is not supported in any explicit way by the CAA text.

Response: We did not feel it was necessary to quote further from section 123's legislative history. We have referred to language from the legislative history that the D.C. Circuit found persuasive in two different cases challenging the stack height regulations and that we relied on in promulgating the stack height regulations. See *NRDC v. Thomas*, 838 F.2d 1224, 1242; 1 *Sierra Club v. EPA*, 719 F.2d 436, 450; 50 FR 27898. The language, that above-formula stack height credit would "be highly infrequent and that the latitude given the Administrator to allow full credit for such stack height (would) be exercised with circumspection and utmost caution in those rare circumstances proven to justify its use," appears in the House committee report for the 1977 amendments to the Clean Air Act. H.R.Rep. No. 294, 95th Cong., 1st Sess., p. 93.

We do not believe it's relevant that section 123 does not explicitly include the admonition from the legislative history. As noted above, this language has been critical in the promulgation

and proper interpretation of the stack height regulations.

(j) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 104) stated that MSCC is not in a position to trade for emissions from other entities, and wants to know who it would trade with.

Response: This is one potential option a source may employ to comply with the stack height regulations. We are not in a position to evaluate the commenter's assertions regarding feasibility of obtaining emissions credits from another source. Often, a source might be willing to trade emission credits in exchange for compensation.

(k) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 105) stated that MSCC cannot accept the option of stack height credit of 65 meters, the lowest defined by law. According to the commenter, MSCC can hardly embrace this since it built its stack in full expectation that the government would honor its agreement that a 100-meter stack was good engineering height if built.

Response: MSCC need not accept a 65 meter stack height credit if it can make a demonstration for a higher stack height credit in accordance with regulatory requirements. We are not sure what government the commenter is referring to. In any event, it is well-settled under applicable case law that any 100 meter stack height credit the State may have granted MSCC in 1977 was not grandfathered when we issued our 1985 stack height regulations. See *NRDC v. Thomas*, 838 F.2d 1224, 1249. Thus, MSCC's complaint is with the stack height regulations, which may not be challenged in this action.

(l) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, p. 60) stated that a 1977 stipulation between the State and MSCC establishes a 100 meter stack height as good engineering design. The commenter noted that EPA approved this stipulation as part of the SIP and reads a June 29, 1993 letter from EPA to the State to mean that MSCC's 100-meter stack height credit should be preserved. In the commenter's view, the July 1985 stack height regulations did not overturn MSCC's 1977 stack height credit. The commenter also argued that "the Government," in this case the State, should be forced to keep its "word." The commenter suggested that it would be equitable to force the State to abide by its 1977 agreement and for the EPA to cease to interfere. Another commenter (MSCC letter, document # IV.A-19, comment # 37) stated that EPA gave guidance before and while the

stack was being built that credit once lawfully given is normally retained.

Response: See our response to the previous comment. MSCC's 1977 stack height credit was not grandfathered under our 1985 stack height regulations because MSCC did not build the 100 meter stack before the trigger dates in the regulations. MSCC documents show that stack construction did not begin until November 1993. See document # IV.A-17, MSCC Exhibit 37. Thus, the 1985 stack height regulations *did* overturn MSCC's 1977 stack height credit. In fact, the D.C. Circuit said the following on this subject:

A second preliminary issue is whether the regulations, which say nothing explicit on the subject, actually invalidate the prior approvals. *We believe they do.*

NRDC v. Thomas, 838 F.2d 1224, 1249, emphasis added. Under the circumstances, it would not be equitable to grandfather MSCC's 1977 stack height credit now. We cannot ignore the requirements of our regulations in acting on the Billings SIP.

The commenters mischaracterize our communications on this issue. In our June 29, 1993 letter to the State, we clearly stated that the 1977 stack height credit could only be preserved if it had not been overturned by the 1985 stack height regulations:

Therefore, before EPA would accept that 100 meters is the GEP height, documentation would need to be provided which demonstrates that the 100 meters credit was legitimately given and was not later overturned by the July 8, 1985 rules.

See letter from Douglas Skie to Jeffrey Chaffee, document # IV.C-43. Since the 1985 stack height regulations overturned MSCC's prior stack height credit, the credit was not preserved.

In any event, the State did not adopt the position that the 1977 stack height credit was grandfathered, and thus, we do not believe this issue is relevant to our action.

(m) *Comment:* One commenter (MSCC letter, document # IV.A-19, comment # 106) stated that EPA has not offered options in a form that MSCC could understand.

Response: We believe the options are understandable.

(n) *Comment:* One commenter (State letter, document # IV.A-23, p. 21) requested that EPA include in the record all briefs filed in *NRDC v. Thomas*, No. 85-1488 and Consolidated Cases and all briefs filed in the *Ohio Power* case, Nos. 86-1331 and 86-1362.

Response: We will include all briefs from these cases that we considered.

(o) *Comment:* One commenter (State letter, document # IV.A-23, p. 11) stated

that the State provided its legal analysis of the stack height issue to EPA, but EPA did not provide its legal analysis to the State until EPA developed its technical support document for this action.

Response: This comment is irrelevant to the adequacy of the SIP. However, we made our legal position known in the Spring and Summer of 1996 and provided various documents to Jim Madden, the State's attorney, that supported our position on the stack height issue (see document #IV.C-44).

(p) *Comment:* One commenter (State letter, document # IV.A-23, p. 11) stated that under the State's interpretation of EPA's rules, the NAAQS are protected. According to the commenter, even if EPA were to prevail in its interpretation of the stack height rules, it is unlikely that any additional emissions controls will be required at MSCC. Another commenter (MSCC letter, document # IV.A-19, #s 52, 53) stated essentially the same thing and added that MSCC's operation at lower rates will not improve modeled NAAQS compliance. This commenter also suggested that our denial of stack height credit to MSCC will only serve to transfer emission rights to some other source in some future re-apportionment of the airshed.

Response: The standard for approval or disapproval of stack height credit is not based on whether an area can demonstrate attainment or maintenance. We have made clear that it is possible to protect the NAAQS through dispersion as well as through emission control. This is something the courts have also recognized. See *NRDC v. Thomas*, 838 F.2d 1224, 1230-1231. However, in enacting section 123 of the CAA, Congress sought to limit the degree to which dispersion could be used to attain and maintain the NAAQS, and, pursuant to Congress' directive, we have promulgated regulations to limit the use of stack height to meet SIP requirements. These regulations have been upheld by the D.C. Circuit and we are applying our regulations to the Billings SIP.

The extent of emission reductions that would result at MSCC through application of our interpretation of the stack height regulations might not be that significant. (Under our interpretation, MSCC would have to accept a de minimis 65 meter stack height credit. It is only when above-formula stack height credit is granted that the source must meet NSPS or BART.) We believe MSCC's 3 hour and 24 hour limits would probably have to be reduced, but MSCC's annual limit would probably remain the same. The fact that MSCC's limits would not

change that much, however, is not a reason for us to ignore the requirements of our regulations. Furthermore, one of the reasons MSCC could meet a lower 3 hour and 24 hour limit is because it has recently installed additional control equipment. We understand MSCC did this for business purposes and not necessarily to meet State-imposed SIP limits. However, it appears that the recently-installed Super Claus unit might help the State and MSCC meet the requirements of the stack height regulations without the need for above-formula stack height credit at MSCC.

The assertion of emission rights in the airshed is something we address more fully elsewhere in this document. However, in the first instance, we believe the assertion regarding transfer of emission rights is irrelevant. If such a transfer occurs through the correct application of section 123 of the Act and our stack height regulations, then this is merely a result of the structure of the statute and the stack height regulations, and the commenter may not challenge either in this action. Second, a particular allocation of emissions among sources within an airshed is not a goal of the stack height regulations. Instead, the goal is to ensure that unsanctioned dispersion is not used to set emissions limitations for sources generally. To the extent unsanctioned dispersion is avoided, emissions limitations within an airshed generally will be lower. However, for any area modeling attainment, the emissions limitations for each individual source may vary significantly. In this case, if the ultimate result for MSCC is the de minimis 65 meter stack height credit that we think is valid, it is likely that a lower 3-hour emission limit at MSCC will be necessary, as discussed above. We do not believe any other source would be able to increase its emissions limitations as a result, because any dispersion modeling for attainment would be required to model MSCC's stack at 65 meters.

(q) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, pp. 6, 7) stated that MSCC would have to make expensive changes to meet short-term limits based on a 65 meter stack height credit, and that these changes would result in only marginal reductions in sulfur dioxide. The commenter intimated that this could affect MSCC's ability to survive.

Response: In evaluating a SIP, our obligation is to determine whether the SIP meets the requirements of the Clean Air Act and our regulations. Essentially, the commenter is saying we should ignore applicable requirements because applying them would impose an

economic burden on MSCC. We are not permitted to do this in taking action on a SIP submission. See *Union Electric Company v. EPA*, 96 S.Ct. 2518 (1976). Furthermore, our disapproval of MSCC's emission limits and stack height credit will not force MSCC to immediately meet an emission limit based on a 65 meter stack height credit; we are not substituting our emission limits for MSCC as part of this action. Also, please see our response to the previous comment.

(r) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, p. 8) stated that from the point of view of fundamental fairness and environmental protection, EPA should take a reasonable attitude toward GEP credit for MSCC's existing 100-meter stack. The commenter noted that MSCC is forced to have greater emission controls for pound of sulfur than ExxonMobil and other sources because MSCC has less natural buoyancy flux or plume rise. The commenter asserted that greater stack height credit should be approved as a substitute for MSCC's lack of natural plume rise.

Response: We believe our fundamental obligation is to implement the requirements of section 123 of the Act and our regulations. In this case, the emission limits the State has established for MSCC are too high because they are based on invalid stack height credit. The State could have addressed MSCC's concerns with its plume rise by imposing greater controls on other sources, but chose not to.

(s) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, p. 10) stated that EPA's stack height regulations are two pages in length and that one would think the regulations "could be applied rationally and with dispatch." The commenter asserted that, instead, EPA and the State have shifted positions numerous times on various points, apparently having great difficulty interpreting their own rule. Among other things, the commenter cited from testimony of the State's meteorologist, John Coefield, indicating that he considered the stack height regulations to be very complicated.

Response: We have responded to most of these assertions elsewhere in this document. However, we agree with the commenter and the State's meteorologist that the stack height regulations, despite their brevity, are quite complicated. This is an additional reason we believe our official interpretation of our stack height regulations, which has been consistent since the stack height regulations were promulgated, is entitled to deference.

(t) *Comment:* One commenter (MSCC letter, document # IV.A-19, # 13), while arguing that we subjected MSCC to ex post facto laws, indicated that we changed position regarding the requirements of the stack height regulations during the development of the SIP and MSCC's attempts to demonstrate GEP stack height. The commenter gave the following examples regarding stack height: "Redefinition of GEP following 1977; prior to its 1996 demonstration (regarding structure for formula height); following its 1996 approval by the State of that demonstration; 1990 CAA imposition of deadlines for SIPs while not readjusting the GEP rules to accommodate those time frames; * * * decrees that 'you cannot use formula height' because we will not apply it; hence you cannot get credit for your stack even though if we did allow you to use formula height your demonstration works."

Response: As to the assertion that we acted unconstitutionally, we respond to this comment in another section. To the extent the commenter is also suggesting that we are estopped from disapproving the stack height credit for MSCC because EPA personnel allegedly provided preliminary comments that were not consistent with our current position, we believe the commenter is mistaken. We believe we have an ultimate obligation, in taking a final action on a SIP, to apply our regulations and the CAA correctly, and that it is inappropriate to ignore legal requirements even where inconsistent advice may have been given during SIP development. We also believe that any inaccurate statements were promptly corrected, and that MSCC and the State had ample time to correct any problems in MSCC's fluid modeling demonstration and emission limits. MSCC and the State have been aware of our official position for over five years. This same estoppel issue was raised in *NRDC v. Thomas*, except that in that case, unlike this one, we had actually approved a fluid modeling demonstration and GEP stack height credit. Despite this fact, the Court upheld the stack height regulations' requirement that the sources perform new demonstrations, based on the new regulations. The position we are taking regarding stack height requirements is not new. It has been apparent since we promulgated the 1985 stack height regulations, which obviously pre-date MSCC's construction of its 100-meter stack.

(u) *Comment:* One commenter (Goetz letter, document # IV.A-18, exhibit D, pp. 10, 13) stated that MSCC has

incurred unnecessary expenditures because EPA and the State have been vague and equivocal in interpreting the stack height regulations. The commenter stated that EPA and DEQ have shifted positions numerous times on various points, and have had great difficulty interpreting the stack height regulations. For example, the commenter complained that the State was uncertain what type of modeling would be required to verify formula height. According to the commenter, the State initially said dispersion modeling could be used and then changed its mind when EPA said fluid modeling would be necessary. The commenter claims this is an example of agency flip-flopping which resulted in a waste of time and money for MSCC.

Response: Although we have corrected some of our positions during this process, it is not apparent that we have caused MSCC to incur expenditures that it would not have otherwise incurred. For example, MSCC conducted dispersion modeling to show downwash despite being aware that we had rejected use of dispersion modeling to justify stack height credit. See document # IV.A-17, MSCC Exhibit 124, Direct Testimony of Harold W. Robbins, December 5, 1995, p. 16. Likewise, MSCC has shown no reluctance to continue pursuing theories to justify greater stack height credit that have been rejected by EPA and/or the State. Furthermore, whether MSCC incurred expenditures it otherwise would not have is not relevant to our decision in this action. Our duty is to apply the Clean Air Act and relevant regulations correctly in this action. See our response to the previous comment.

We believe the portion of the comment that relates to the conduct of a within formula stack height demonstration is doubly irrelevant to our action because the State did not agree with or adopt MSCC's formula height calculation. Therefore, the SIP is not based on this theory. As to the substance of the comment, the regulation is explicit that fluid modeling or a field study are necessary, something we have discussed at length in response to a previous comment. Thus, it is not clear why MSCC's contractor thought this approach (dispersion modeling) would be acceptable.

(v) *Comment:* One commenter (MSCC letter, document # IV.A-20, comment # 1.L) stated that EPA itself has argued in its preamble in apologizing for various defects found in its own rules and formula that the effect of a few percent difference in determined GEP cannot have a substantial effect on emissions or substantially defeat any legitimate

legislative intent. The commenter asserted, however, that these small differences can be of critical importance to MSCC in meeting short-term limits.

Response: We do not know the preamble language the commenter is referring to. However, it appears the commenter is suggesting we ignore the requirements of the stack height regulations because the effects are likely to be insignificant at some larger level, but are significant for MSCC. We do not think we may ignore the requirements of section 123 of the Act and our stack height regulations.

(w) *Comment:* One commenter (MSCC letter, document # IV.A-20, comment # 2.L) stated that, given that EPA could have participated in the State's contested case hearing and rebutted MSCC's demonstrations, it is difficult to understand EPA's contention that MSCC's and Montana's objections are untimely.

Response: As we have stated elsewhere, we are not required to participate in the State's administrative proceedings related to SIP adoption. In our proposal, we indicated that MSCC's and the State's objections were untimely to the extent they questioned the validity of the stack height regulations themselves, which were adopted in 1985 and which were challenged and upheld in the United States Court of Appeals for the D.C. Circuit. MSCC has the opportunity in this action to challenge our application of the stack height regulations.

(x) *Comment:* One commenter (MSCC letter, document # IV.A-20, comment # 2.O) stated that EPA runs no substantial risk to any legitimate policy or goal of the Clean Air Act by approving MSCC's stack height credit.

Response: We respectfully disagree with the commenter. More importantly, we cannot approve MSCC's emission limits because they are inconsistent with the requirements of section 123 of the Act and our stack height regulations.

(y) *Comment:* One commenter (MSCC letter, document # IV.A-20, 2nd comment #'s 8.C and D) stated that a hearing was held on MSCC's stack height credit and no one objected. The commenter claimed that in fact, EPA recommended at the hearing that the State approve the SIP revision containing the approved demonstration and stack height credit for MSCC and forward it to EPA.

Response: We recommended that the State approve the SIP revision and forward it to us based on prior meetings and discussions with the State that indicated the State and MSCC were unwilling to change their position on the stack height issue. Under the

circumstances the State and EPA agreed that rather than spend more time trying to resolve this issue, the State should adopt the entire SIP revision and forward it to us for review "as a whole." See transcript of August 9, 1996 State hearing, testimony of John Wardell, pp. 36-38, document # II.C-3. All parties were well aware that we did not agree with the stack height credit for MSCC. It is irrelevant whether anyone objected to MSCC's stack height credit at the State hearing. We have an ultimate responsibility to ensure that the SIP is consistent with the Act and our regulations.

(z) *Comment:* One commenter (MSCC letter, document # IV.A-20, 2nd comment # 8.I) stated that EPA has stated that states may use EPA's fluid modeling guidelines as guidelines and that states have the freedom to impose more or less stringent requirements on fluid modeling demonstrations that the state approves. The commenter claimed that Montana had the freedom to impose less stringent requirements in this case.

Response: We are not sure what the commenter is referring to. Our guidelines do not allow states to ignore the requirements of the Act or regulations.

(aa) *Comment:* One commenter (MSCC letter, document # IV.A-20, comment # 10) stated that it is strained to argue that Congress did not allow the agency latitude in rulemaking to accommodate any factor other than downwash in its GEP rule while arguing that Congress authorized or required NSPS requirements for existing sources seeking increased stack height credit. The commenter claimed that section 123 of the Act only enumerates the requirement that a demonstration be made prior to public hearing. The commenter stated that it is also strained to argue that Congress intended to void contract law for determinations already made by the states just because Congress specifically exempted certain classes of sources based on the age of their stacks.

Response: Although we do not completely understand the comment, we do not believe our position is "strained." As we have explained elsewhere, our position stems from the regulations, the preamble to the regulations, the statute, relevant case law, and numerous other documents.

(bb) *Comment:* One commenter (ExxonMobil letter, document # IV.A-28, Attachment 1, pp. 1, 2) stated that EPA should approve the stack height demonstration and emissions limitations for MSCC because these form the cornerstone of the attainment demonstration and have successfully undergone substantial technical peer

review. The commenter also noted that the State continues to believe it has made the right interpretation.

Response: As fully described elsewhere in this document, our proposal, and our TSD, we do not believe it would be appropriate to approve MSCC's emissions limitations because they are based on stack height credit that is not valid under the Act and our regulations. We strongly disagree with the State's interpretation. We are not sure what "peer review" the commenter is referring to, but we believe this is irrelevant. We are not prepared to approve emissions limitations based on stack height credit that is not consistent with the Act and our regulations.

(cc) *Comment:* One commenter (CPP letter, document # IV.A-18, exhibit A, pp. 1-4) provided his chronology of events related to MSCC's efforts to demonstrate GEP stack height for MSCC's 100-meter stack.

Response: We do not view this chronology as a comment. Therefore, we are not providing a specific response. However, any issues related to this chronology have been raised in specific comments on our action and are addressed in our responses to those comments.

(dd) *Comment:* Three commenters (McGarity letter, document # IV.B-1, p. 2; Zaidlicz letter, document # IV.A-30, p. 2; Yellowstone Valley Citizens Council letter, document # IV.A-29, p. 2) stated their support for EPA's proposal to disapprove the 97.5 meter stack height credit for MSCC.

Response: We acknowledge the support and are finalizing our disapproval of the emissions limitations for MSCC's 100-meter stack.

VI. Administrative Requirements

A. Executive Order 12866

The Office of Management and Budget (OMB) has exempted this regulatory action from Executive Order 12866, entitled "Regulatory Planning and Review."

C. Executive Order 13045

Protection of Children from Environmental Health Risks and Safety Risks (62 FR 19885, April 23, 1997), applies to any rule that: (1) is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of

the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

This rule is not subject to Executive Order 13045 because it does not involve decisions intended to mitigate environmental health or safety risks.

D. Executive Order 13132

Federalism (64 FR 43255, August 10, 1999) revokes and replaces Executive Orders 12612 (Federalism) and 12875 (Enhancing the Intergovernmental Partnership). Executive Order 13132 requires EPA to develop an accountable process to ensure "meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications." "Policies that have federalism implications" is defined in the Executive Order to include regulations that have "substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government." Under Executive Order 13132, EPA may not issue a regulation that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or EPA consults with State and local officials early in the process of developing the proposed regulation. EPA also may not issue a regulation that has federalism implications and that preempts State law unless the Agency consults with State and local officials early in the process of developing the proposed regulation.

This rule will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132, because it merely partially or limitedly approves or disapproves 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. Thus, the requirements of section 6 of the Executive Order do not apply to this rule.

E. Executive Order 13175

Executive Order 13175, entitled "Consultation and Coordination with

Indian Tribal Governments" (65 FR 67249, November 6, 2000), requires EPA to develop an accountable process to ensure "meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications." This final rule does not have tribal implications, as specified in Executive Order 13175. It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes. This action does not involve or impose any requirements that affect Indian Tribes. Thus, Executive Order 13175 does not apply to this rule.

F. Executive Order 13211

This rule is not subject to Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355, May 22, 2001) because it is not a significant regulatory action under Executive Order 12866.

G. Regulatory Flexibility

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

The partial and limited approval portions of this rule will not have a significant impact on a substantial number of small entities because SIP approvals under section 110 and subchapter I, part D of the Clean Air Act do not create any new requirements but simply approve requirements that the State is already imposing. Moreover, due to the nature of the Federal-State relationship under the Clean Air Act, preparation of flexibility analysis would constitute Federal inquiry into the economic reasonableness of state action. The Clean Air Act forbids EPA to base its actions concerning SIPs on such grounds. *Union Electric Co., v. U.S. EPA*, 427 U.S. 246, 255-66 (1976); 42 U.S.C. 7410(a)(2).

Moreover, EPA's partial and limited disapproval rule will not have a significant impact on a substantial number of small entities because the partial and limited disapproval action affects only seven industrial sources of air pollution in Billings/Laurel, Montana: Cenex Harvest Cooperatives, Conoco, Inc., ExxonMobil Company,

USA, Montana Power Company, Montana Sulphur & Chemical Company, and Yellowstone Energy Limited Partnership. Only a limited number of sources are impacted by this action. Furthermore, as explained in this action, the submission does not meet the requirements of the Clean Air Act and EPA cannot approve the submission. The partial and limited disapproval will not affect any existing State requirements applicable to the entities. Federal disapproval of a State submittal does not affect its State enforceability. Therefore, I certify that this action will not have a significant economic impact on a substantial number of small entities.

H. Unfunded Mandates

Under sections 202 of the Unfunded Mandates Reform Act of 1995 ("Unfunded Mandates Act"), signed into law on March 22, 1995, EPA must prepare a budgetary impact statement to accompany any proposed or final rule that includes a Federal mandate that may result in estimated costs to State, local, or tribal governments in the aggregate; or to the private sector, of \$100 million or more. Under section 205, EPA must select the most cost-effective and least burdensome alternative that achieves the objectives of the rule and is consistent with statutory requirements. Section 203 requires EPA to establish a plan for informing and advising any small governments that may be significantly or uniquely impacted by the rule.

EPA has determined that the approval and disapproval actions promulgated do not include a Federal mandate that may result in estimated costs of \$100 million or more to either State, local, or tribal governments in the aggregate, or to the private sector. This Federal action partially and limitedly approves and disapproves pre-existing requirements under State or local law, and imposes no new requirements. Accordingly, no additional costs to State, local, or tribal governments, or to the private sector, result from this action.

I. Submission to Congress and the Comptroller General

The Congressional Review Act, 5 U.S.C. section 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. Section 804, however, exempts from section 801 the following

types of rules: rules of particular applicability; rules relating to agency management or personnel; and rules of agency organization, procedure, or practice that do not substantially affect the rights or obligations of non-agency parties. 5 U.S.C. section 804(3). EPA is not required to submit a rule report regarding this action under section 801 because this is a rule of particular applicability.

J. National Technology Transfer and Advancement Act

Section 12 of the National Technology Transfer and Advancement Act (NTTAA) of 1995 requires Federal agencies to evaluate existing technical standards when developing a new regulation. To comply with NTTAA, EPA must consider and use "voluntary consensus standards" (VCS) if available and applicable when developing programs and policies unless doing so would be inconsistent with applicable law or otherwise impractical.

The EPA believes that VCS are inapplicable to this action. Today's action does not require the public to perform activities conducive to the use of VCS.

K. Petitions for Judicial Review

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 1, 2002. 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).)

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements, Sulfur oxides.

Dated: March 26, 2002.

Jack W. McGraw,

Acting Regional Administrator, Region 8.

40 CFR Part 52 is amended to read 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 BB—Montana

2. Section 52.1370 is amended by adding paragraph (c)(46) to read as follows:

§ 52.1370 Identification of plan.

* * * * *

(c) * * *

(46) The Governor of Montana submitted sulfur dioxide SIP revisions for Billings/Laurel on September 6, 1995, August 27, 1996, April 2, 1997 and July 29, 1998. On March 24, 1999, the Governor submitted a commitment to revise the SIP.

(i) Incorporation by Reference.

(A) Board Order issued on June 12, 1998, by the Montana Board of Environmental Review adopting and incorporating the stipulation of the Montana Department of Environmental Quality and Cenex Harvest Cooperatives, including the stipulation and exhibit A and attachments to exhibit A, except for the following:

(1) Paragraph 20 of the stipulation;

(2) Section 3(A)(1)(d) of exhibit A;

(3) The following phrase from section 3(B)(2) of exhibit A: "except that those sour water stripper overheads may be burned in the main crude heater (and exhausted through the main crude heater stack) or in the flare during periods when the FCC CO boiler is unable to burn the sour water stripper overheads from the "old" SWS, provided that such periods do not exceed 55 days per calendar year and 65 days for any two consecutive calendar years.";

(4) Section 4(B) of exhibit A;

(5) Section 4(D) of exhibit A; and

(6) Method #6A of attachment #2 of exhibit A.

(B) Board Order issued on June 12, 1998, by the Montana Board of Environmental Review adopting and incorporating the stipulation of the Montana Department of Environmental Quality and Conoco, Inc., including the stipulation and exhibit A and attachments to exhibit A, except for paragraph 20 of the stipulation.

(C) Board Order issued on June 12, 1998, by the Montana Board of Environmental Review adopting and incorporating the stipulation of the Montana Department of Environmental Quality and Exxon Company, USA, including the stipulation and exhibit A and attachments to exhibit A, except for the following:

(1) Paragraphs 1 and 22 of the stipulation;

(2) Section 2(A)(11)(d) of exhibit A;

(3) Sections 3(A)(1) and (2) of exhibit A;

(4) Sections 3(B)(1), (2) and (3) of exhibit A;

(5) The following phrase from section 3(E)(4) of exhibit A: "except that the sour water stripper overheads may be burned in the F-1 Crude Furnace (and exhausted through the F-2 Crude/Vacuum Heater stack) or in the flare during periods when the FCC CO Boiler is unable to burn the sour water stripper overheads, provided that: (a) such periods do not exceed 55 days per calendar year and 65 days for any two consecutive calendar years, and (b) during such periods the sour water stripper system is operating in a two tower configuration.";

(6) Sections 4(B), (C), and (E) of exhibit A;

(7) Section 6(B)(3) of exhibit A; and

(8) method #6A of attachment #2 of exhibit A.

(D) Board Order issued on June 12, 1998, by the Montana Board of Environmental Review adopting and incorporating the stipulation of the Montana Department of Environmental Quality and Montana Power Company, including the stipulation and exhibit A and attachments to exhibit A, except for paragraph 20 of the stipulation.

(E) Board Order issued on June 12, 1998, by the Montana Board of Environmental Review adopting and incorporating the stipulation of the Montana Department of Environmental Quality and Montana Sulphur & Chemical Company, including the stipulation and exhibit A and attachments to the exhibit A, except for paragraphs 1, 2 and 22 of the stipulation, and sections 3(A)(1)(a) and (b), 3(A)(3), 3(A)(4) and 6(B)(3) of exhibit A. (EPA is approving section 3(A)(2) of exhibit A for the limited purpose of strengthening the SIP. In 40 CFR 52.1384(d)(2), we are also disapproving section 3(A)(2) of exhibit A because section 3(A)(2) does not fully meet requirements of the Clean Air Act.)

(F) Board Order issued on June 12, 1998, by the Montana Board of Environmental Review adopting and incorporating the stipulation of the Montana Department of Environmental Quality and Western Sugar Company, including the stipulation and exhibit A and attachments to exhibit A, except for paragraph 20 of the stipulation.

(G) Board Order issued on June 12, 1998, by the Montana Board of Environmental Review adopting and incorporating the stipulation of the Montana Department of Environmental Quality and Yellowstone Energy Limited Partnership, including the stipulation and exhibit A and attachments to exhibit A, except for paragraph 20 of the stipulation and section 3(A)(1) through (3) of exhibit A.

(ii) Additional material.

(A) All portions of the September 6, 1995 Billings/Laurel SO2 SIP submittal other than the board orders, stipulations, exhibit A's and attachments to exhibit A's.

(B) All portions of the August 27, 1996 Billings/Laurel SO2 SIP submittal other than the board orders, stipulations, exhibit A's and attachments to exhibit A's.

(C) All portions of the April 2, 1997 Billings/Laurel SO2 SIP submittal other than the board orders, stipulations, exhibit A's and attachments to exhibit A's.

(D) All portions of the July 29, 1998 Billings/Laurel SO2 SIP submittal, other than the following: The board orders, stipulations, exhibit A's and attachments to exhibit A's, and any other documents or provisions mentioned in paragraph (c)(46)(i) of this section.

(E) April 28, 1997 letter from Mark Simonich, Director, Montana Department of Environmental Quality, to Richard R. Long, Director, Air Program, EPA Region VIII.

(F) January 30, 1998 letter from Mark Simonich, Director, Montana Department of Environmental Quality, to Richard R. Long, Director, Air Program, EPA Region VIII.

(G) August 11, 1998 letter from Mark Simonich, Director, Montana Department of Environmental Quality, to Kerrigan G. Clough, Assistant Regional Administrator, EPA Region VIII.

(H) September 3, 1998 letter from Mark Simonich, Director, Montana Department of Environmental Quality, to Richard R. Long, Director, Air Program, EPA Region VIII.

(I) March 24, 1999 commitment letter from Marc Racicot, Governor of Montana, to William Yellowtail, EPA Regional Administrator.

(J) May 20, 1999 letter from Mark Simonich, Director, Montana Department of Environmental Quality, to Richard R. Long, Director, Air and Radiation Program, EPA Region VIII.

3. In § 52.1384, add paragraph (d) to read as follows:

§ 52.1384 Emission control regulations.

* * * * *

(d) In § 52.1370(c)(46), we approved portions of the Billings/Laurel Sulfur Dioxide SIP and incorporated by reference several documents. This paragraph identifies those portions of the Billings/Laurel SO2 SIP that have been disapproved.

(1) In § 52.1370(c)(46)(i)(A) through (G), certain provisions of the documents incorporated by reference were excluded. The following provisions that were excluded by § 52.1370(c)(46)(i)(A) through (G) are disapproved. We cannot approve these provisions because they do not conform to the requirements of the Clean Air Act:

(i) The following paragraph and portions of sections of the stipulation and exhibit A between the Montana Department of Environmental Quality and Cenex Harvest Cooperatives adopted by Board Order issued on June 12, 1998, by the Montana Board of Environmental Review:

(A) Paragraph 20 of the stipulation;

(B) The following phrase from section 3(B)(2) of exhibit A: "or in the flare"; and

(C) The following phrases in section 4(D) of exhibit A: "or in the flare" and "or the flare."

(ii) Paragraph 20 of the stipulation between the Montana Department of Environmental Quality and Conoco, Inc., adopted by Board Order issued on June 12, 1998, by the Montana Board of Environmental Review.

(iii) The following paragraphs and portions of sections of the stipulation and exhibit A between the Montana Department of Environmental Quality and Exxon Company, USA, adopted by Board Order issued on June 12, 1998, by the Montana Board of Environmental Review:

(A) Paragraphs 1 and 22 of the stipulation;

(B) The following phrase of section 3(E)(4) of exhibit A: "or in the flare"; and

(C) The following phrases of section 4(E) of exhibit A: "or in the flare" and "or the flare."

(iv) Paragraph 20 of the stipulation between the Montana Department of Environmental Quality and Montana Power Company, adopted by Board Order issued on June 12, 1998, by Montana Board of Environmental Review.

(v) The following paragraphs and sections of the stipulation and exhibit A between the Montana Department of Environmental Quality and Montana Sulphur & Chemical Company, adopted by Board Order issued on June 12, 1998, by the Montana Board of Environmental Review: paragraphs 1, 2 and 22 of the stipulation; sections 3(A)(1)(a) and (b), 3(A)(3), and 3(A)(4) of exhibit A.

(vi) Paragraph 20 of the stipulation between the Montana Department of Environmental Quality and Western Sugar Company, adopted by Board Order issued on June 12, 1998, by the Montana Board of Environmental Review.

(vii) Paragraph 20 of the stipulation between the Montana Department of Environmental Quality and Yellowstone Energy Limited Partnership, adopted by Board Order issued on June 12, 1998, by the Montana Board of Environmental Review.

(2) Section 3(A)(2) of exhibit A of the stipulation between the Montana Department of Environmental Quality and Montana Sulphur & Chemical Company, adopted by Board Order issued on June 12, 1998, by the Montana Board of Environmental Review, which section 3(A)(2) we approved for the limited purpose of strengthening the SIP, is hereby disapproved. This limited disapproval does not prevent EPA, citizens, or the State from enforcing section 3(A)(2).

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