ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 51 and 52

[EPA–HQ–OAR–2006–0888; FRL–8320–7]

RIN 2060–AO02

Prevention of Significant Deterioration New Source Review: Refinement of Increment Modeling Procedures

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: Under the requirements of the Clean Air Act (Act), the New Source Review (NSR) program includes Prevention of Significant Deterioration (PSD) measures, which protect air quality in areas that currently have clean air. For some pollutants, the PSD program protects clean air through a system of ''increments.'' These increments specify the maximum extent to which the ambient concentration of these pollutants may be allowed to increase above the legally defined baseline concentration in an area with clean air. In this rulemaking, we propose to refine several aspects of the method that may be used to calculate an increase in concentration for increment purposes. These refinements are intended to clarify how States and regulated sources may calculate increases in concentrations for the purposes of determining compliance with the PSD increments.

DATES: *Comments.* Written comments must be received on or before August 6, 2007.

Public Hearing. If anyone contacts EPA requesting to speak at a public hearing by June 26, 2007, we will hold a public hearing approximately 30 days after publication in the **Federal Register**. Additional information about the hearing would be published in a subsequent **Federal Register** notice.

ADDRESSES: *Comments.* Submit your comments, identified by Docket ID No. EPA–HQ–OAR–2006–0888, by one of the following methods:

- *http://www.regulations.gov:* Follow the online instructions for submitting comments.
- *E-mail: a-and-r-docket@epa.gov.*
- *Fax:* (202) 566–1741.
- *Mail:* Environmental Protection Agency, EPA Docket Center (EPA/DC), Air and Radiation Docket, Mail Code 6102T, 1200 Pennsylvania Avenue, NW., Washington, DC 20460. Please include 2 copies.
- *Hand Delivery:* EPA Docket Center, (Air Docket), EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions. Direct your comments to Docket ID No. EPA–HQ–OAR–2006–0888. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at *http://www.regulations.gov*, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *http://www.regulations.gov* or e-mail. The *http://www.regulations.gov* Web site is an ''anonymous access'' system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through *http://www.regulations.gov*, your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional instructions on submitting comments, go to section I.B of the **SUPPLEMENTARY INFORMATION** section of this document.

Docket. All documents in the docket are listed in the *http://www.regulations.gov* index. Although listed in the index, some information is not publicly available, i.e., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly-available docket materials are available either electronically in *http://www.regulations.gov* or in hard copy at the Air Docket, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742.

FOR FURTHER INFORMATION CONTACT: Ms. Jessica Montanez, New Source Review Group, Air Quality Policy Division (C504–03), U.S. Environmental Protection Agency, Research Triangle Park, NC 27711, *telephone number:* (919) 541–3407; *fax number:* (919) 541–5509, or *electronic mail e-mail address: montanez.jessica@epa.gov.*

SUPPLEMENTARY INFORMATION: The information presented in this preamble is organized as follows:

I. General Information

A. Does this action apply to me?

Entities potentially affected by this proposed action include owners and operators of emission sources in all industry groups, as well as the EPA and State, local, and tribal governments that are delegated authority to implement these regulations. The majority of sources potentially affected are expected to be in the following groups:

Category	NAICS[a]	Industry group
Industry	221111, 221112, 221113, 221119, 221121, 221122.	Electric services.
	32411	Petroleum refining.
	325181, 32512, 325131, 325182, 211112, 325998, 331311, 325188.	Industrial inorganic chemicals.
	32511, 325132, 325192, 325188, 325193, 32512, 325199.	Industrial organic chemicals.
	32552, 32592, 32591, 325182, 32551	Miscellaneous chemical products.
	211112	Natural gas liquids.
	48621, 22121	Natural gas transport.
	32211, 322121, 322122, 32213	Pulp and paper mills.
	322121, 322122	Paper mills.
	336111, 336112, 336712, 336211, 336992, 336322, 336312, 33633, 33634, 33635, 336399, 336212, 336213.	Automobile manufacturing.
	325411, 325412, 325413, 325414	Pharmaceuticals.
Federal government	924110	Administration of Air and Water Resources and Solid Waste Management Programs.
State/local/tribal Government	924110	Administration of Air and Water Resources and Solid Waste Management Programs.

[a] North American Industry Classification System.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by this action. If you have any questions regarding the applicability of this action to a particular entity, contact the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

B. What should I consider as I prepare my comments for EPA?

1. Submitting Confidential Business Information (CBI)

Do not submit Confidential Business Information to EPA through *http://www.regulations.gov* or e-mail. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD ROM that you mail to EPA, mark the outside of the disk or CD ROM as CBI and then identify electronically within the disk or CD ROM the specific information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 Code of Federal Regulations (CFR) part 2.

2. Suggestions for Preparing Your Comments

When submitting comments, remember to:

- Identify the rulemaking by docket number and other identifying information (subject heading, **Federal Register** date and page number).
- Follow directions. The agency may ask you to respond to specific questions or organize comments by referencing a CFR part or section number.
- Explain why you agree or disagree; suggest alternatives and substitute language for your requested changes.
- Describe any assumptions and provide any technical information and/or data that you used.
- If you estimate potential costs or burdens, explain how you arrived at your estimate in sufficient detail to allow for it to be reproduced.
- Provide specific examples to illustrate your concerns, and suggest alternatives.
- Explain your views as clearly as possible, avoiding the use of profanity or personal threats.
- Make sure to submit your comments by the comment period deadline identified.

C. Where can I get a copy of this document and other related information?

In addition to being available in the docket, an electronic copy of this proposal will also be available on the World Wide Web. Following signature by the EPA Administrator, a copy of this notice will be posted in the regulations and standards section of our NSR (New Source Review) home page located at *http://www.epa.gov/nsr.*

D. How can I find information about a possible hearing?

Persons interested in presenting oral testimony should contact Ms. Pam Long, New Source Review Group, Air Quality Policy Division (C504–03), U.S. EPA, Research Triangle Park, NC 27711, telephone number (919) 541–0641 or e-mail *long.pam@epa.gov* at least 2 days in advance of the public hearing. Persons interested in attending the public hearing should also contact Ms. Long to verify the time, date, and location of the hearing. The public hearing will provide interested parties the opportunity to present data, views, or arguments concerning this action.

II. Background

A. What is the PSD program?

Part C of title I of the Act contains the requirements for a component of the major NSR program known as the PSD program. This program sets forth procedures for the preconstruction review and permitting of new and modified major stationary sources of air pollution locating in areas meeting the National Ambient Air Quality Standards or ''NAAQS'' (''attainment'' areas) and areas for which there is insufficient information to classify an area as either attainment or nonattainment (''unclassifiable'' areas).

The NSR provisions of the Act are a combination of air quality planning and air pollution control technology program requirements for new and modified stationary sources of air

pollution. In brief, section 109 of the Act requires us to promulgate primary NAAQS to protect public health and secondary NAAQS to protect public welfare. Once we have set these standards, States must develop, adopt, and submit to us for approval a State Implementation Plan (SIP) that contains emission limitations and other control measures to attain and maintain the NAAQS and to meet the requirements of section 110(a) of the Act. Each SIP is required to contain a preconstruction review program for the construction and modification of any stationary source of air pollution to assure that the NAAQS are achieved and maintained; to protect areas of clean air; to protect Air Quality Related Values (including visibility) in certain national parks, wilderness areas, and other natural areas of special concern; to assure that appropriate emissions controls are applied; to maximize opportunities for economic development consistent with the preservation of clean air resources; and to ensure that any decision to increase air pollution is made only after full public consideration of all the consequences of such a decision. Most States have SIP-approved major NSR programs; however there are some States that instead implement the Federal PSD program at 40 CFR 52.21 through delegation.[1]

The applicability of the PSD program to a particular source must be determined in advance of construction and is pollutant specific. Once a source is determined to be subject to PSD, among other requirements, it must undertake a series of analyses to demonstrate that it will use the best available control technology (BACT) and will not cause or contribute to a violation of any NAAQS or any maximum allowable ambient pollutant concentration increase (increment). In cases where the source's emissions may adversely affect an area classified as Class I, additional review is conducted to protect the increments and special attributes of such an area defined as ''air quality related values'' (AQRVs).

When the reviewing authority reaches a preliminary decision to authorize construction of a proposed new major source or major modification, it must provide notice of the preliminary decision and an opportunity for comment by the general public, industry, and other persons that may be affected by the major source or major modification. After considering and responding to the comments, the reviewing authority may issue a final determination on the construction permit in accordance with the PSD regulations.

B. What are PSD increment analyses?

1. Framework for Increment Analyses

Under section 165(a)(3) of the Act, a PSD permit applicant must demonstrate that emissions from the proposed construction and operation of a facility ''will not cause, or contribute to, air pollution in excess of any * * * maximum allowable increase or maximum allowable concentration for any pollutant* * *.'' The ''maximum allowable increase'' of an air pollutant that is allowed to occur above the applicable baseline concentration for that pollutant is known as the PSD increment. The maximum allowable concentration is the ceiling established by adding the PSD increment to the baseline concentration. By establishing the maximum allowable increase in a particular area, an increment defines ''significant deterioration.''

Increments have been established for three pollutants—Sulfur Dioxide (SO_2), Particulate Matter (PM), and Nitrogen Dioxide (NO_2)—and for a variety of averaging periods, which correspond to the averaging periods for the NAAQS for those pollutants. In addition, all attainment and unclassifiable areas are classified as Class I, Class II, or Class III, and different increment levels apply in each type of area. Class I areas include certain national parks, wilderness areas, and other natural areas of special concern; the smallest increments are specified for these areas. Nearly all other areas in the United States are currently classified as Class II, where higher increments are specified. States and Tribes have the authority to redesignate Class II areas to Class III (with still higher increments) to promote development, but, to date, none have chosen to do so. States and Tribes also may redesignate Class II areas to Class I to provide additional protection; some Tribes have done so. The increments are codified at 40 CFR 51.166(c) and 52.21(c). The current increment values are shown below in Table 1.

TABLE 1. CURRENT INCREMENT VALUES

Pollutant	Maximum allowable increase (micrograms per cubic meter)
Class I	
Particulate matter:	
PM–10, annual arithmetic mean	4
PM–10, 24-hr. maximum	8
Sulfur dioxide:	
Annual arithmetic mean	2
24-hr. maximum	5
3-hr. maximum	25
Nitrogen dioxide:	
Annual arithmetic mean	2.5
Class II	
Particulate matter:	
PM–10, annual arithmetic mean	17
PM–10, 24-hr. maximum	30

[1] Where a State does not have a SIP-approved program and chooses not to accept delegation of the Federal PSD program, EPA implements the PSD requirements as the reviewing authority within that jurisdiction. In addition, we implement the PSD program in Indian country until such time as a Tribe elects to adopt, and we approve, a Tribal Implementation Plan (TIP) that contains a PSD program that meets the requirements of the Act.

TABLE 1. CURRENT INCREMENT VALUES—Continued

Pollutant	Maximum allowable increase (micrograms per cubic meter)
Sulfur dioxide:	
Annual arithmetic mean	20
24-hr. maximum	91
3-hr. maximum	512
Nitrogen dioxide:	
Annual arithmetic mean	25
Class III	
Particulate matter:	
PM–10, annual arithmetic mean	34
PM–10, 24-hr. maximum	60
Sulfur dioxide:	
Annual arithmetic mean	40
24-hr. maximum	182
3-hr. maximum	700
Nitrogen dioxide:	
Annual arithmetic mean	50

For PSD baseline purposes, a baseline area for a particular pollutant emitted from a source includes the attainment or unclassifiable area in which the source is located as well as any other attainment or unclassifiable area in which the source's emissions of that pollutant are projected (by air quality modeling) to result in an ambient concentration increase of at least 1 μg/m^3 (annual average). *See,* e.g., 40 CFR 52.21(b)(15)(i). Once the baseline area is established, subsequent major sources undergoing PSD review in that area must address the fact that a portion of the available increment may already have been consumed by previous emissions increases.

Three dates related to the PSD baseline concept are important in calculating the amount of increment consumed by pollutant emissions from the major source undergoing PSD review and other applicable emissions increases and decreases in a particular baseline area. In general, the submittal date of the first complete PSD permit application in a particular area is the operative ''baseline date.'' [2] On or before the date of the first complete PSD application, most emissions are considered to be part of the baseline concentration. Most emissions increases that occur after the baseline date will be counted toward the amount of increment consumed. Similarly, emissions decreases after the baseline date expand the amount of increment that is available.

In actuality, there are two baseline dates that are related to the determination of how much increment is being consumed in a particular baseline area. These two dates, described below, are necessary to properly account for the emissions that are to be counted toward increment consumed in accordance with the statutory definition of ''baseline concentration'' in section 169(4) of the Act. The statutory definition provides that the baseline concentration of a pollutant for a particular baseline area is generally the air quality at the time of the first application for a PSD permit in the area. Consequently, any increases in actual emissions occurring after that date (with some possible exceptions that we will discuss later) would be considered to consume the applicable PSD increment. However, the statutory definition also provides that ''[E]missions * * * from any major emitting facility on which construction commenced after January 6, 1975 shall not be included in the baseline and shall be counted in pollutant concentrations established under this part.''

To make this distinction between the date when emissions changes in general (i.e., from both major and minor sources) count in the increment and the date when emissions resulting from the construction at a major stationary source count in the increment, we established the terms ''minor source baseline date'' and ''major source baseline date,'' respectively. *See* 40 CFR 51.166(b)(14) and 52.21(b)(14). Accordingly, the ''minor source baseline date'' is the date on which the first complete application for a PSD permit is filed in a particular area. Any change in actual emissions after that date counts in the PSD increment for that area. The ''major source baseline date'' is thus named because it is the date after which actual emissions associated with construction at a major stationary source affect the available PSD increment. In accordance with the statutory definition of ''baseline concentration,'' the PSD regulations define a fixed date to represent the major source baseline date for each pollutant for which an increment exists. Congress defined the major source baseline date for the statutory increments for PM and SO_2 as January 6, 1975. For the NO_2 increments, which we promulgated in 1988 under our authority to establish an increment system under section 166(a) of the Act, the major source baseline date was selected as February 8, 1988—the date on which we proposed increments for NO_2.

Finally, the PSD regulations set out the third date that is relevant to the PSD baseline concept. These regulations provide that the earliest date on which the minor source baseline date can be established is the date immediately following the ''trigger date'' for the pollutant-specific increment. *See,* e.g., 40 CFR 52.21(b)(14)(ii). For PM and SO_2, Congress defined the applicable trigger date as August 7, 1977—the date of the 1977 amendments to the Act

[2] Baseline dates are pollutant specific. That is, a complete PSD application establishes the baseline date only for those regulated NSR pollutants that are projected to be emitted in significant amounts (as defined in the regulations) by the applicant's new source or modification. Thus, an area may have different baseline dates for different pollutants.

when the original statutory increments were established by Congress. For NO_2, we selected the trigger date as February 8, 1988—the date on which we proposed increments for NO_2. *See* 53 FR 40656, 40658; October 17, 1988.

Under this approach, the baseline concentration is not actually established for a PSD baseline area until after the ''minor source baseline date'' is established by the submission of the first PSD permit application for a source whose emissions would affect a given baseline area. Although major source emissions may consume increment prior to this date, they are not factored into the calculation until the minor source baseline date is triggered.

Once the minor source baseline date associated with the first proposed new major stationary source or major modification in an area is established, the new emissions from that source consume a portion of the increment in that area, as do any subsequent emissions increases that occur from any source in the area. When the maximum pollutant concentration increase defined by the increment has been reached, additional PSD permits cannot be issued until sufficient amounts of the increment are ''freed up'' via emissions reductions that may occur voluntarily, e.g., via source shutdowns, or via control requirements imposed by the reviewing authority. Moreover, the air quality in a region cannot deteriorate to a level in excess of the applicable NAAQS, even if all the increment has not been consumed. Therefore, new or modified sources located in areas where the air pollutant concentration is near the level allowed by the NAAQS may not have full use of the amount of pollutant concentration increase allowed by the increment.

2. General Approach to Increment Analyses

The EPA and the States have generally used an emissions inventory and modeling approach to identify the degree to which an increment has been consumed or will be consumed by major source construction. Ambient monitoring has not been used to establish baseline concentrations or to evaluate increment consumption because ambient measurements reflect emissions from all sources, including those that should be excluded from the measurements. We have not necessarily required the identification of a specific baseline concentration but rather have focused on measuring the change in concentration from the legally established baseline date to the time of the analysis. For example, in the preamble to the 1978 PSD regulation (43 FR 26388, 26400; June 19, 1978), we stated the following:

> The regulations promulgated today no longer suggest that the baseline concentration be formally established. The Administrator feels that increment consumption can be best tracked by tallying changes in emissions levels of sources contributing to the baseline concentration and increases in emissions due to new sources. Data to establish baseline air quality in an absolute sense would be needed only if increment consumption were to be tracked using ambient measurements. Thus, to implement the air quality increment approach, the reviewing authority needs to verify that all changes from baseline emissions rates (decreases or increases as appropriate) in conjunction with the increased emissions associated with approved new source construction will not violate an applicable increment * * *.

This method has made it easier to comply with the statutory provisions (discussed below in section II.D of this preamble) excluding certain increases in emissions at major sources from the baseline concentration and allowing other emissions to be excluded from increment consumption.

Even with that said, we believe that it would also be acceptable and consistent with the Act for a State to use an approach of establishing an actual baseline concentration using an initial baseline emissions inventory. The State could then calculate the consumed increment by revising the inventory to include the relevant emissions increases and decreases as discussed above.

3. Agency Guidance and Specific Approaches Used in Practice

Over time, the Agency developed some recommended approaches that reviewing authorities could use to determine whether changes in emissions rates and increases in emission associated with new construction since the baseline date have or have not increased concentrations above the increments. Our recommendations have generally been described in modeling guidelines and guidance documents, while the PSD regulations in 40 CFR 51.166 and 52.21 contained only a few basic requirements for the increment analysis.

Some of our recommendations for the increment analysis have been included in the ''Guideline on Air Quality Models,'' which is located in appendix W to 40 CFR part 51. Appendix W provides modeling guidelines for sources and reviewing authorities under a variety of Clean Air Act programs. The PSD regulations cite appendix W and state that all PSD air quality modeling should be based on the ''applicable models, data bases, and other requirements'' specified there. *See* 40 CFR 51.166(l) and 52.21(l). Although appendix W is incorporated by reference in the PSD regulations, we have continued to refer to this as a ''guideline'' and used language in the guideline to indicate that it does not mandate specific procedures in all cases. *See,* In re: Prairie State Generating Company, PSD Permit Appeal No. 05–05, slip. op. at 132 (EAB August 24, 2006) (''Appendix W is replete with references to 'recommendations,' 'guidelines,' and reviewing authority discretion.'') It is also important to keep in mind that appendix W provides guidelines for other types of regulatory applications, not just PSD increment analyses. As a result, not all the recommendations included in appendix W are applicable to an analysis of increment consumption under the PSD program. Care must be taken to evaluate whether certain recommendations are appropriate for the particular circumstances of each increment analysis.

We also included some suggestions for the increment analysis in the 1990 draft ''New Source Review Workshop Manual'' (draft NSR Manual).[3] This draft document addressed many aspects of PSD permitting, including the increment analyses. However, we made clear on the very first page that this manual was not intended to establish binding regulatory requirements. Draft NSR Manual at 1 (Preface). In addition, we never finalized the 1990 draft of the NSR Manual and accordingly never intended for the manual itself to establish final EPA policies or interpretations of our NSR regulations. Nevertheless, many people have looked to this document for guidance and have sometimes improperly construed the draft NSR Manual to contain requirements that must be followed.

The EPA's Environmental Appeals Board (''Board'') has sometimes referenced the draft NSR Manual as a reflection of our thinking on certain PSD issues, but the Board has been clear that the draft NSR Manual is not a binding Agency regulation. *See,* In re: Indeck-Elwood, LLC, PSD Permit Appeal No. 03–04, slip. op. at 10 n. 13 (EAB Sept. 27, 2006); In re: Prairie State Generating Company, PSD Permit Appeal No. 05–05, slip. op. at 7 n. 7 (EAB Aug 24, 2006). In these and other cases, the Board also considered briefs filed on behalf of the Office of Air and Radiation that provided more current information on the thinking of the EPA headquarters program office on specific PSD issues

[3] This document is often referred to as the ''Puzzle Book'' due to the depiction of jigsaw puzzle pieces on its cover.

arising in particular cases. Thus, the Board has looked to the draft NSR Manual as one resource to consider in developing Agency positions through case-by-case adjudications, while recognizing that the draft NSR Manual does not itself contain binding requirements.

Other non-binding EPA guidance letters or memoranda that have addressed increment consumption analyses are discussed in more detail below in the context of discussion on specific issues.

Based largely on prior EPA guidance, the approach that has generally been used in States and EPA Regional Offices for increment analyses has involved the following four steps:

1. Determine the 1 μg/m^3 ''significant impact area'' for the particular pollutant for which the new major source or major modification is undergoing PSD review. (If the source is subject to an increment analysis for more than one pollutant, each analysis is carried out independently).

2. Identify the other sources in the vicinity of the new or modified source whose emissions affect the significant impact area.

3. Estimate the emissions from those sources that consume increment.

4. Model the change in emissions to get a concentration change, and compare that concentration change to the applicable increment.

The actual increment analysis that a proposed new or modified source undergoing PSD review must complete will depend on the area impacted by the source's new emissions.

We have provided approved air quality models and guidelines for sources to use to project the air quality impact of each pollutant (over each averaging period) for which an increment analysis must be done. In addition, we established significant impact levels for each pollutant under the nonattainment major NSR program that have also been used under the PSD program to identify levels below which the source's modeled impact is regarded as *de minimis*. *See* 40 CFR 51.165(b) and part 51, appendix S, section III.A.[4] In the event that a source's modeled impacts of a particular pollutant are below the applicable significant impact level at all ambient air locations modeled, i.e., *de minimis* everywhere, EPA policy provides that no further modeling analysis is required for that pollutant. Our policy has been that when a preliminary screening analysis based on the significant impact level is sufficient to demonstrate that the source's emissions will not cause or contribute to a violation of the increment, there is no need for a full impacts analysis involving a cumulative evaluation of the emissions from the proposed source and other sources affecting the area.

Within the impact area of a source that does have a significant impact, increment consumption is calculated using the source's proposed emissions increase, along with other emissions increases or decreases of the particular pollutant from other sources that would consume increment and which have occurred since the minor source baseline date established for that area. (For major sources, emissions increases or decreases resulting from construction as defined at 40 CFR 51.166(b)(8) and 40 CFR 52.21(b)(8) that have occurred since the major source baseline date consume or expand increment). Thus, an emissions inventory of sources whose emissions consume or expand the available increment in the area must be compiled. The inventory includes not only sources located directly in the impact area, but sources outside the impact area that affect the air quality within the impact area. Section IV.A.1 of this preamble discusses the types of sources that are to be included in the emissions inventory for increment analyses.

The inventory of emissions includes emissions from increment-affecting sources at two separate time periods—the baseline date and the current period of time. For each source that was in existence on the relevant baseline date (major source or minor source), the inventory includes the source's actual emissions on the baseline date and its current actual emissions. The change in emissions over these time periods represents the emissions that consume increment (or, if emissions have gone down, expand the available increment). For sources constructed since the relevant baseline date, all their current actual emissions consume increment and are included in the inventory.

An emissions inventory must be prepared for each averaging period for which an increment has been specified for the pollutant under review. In many cases, direct emissions data are not available for some or all averaging periods, and actual emissions must be estimated. This can be particularly challenging for existing sources where the baseline emissions must be determined and the baseline date is well in the past. The approach generally used per EPA guidance has been to base the annual emissions inventory on the actual measured emissions or actual hours of operation, fuel usage, raw materials used, etc., while basing the emissions inventory for shorter averaging periods on the maximum emissions over each averaging period as determined from available data (again, emission measurements, operating hours, fuel or materials consumption, etc.).

When the inventory of emissions has been compiled, computer modeling is used to determine the change in ambient concentration that will result from these emissions when combined with the proposed emissions increase from the new major source or major modification that is undergoing PSD review. The modeling has generally been guided by the ''Guideline on Air Quality Models'' (40 CFR part 51, appendix W), which includes provisions on air quality models and the meteorological data input into these models.

Two possible approaches have been used to predict the change in air pollutant concentration using models. One approach is to make a single model run after calculating the difference in emissions from the baseline date to the current period of time. An alternative approach is to make two model runs (one based on an inventory of baseline emissions and the second based on an inventory of current actual emissions) and calculate the difference between them.

The model output (expressed as a change in concentration) for each relevant averaging period is then compared to the corresponding allowable PSD increment. If the model results indicate that the increment(s) will not be exceeded, the reviewing authority may issue a PSD permit to the source. Except as discussed below, if the modeling shows that the source would cause or contribute to a violation of a PSD increment,[5] the reviewing authority

[4] The cited regulations actually apply to sources located in a PSD area, which must demonstrate that they will not cause or contribute to a violation of the NAAQS in an adjacent nonattainment area. This demonstration may be made by showing that the emissions from the PSD source alone are below the significant impact levels set forth in 40 CFR 51.165(b)(2). Based on EPA interpretations and guidance, these significant impact levels have also been widely used in the PSD program to define the extent of the impact area where an increment analysis must be performed. We proposed to codify these significant impact levels for use in the PSD program in 1996 as part of a comprehensive proposal to revise the major NSR regulations. *See* 61 FR 38250, 38325, July 23, 1996. We have not yet taken final action on this proposal.

[5] The proposed source is deemed to ''cause or contribute to'' an increment violation if the modeling shows that the impact attributable to the

Continued

may not issue the permit. The source may revise its permit application to reduce its proposed emissions, or it may mitigate the impact of its emissions through obtaining offsetting emission reductions from other sources in the emissions inventory.

If the modeling shows only an increment violation in a Class I area, the source has the opportunity to apply for a ''variance'' from the Federal Land Manager (FLM) that has responsibility for that Class I area. If the source successfully demonstrates to the FLM that emissions from the source will not have an adverse effect on the AQRVs of the Class I area, and to the reviewing authority that the emissions will not violate a set of higher increment levels specified in the Act (generally equal to the Class II increments), the reviewing authority may issue a PSD permit to the source. The source may further appeal to the Governor and the President in certain situations. These variances are discussed in greater detail in section IV.A.2 of this preamble.

C. Why do we need to refine the method for analyzing increment consumption?

We have never adopted detailed regulations establishing a specific methodology that sources and reviewing authorities must use to calculate an increase in concentrations for purposes of determining compliance with the PSD increments. Instead, increment analyses have been conducted by States and EPA Regional Offices based on the guidelines and guidance discussed in the previous section. In the absence of definitive requirements, sources and reviewing authorities have attempted to apply the available guidance to a wide range of situations. Differing interpretations and approaches have resulted, along with controversy over how binding the guidelines and guidance are on reviewing authorities and who (EPA or the reviewing authorities) has the ultimate discretion to determine which approaches are reasonable for a specific increment analysis. With this proposal, we intend to provide greater clarity on several issues.

One push for greater clarity has come from the Western States Air Resources Council (WESTAR) PSD Reform Workgroup, with participants from Western States, the U.S. National Park Service, U.S. Fish and Wildlife Service, U.S. Forest Service, and the U.S. Bureau of Land Management and consultation by EPA. The workgroup was formed in early 2004 to develop recommendations to improve the effectiveness of the PSD program. The goal of the WESTAR effort was to propose changes to the PSD program that would result in a more practical program, significantly reducing constraints in the current program that they viewed as limiting State and local agencies' abilities to address cumulative incremental consumption and Class I AQRV analysis and protection, some of which were identified in a letter to EPA.[6] While the purpose of today's notice is focused on refining increment analysis procedures, we are considering broader changes to the program as a separate rulemaking to address additional concerns that WESTAR and others have raised.[7]

A major point raised by WESTAR is that States need to consult early and often in order to agree in advance on modeling protocols to enable consistency between the States in performing the analyses and to ensure equity in application of the analysis. WESTAR further recommended that we take steps to ensure that EPA Regional Offices, in partnership with States and FLMs, operate consistently among themselves in inter-jurisdictional contexts and develop data and methods that will better enable inter-jurisdictional analysis. WESTAR stressed that a balance is needed between providing States with case-by-case, cross-jurisdictional PSD increment analysis flexibility and providing the national or regional standardization necessary to ensure equity among States, simplify cross-jurisdictional analysis, and facilitate coordination with FLMs. The WESTAR report also noted a lack of clarity and sometimes narrow interpretations of the definition of actual emissions used for purposes of calculating point source emissions for inclusion in emissions inventories for PSD analyses. All of the WESTAR workgroup representatives agreed that it is desirable to bring greater clarity and consistency to approaches for conducting refined analyses, particularly related to approaches for calculating point source emissions. Today's notice is a step toward achieving that balance between case-by-case flexibility and inter-jurisdictional consistency.

D. What are the Clean Air Act requirements related to increments?

The PSD increments are established under sections 163 and 166 of the Act. In section 163 of the Act, Congress adopted specific numerical increments for particulate matter and sulfur dioxide in each of the three classes of PSD baseline areas (i.e., Class I, II, and III, as described above in section II.B.1). In 1990, Congress created section 166(f) of the Act which authorized us to substitute increments based on the PM_{10} indicator for the original particulate matter increments contained in section 163. Consistent with this provision, we substituted PM_{10} increments for the increments based on total suspended particulate matter in a 1993 rulemaking (58 FR 51622, June 3, 1993). In section 166(a) of the Act, Congress directed and authorized EPA to promulgate additional increments for nitrogen oxides and other pollutants. We promulgated increments for NO_2 in 1988 and reaffirmed those increments in a 2005 rulemaking (53 FR 40656, Oct. 17, 1988; 70 FR 59582, Oct. 12, 2005).

The Act does not directly specify how to determine an increase in concentrations for purposes of determining compliance with the PSD increments. Section 163(b) of the Act provides that ''the maximum allowable increase in concentrations of sulfur dioxide and particulate matter over baseline concentration of such pollutants shall not exceed'' specified amounts for each pollutant. *See* CAA sections 163(b)(1)–(3). The Act does not define an ''increase in concentrations'' for purposes of section 163. Likewise, section 165(a)(3) prohibits permitting a source that causes or contributes to ''air pollution in excess of any maximum allowable increase or maximum allowable concentrations,'' but does not specify how EPA is to determine that air pollution would exceed the allowable increase or concentration. Section 166 of the Act directs EPA to promulgate pollutant-specific PSD regulations which contain ''specific numerical measures against which permit applications may be evaluated'' and indicates that such measures ''may contain air quality increments.'' *See* CAA sections 166(a), (c), (d). However, there is no further guidance in section 166 concerning the method to be used to measure an increase in air pollutant concentrations for purposes of evaluation against the PSD increments.

We have found some guidance in the Act in the definition of ''baseline concentration,'' which we interpret to support our view that an increase in concentration for increment purposes

source at the time and place of the violation is greater than the relevant significant impact level.

[6] ''Recommendations for Improving the Prevention of Significant Deterioration Program.'' Stuart A. Clark, President, Western States Air Resources Council, May 19, 2005.

[7] In addition to WESTAR's recommendations, we received comments from the Northeast States for Coordinated Air Use Management (NESCAUM) on the WESTAR recommendations in a letter and attachment from Arthur N. Marin, Executive Director of NESCAUM, October 18, 2005.

should be determined on the basis of actual emissions. Section 169(4) of the Act defines ''baseline concentration'' as ''the ambient concentration levels which exist at the time of the permit application.'' The opinion of the United States Court of Appeals for the District of Columbia Circuit in *Alabama Power* v. *Costle* interpreted section 169(4) in a manner that supports establishing the PSD baseline concentration using actual emissions. 636 F.2d 323, 375–381 (D.C. Cir. 1980). Since emissions that consume increment are not included in the baseline, we have long recognized that an increase in concentration (the consumption of increment) is directly related to baseline concentration (45 FR 52676, 52718, Aug. 7, 1980). In light of these considerations, we reached the following conclusion:

> Since the Alabama Power decision and the statute both provide that actual air quality be used to determine baseline concentrations, but provide no guidance on increment consumption calculations, EPA has concluded that the most reasonable approach, consistent with the statute, is to use actual source emissions, to the extent possible, to calculate increment consumption or expansion.

See 45 FR 52676, 52718 (Aug. 7, 1980). We expressly incorporated the definition of ''actual emissions'' into the regulatory definition of ''baseline concentration'' (40 CFR 51.166(b)(13) and 52.21(b)(13)). In this definition of ''baseline concentration,'' the term ''actual emissions'' is referenced both in the provision describing how to determine the baseline concentration and in the provision identifying emissions that affect the maximum allowable increases (the increment). *See,* e.g., 40 CFR 51.166(b)(13)(ii). The term ''actual emissions'' is itself defined in 40 CFR 51.166(b)(21) and 52.21(b)(21).

The Act also provides some direction concerning the increment consumption analysis by identifying particular sources whose emissions are counted against the maximum allowable increases and listing categories of sources whose emissions may be excluded from the increment consumption analysis. In the statutory definition of ''baseline concentration,'' section 169(4) of the Act specifies that ''[e]missions of sulfur oxides and particulate matter from any major emitting facility on which construction commenced after January 6, 1975, shall not be included in the baseline and shall be counted against the maximum allowable increases in pollutant concentrations established under this part.'' This provision makes clear that emissions of these pollutants from new or modified major sources that commence construction between 1975 and the baseline date for a given area shall be counted against the increments and thus are considered to ''consume'' increment. In addition, section 163(c) authorizes States to exclude certain pollution concentrations from the increment consumption analysis. This provision authorizes States to ''promulgate rules providing that for purposes of determining compliance with the maximum allowable increases in ambient concentrations of an air pollutant, the following concentrations of such pollutants shall not be taken into account.'' The concentrations identified are those attributable to (1) fuel switches required under other laws (15 U.S.C. 792 or 16 U.S.C. 791a); (2) construction or other temporary emission-related activities; and (3) new sources outside the United States. The PSD regulations reflect these provisions of sections 163(c) and 169(4) of the Act.

The existing PSD regulations reflect these specific requirements of the Act. As discussed earlier, we implemented the last sentence of section 169(4) by establishing two separate baseline dates—the major source baseline date and the minor source baseline date. *See* 40 CFR 51.166(b)(14) and 52.21(b)(14). We implemented section 163(c) of the Act by promulgating 40 CFR 51.166(f), which is discussed further below.

Within the boundaries described above, we read the Act to provide EPA with fairly broad discretion to establish regulations concerning the approach to be used to measure an increase in concentration for purposes of assessing consumption of PSD increments. Since the Act does not define ''increase in concentration'' for increment purposes, we interpret the Act to grant EPA discretion to develop a method for measuring this increase, so long as that method is reasonable and consistent with the limited requirements described above. The absence of specific direction in the Act concerning how to calculate an increase in concentration for increment purposes is similar to the gap in the Act concerning how to calculate an increase in emissions for purposes of identifying a major modification. With respect to the latter issue, the DC Circuit has recently observed that ''In enacting the NSR program, Congress did not specify how to calculate 'increases' in emission, leaving EPA to fill that gap while balancing the economic and environmental goals of the statute.'' *New York* v. *EPA*, 413 F.3d 3, 27 (Jan. 25, 2005). We believe Congress intended a similar result with respect to ''increases'' in concentration under the increment provisions of the PSD side of the NSR program. As observed by the court in *Alabama Power*, ''Congress expected EPA to use 'administrative good sense' in establishing the baseline and calculating exceedances.'' *See Alabama Power*, 636 F.2d at 380. In this rulemaking, we propose to exercise our rulemaking discretion on this topic and provide additional guidance to States and regulated sources on how to calculate increases in concentrations for purposes of determining compliance with the PSD increments.

III. Summary of This Proposed Action

This action proposes clarifications in eight areas related to increment analyses. They are summarized below:

- Effect of the 1990 draft ''New Source Review Workshop Manual.'' Discussed in detail in section IV; no regulatory revisions.
- Treatment of sources that have previously received a Class I area FLM variance in subsequent increment consumption modeling. Discussed in detail in section V.A; regulatory revisions in 40 CFR 51.166(f)(2) and 52.21(f)(2).
- Data used to estimate emissions. Discussed in detail in section V.B.1; regulatory revisions in 40 CFR 51.166(f)(1) and 52.21(f)(1).
- Time period of emissions used to model pollutant concentrations. Discussed in detail in section V.B.2; regulatory revisions in 40 CFR 51.166(f)(1) and 52.21(f)(1).
- Actual emissions rates used to model short-term increment compliance. Discussed in detail in section V.B.3; regulatory revisions in 40 CFR 51.166(f)(1) and 52.21(f)(1).
- Meteorological data and processing. Discussed in detail in section V.C.1; no regulatory revisions.
- Years of meteorological data. Discussed in detail in section V.C.2; no regulatory revisions.
- Documentation and data and software availability. Discussed in detail in section V.D; no regulatory revisions.

IV. Proposed Clarifications Regarding the Effect of the Draft New Source Review Workshop Manual

To avoid future misunderstandings concerning the effect of the draft 1990 New Source Review Workshop Manual (draft NSR Manual), we propose in this action to make clear that the draft NSR Manual is not a binding regulation and does not by itself establish final EPA policy or authoritative interpretations of EPA regulations under the New Source Review Program. As discussed above, because this document was never finalized, we never intended for the manual to establish final agency policy

or authoritative interpretations of EPA's NSR regulations. Furthermore, in many areas the positions reflected in the document have become outdated and superseded by statutory amendments, rulemakings, additional guidance memoranda, and adjudications by the Administrator and the EPA Environmental Appeals Board.

Notwithstanding this proposed clarification concerning the effect of the draft NSR Manual, we recognize that some of the views expressed in the draft NSR Manual may have been promulgated in EPA regulations or adopted by the Agency as final policy statements or interpretations in other actions taken before or after the release of the draft NSR Manual in 1990. On some topics, the draft NSR Manual compiled pre-existing EPA policy and interpretations, but on other matters the document expressed proposed policies or interpretations that were never finalized by the Agency. To the extent EPA subsequently or previously adopted a view expressed in the draft NSR Manual through other action that was clearly final, those positions may have achieved the status of final policies or interpretations, but positions that are only expressed in the draft NSR Manual should not be considered to be a final EPA policy or interpretation.

With respect to the increment analysis that is the subject of this rulemaking action, we are proposing to establish regulations that supersede many of the recommended approaches for conducting the increments analysis set forth in the draft NSR Manual and other EPA guidance documents, as discussed in more detail below. However, we are not proposing in this action to supersede or change specific policies or interpretations not discussed in this notice that EPA may have adopted in final form prior to or after the development of the draft NSR Manual.

With respect to the draft NSR Manual as a whole, we are only proposing to clarify that the 1990 draft of the NSR Manual does not by itself establish final policies or interpretations of the EPA. To the extent such policies or interpretations are reflected in other action or documents that were issued in a final form (such as rulemakings, guidance memorandum, or adjudications by the Administrator or the Environmental Appeals Board), EPA will continue to follow them unless the Agency has otherwise indicated that it no longer adheres to such policies or interpretations. For example, it remains EPA's policy to use the five-step, top-down process to satisfy the Best Available Control Technology (''BACT'') requirements when PSD permits are issued by EPA and delegated permitting authorities, and we continue to interpret the BACT requirement in the Clean Air Act and EPA regulations to be satisfied when BACT is established using this process, as it has been described in decisions of the Environmental Appeals Board. However, notwithstanding this policy and the interpretations of the BACT requirement reflected in EPA adjudications, EPA has not established the top-down BACT process as a binding requirement through regulation.

We request comment on this proposal to clarify that the draft NSR Manual is not a binding regulation and does not independently reflect or establish a final statement of EPA policy or an authoritative interpretation of EPA regulations.

V. Proposed Refinements to Increment Modeling Procedures

A. What kind of emissions consume or expand the PSD increment?

1. What types of sources are included in increment consumption modeling?

In defining ''baseline concentration,'' the PSD regulations also spell out the emissions sources that must be included in an increment analysis. Specifically, in 40 CFR 51.166(b)(13)(ii) and 52.21(b)(13)(ii), the regulations indicate that the following emissions are not included in the baseline concentration, but instead affect the available increment:

- Actual emissions from any major stationary source on which construction commenced after the major source baseline date.
- Actual emissions increases and decreases at any stationary source occurring after the minor source baseline date.

Thus, the sources that affect available increment, and therefore must be included in an increment analysis are: (1) Major sources that have increased or decreased actual emissions after the major source baseline date as a result of construction of a new source, a physical or operational change to an existing source, or shutdown of an existing source; and (2) any source that has had an increase or decrease in actual emissions since the minor source baseline date. The latter includes major sources, minor sources, and area sources that have been constructed since the minor source baseline date (i.e., new sources) or have experienced a change in actual emissions since the minor source baseline date (i.e., existing sources that have been modified or have changed their capacity utilization or hours of operation).

For many years, we have interpreted the PSD regulations to require increases and decreases in mobile source emissions to be included in the increment consumption analysis. *See,* e.g., 53 FR 40656, 40662 (October 17, 1988). However, we understand that many States have not consistently accounted for mobile source emissions in their increment analyses. To make clear that mobile source emissions need to be included in an analysis of increment consumption, we are proposing to amend the reference to ''any stationary source'' in 40 CFR 51.166(b)(13)(ii)(*b*) and 52.21(b)(13)(ii)(*b*) of our regulations to make explicit that actual emissions increases or decreases that consume or expand increment are not limited solely to stationary source emissions.

Despite prior inconsistencies, EPA has generally not second-guessed state increment assessments after they are completed or PSD permits have been issued. Thus, to the extent a state has neglected to account for mobile source emissions in prior increment analysis, EPA does not intend for this technical amendment to require those states to revisit those increment assessments or previously-issued permits. These states should simply include mobile source emissions in their next permit review or periodic review of increment consumption and factor those results into future permitting decisions or planning strategies.

The existing regulations also specify that ''secondary emissions'' are to be included in an increment analysis. *See* 40 CFR 51.166(k) and 52.21(k). Secondary emissions are defined as emissions which occur as a result of the construction or operation of a major source or modification, but do not come from the major source itself. They include emissions from any offsite support facility which would not be constructed or increase emissions except as a result of the construction of the major source or modification that is undergoing PSD review. Secondary emissions must be specific, well defined, quantifiable, and impact the same general area as the major source or modification that is under review. *See* 40 CFR 51.166(b)(18) and 52.21(b)(18).

We have also codified an exemption to these general principles in 40 CFR 51.166(f) of the PSD regulations. This provision authorizes SIPs to exclude from increment consumption those sources in the four categories listed in section 163(c) of the Act. The regulations also allow States to exclude concentrations attributable to temporary increases in emissions from sources affected by SIP revisions approved by

EPA. *See* 40 CFR 51.166(f)(1)(v). When we promulgated increments for NO_2, 40 CFR 51.166(f) became applicable to the increments for that pollutant as well. Thus, emissions attributable to sources or actions listed in 40 CFR 51.166(f) may not consume increment if a State has promulgated regulations approved by EPA that exclude such emissions from the increment consumption analysis. We have not included a companion provision in 40 CFR 52.21 because we read section 163(c) of the Act to apply only to States with approved PSD programs in their State implementation plans.

2. How is a source with a Class I area Federal Land Manager variance treated in subsequent increment consumption modeling?

We propose to add a category of sources that may be excluded from the increment consumption analysis in a specialized circumstance described in the Clean Air Act. We propose to establish that sources that have been permitted based in part on a variance issued by a Federal Land Manager (FLM) for a Class I area may be excluded from the increment consumption analysis for the Class I increment in the area for which the variance was issued.

Background. Under section 165(d) of the Act, when a proposed source subject to permitting has the potential to adversely impact a Class I area, an additional review is required to assess whether the source will adversely impact Air Quality Related Values (AQRVs) in the Class I area. The AQRV review provisions of section 165(d) provide another layer of protection against significant deterioration in Class I areas on top of the protection provided by increments.[8] Although any area may be designated to be a Class I area, such areas are generally national parks and wilderness areas of a certain size that are required to be Class I areas under the Act. *See* section 162(a) of the Act.

The Act does not define AQRVs or identify specific AQRVs other than visibility. *See* section 165(d)(2)(B) of the Act. However, AQRVs are generally understood to encompass the purposes for which lands have been preserved, to the extent those purposes may be affected by air quality. In legislative history to the Act, AQRVs are described as follows:

> The term ''air quality related values'' of Federal lands designated as class I includes the fundamental purposes for which such lands have been established and preserved by the Congress and the responsible Federal agency. For example, under the 1916 Organic Act to establish the National Park Service (16 U.S.C. 1), the purpose of such national park lands ''is to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.''

See S. Rep. 95–127 at 36, reprinted at 3 LH at 1410. In 1996, we proposed to adopt the following definition of AQRV:

> Air quality related values means visibility or a scenic, cultural, physical, biological, ecological, or recreational resource that may be affected by a change in air quality, as defined by the Federal Land Manager for Federal lands, or by the applicable State or Indian Governing Body for nonfederal lands.

See 61 FR 38250, 38332, July 23, 1996. We have not yet taken final action to adopt this definition.

The Act provides that the FLM charged with responsibility for managing a Class I area has an ''affirmative responsibility'' to protect the AQRVs in the area. *See* section 165(d)(2)(B) of the Act. Section 165(d) establishes a procedure under which the FLM may object to or concur in the issuance of a PSD permit based on the impact, or lack thereof, that new emissions may have on any affected AQRV that the FLM has identified. If the proposed source's emissions do not cause or contribute to a violation of a Class I increment (satisfying the requirement in section 165(a)(3) of the Act), the FLM may nevertheless prevent issuance of the permit by demonstrating to the satisfaction of the reviewing authority that the source or modification will have an adverse impact on AQRVs. *See* section 165(d)(2)(C)(ii) of the Act. Conversely, if the proposed source will cause or contribute to a violation of a Class I increment, the reviewing authority may not issue the permit unless the owner or operator demonstrates to the satisfaction of the FLM that the emissions from the proposed facility will have no adverse impact on the AQRVs of the Class I area. *See* section 165(d)(2)(C)(iii) of the Act. Under this procedure, the compliance status of the increment determines whether the FLM or the permit applicant has the burden of satisfactorily demonstrating whether or not the proposed source's emissions would have an adverse impact on AQRVs.[9] The FLM has the burden of demonstrating an adverse impact when the Class I increment is not exceeded. However, if the proposed source causes or contributes to a violation of the Class I increment, the permit applicant must convince the FLM to certify that the proposed source will not have an adverse impact on AQRVs.

This certification by the FLM is known as a ''variance'' under 40 CFR 51.166(p) and 52.21(p) of the PSD regulations. The process for issuance of a variance was originally applied only in the context of the statutory increments for PM and SO_2 based on section 165(d) of the Act, but we have, by rulemaking, extended the AQRV review procedures set forth in §§ 51.166(p) and 52.21(p) to cover NO_2. *See* 70 FR 59583, October 12, 2005; 53 FR 40656, October 17, 1988.

In the case of the 24-hour and 3-hour increments for SO_2, the Act provides an additional process through which the permit applicant may request that the Governor of a State issue a variance or appeal to the President to issue the variance if the FLM does not concur with the Governor's conclusion. *See* section 165(d)(2)(D) of the Act. If the FLM does not initially issue a variance under section 165(d)(2)(C), the Governor may issue a variance subject to the concurrence of the FLM, if the Governor finds, after public notice and hearing, that a facility cannot be constructed because of a short-term increment for SO_2 and that the variance will not adversely affect AQRVs. *See* section 165(d)(2)(D)(i) of the Act; 40 CFR 51.166(p)(5) and 52.21(p)(6). If the FLM does not concur with the Governor's decision to issue the variance, the dispute is submitted to the President for resolution. The President may grant the variance if he finds that a variance is in the national interest. *See* section 165(d)(2)(D)(ii) of the Act; 40 CFR 51.166(p)(6) and 52.21(p)(7).

Under both of these variance provisions, the variance cannot issue unless the permit contains emissions limitations sufficient to prevent violations of alternative increments that are established for the specific permitting action due to the variance. In the case of an FLM variance issued under section 165(d)(2)(C), the alternative increments are equal to the Class II increments in most instances. In the unique case of the 3-hour increment for SO_2, the Act requires use of an increment of 325 $\mu g/m^3$ (a level between the Class I and Class II increments) for SO_2 for the 3-hour averaging period. *See* section 165(d)(2)(C)(iv) of the Act; 40

[8] ''A second test of protection is provided in specified Federal land areas (Class I areas), such as national parks and wilderness areas; these areas are also subjected to a review process based on the effect of pollution on the area's air quality related values.'' S. Rep. 95–127, at 17, 4 LH at 1401.

[9] ''The class I increment is a test for determining where the burden of proof lies and is an index of changes in air quality. It is not the final determinant for approval or disapproval of a permit application.'' S. Rep. 95–127 at 35.

CFR 51.166(p)(4) and 52.21(p)(5). We also applied this approach to NO_2 by adding a cap of 25 $\mu g/m^3$ (equal to the NO_2 Class II increment) to the regulations. *See* 53 FR 3704; *see* 40 CFR 51.166(p)(4) and 52.21(p)(5). Although the short-term Class II increments may ordinarily be violated one time per year, the Act suggests that when the Class II increment applies under the Class I variance provisions in section 165(d)(2)(C), no violations of the Class II increment are permissible. *See* section 163(a) of the Act.

In the case of a gubernatorial or presidential variance for the short term SO_2 increments, the Act establishes another set of alternative increments at a level between the Class I and Class II increments for the 24-hour and 3-hour averaging periods. *See* section 165(d)(2)(D)(iii) of the Act. This provision includes separate alternative increments for permitting actions receiving a variance in low and high terrain areas. *Id.* In addition to requiring emissions limitations sufficient to assure these alternative increments are not exceeded, this portion of the Act also specifies that the permit must ''assure that such emissions will not cause or contribute to concentrations which exceed the otherwise applicable maximum allowable increases for periods of exposure of 24 hours or less on more than 18 days during any annual period.'' *Id.* We interpret the ''otherwise applicable maximum allowable increases'' to describe the Class I increments and thus understand this provision to allow 18 exceedances of the Class I increment per year after a variance has been issued under section 165(d)(2)(D).

In contrast to section 165(d)(2)(D)(iii), the FLM variance provisions in section 165(d)(C)(iv) that refers primarily to the Class II increments does not discuss an ''otherwise applicable maximum allowable increase'' or identify an allowable number of days on which such an increment might be exceeded. This omission leaves some ambiguity concerning whether the Class I increment should continue to apply in the Class I area for which a variance has been issued by the FLM under section 165(d)(2)(C) based upon a certification that the emissions from a proposed facility will not have an adverse impact on AQRVs. Since Congress has not directly spoken to this issue, we propose to add provisions to the PSD regulations to clarify how a reviewing authority should account for these variances when evaluating compliance with the Class I increment when a source has previously been issued a variance.

Proposed Action. To address this issue, we propose to add a new provision in 40 CFR 51.166(f) stating that the emissions of any source that were permitted after receiving a Class I increment variance from an FLM need not be included in the consumption analysis for the Class I increment for the area for which the variance was issued under section 165(d)(2)(C) of the Act. However, we propose that the emissions of such source continue to be accounted for in the analysis of compliance with the alternative Class II increments that are applied in the Class I area after the issuance of a variance. As noted above, in the case of SO_2, the alternative increment is not the Class II increment but a level between the Class I and Class II increments.

We interpret section 165(d)(2)(C) of the Act to allow this additional exclusion, not contained in section 163(c) of the Act, from the increment consumption analysis for emissions that an FLM has considered and certified to not have an adverse impact on AQRVs. However, this is a narrow exclusion that applies only with respect to the Class I increment in those areas for which a variance has been issued. We do not read section 165(d)(2)(C) to authorize such emissions to be excluded from an analysis of compliance with the Class II increments (or the alternative 3-hour SO_2 increment).

In Class I areas, the key criterion for determining whether a permit may issue is the effect of a project on AQRVs. The Class I increment is important, but the terms of sections 165(d)(2)(C)(ii) and 165(d)(2)(C)(iii) make clear that AQRVs actually control whether a permit should be issued or not. As discussed above, the increment determines who has the burden of demonstrating the degree of impact on AQRVs, but ultimately the degree of impact on AQRVs is the controlling standard in such areas. Exceedances of the increment are allowed so long as the source can demonstrate to the satisfaction of the FLM that a source will not have an adverse impact on AQRVs. An exceedance of Class I increment creates a presumption that AQRVs within the affected impact area will also be adversely affected, but that presumption may be rebutted. Likewise, the absence of an increment exceedance creates a presumption that there is no adverse impact on AQRVs within the affected impact area, but that presumption may also be rebutted if the FLM provides evidence sufficient to convince the reviewing authority that emissions from a proposed source will have an adverse impact on AQRVs. Thus, based on the interplay of sections 165(d)(2)(C)(ii) and 165(d)(2)(C)(iii), we interpret the Act to establish AQRVs, rather than the Class I increment, as the controlling standard in Class I areas. AQRVs are always applicable in Class I areas, regardless of the status of the Class I increment.

However, AQRVs are the controlling benchmark only to the extent that AQRVs provide more protection than the Class II increments (or a lower figure in the case of the 3-hour averaging time for SO_2). Section 165(d)(2)(C)(iv) indicates that, although a permit may be issued where AQRVs are not adversely impacted, such permit must ensure that the Class II increments are not exceeded. We interpret this provision to mean that the Class II increment cannot ever be exceeded in a Class I area, notwithstanding the degree of impact on AQRVs. So, reading sections 165(d)(2)(C)(ii)-(iv) together, we interpret the Act to establish AQRVs and the Class II increments to be the air quality standards that ultimately determine whether a permit may be issued for a source potentially affecting a Class I area. The Class I increment serves to establish a presumption of harm or the absence of harm to AQRVs, but does not ultimately control whether a permit may be issued.

While it is clear that AQRVs and the Class II increments ultimately control whether a particular permit may be issued, the Act does not specify what role the Class I increment has to play on an ongoing basis after a variance has been issued. To obtain a variance, the applicant must rebut the presumption that AQRVs will be adversely impacted by an increase in concentrations in excess of the Class I increment. Once that presumption has been rebutted for a particular area, the Class I increment may no longer be representative of the degree of impact on AQRVs for that area. If the Class I increment has been exceeded but there is no adverse impact on AQRVs, this indicates that the Class I increment is not a reliable predictor of adverse impacts on AQRVs in a particular area.

Thus, the question arises as to whether the Class I increment should remain applicable in a Class I area after the issuance of a variance. Section 165(d)(2)(C) does not address this issue. Although section 165(d)(2)(D)(iii) says that the ''otherwise applicable'' increment may not be exceeded more than 18 days per year in the case of a gubernatorial or presidential variance, section 165(d)(2)(C)(iv) does not refer to any ''otherwise applicable'' increment in the context of an FLM variance. The other parts of section 165(d)(2)(C) also fail to address this issue.

One approach we have considered is to construe the silence in section 165(d)(2)(C) as an indication that Congress did not intend to permit violations of the Class I increment for any additional days beyond the one day per year allowed in the case of the 24-hour and 3-hour increments. Under this interpretation, a variance under section 165(d)(2)(C) would be considered only to be a variance from the ''cause or contribute'' standard in section 165(a)(3) of the Act for purposes of an individual permit application. An applicant would be relieved of the obligation to demonstrate that a proposed source does not cause or contribute to a violation of the Class I increment if the applicant can demonstrate that the source will not adversely affect AQRVs. However, under this view, the variance would not necessarily relieve the reviewing authority or State air quality planning agency from the obligation to ensure that the SIP contains measures to protect the Class I increment. The source might receive its permit based on the variance from section 165(a)(3) for a particular Class I area, but the State would remain obligated to comply with 40 CFR 51.166(a)(3) of the PSD regulations and take subsequent action to amend the SIP to correct the exceedance of the Class I increment caused by the source that received the variance.

The latter interpretation appears to be supported by a statement from the DC Circuit's opinion in *Alabama Power* v. *Costle*. In this decision, the Court upheld the language cited above (40 CFR 51.166(a)(3)) that requires a State to revise its SIP to correct a violation of the increment.[10] Some of the Petitioners in that case had argued that EPA could not require a State to remedy a Class I increment violation, because section 165(d) allowed a waiver of the Class I increment in certain circumstances. The court reconciled the variance provision and the language in § 51.166(a)(3) as follows:

> Industry petitioners also rely on those sections of the Act that provide for waiver provisions which, conceivably, could allow increments to be exceeded. The waiver has vitality and recognition in that facilities granted special consideration under these provisions are, in effect, treated as facilities operating in compliance with the provisions of the Act. But the totality of facilities in compliance, as a group, may be subject to measures necessary to cope with a condition of pollutants exceeding the PSD maximum.

See 636 F.2d at 363.

[10] At the time of that decision, this language was contained in § 51.24(a)(3) of EPA's regulations. *See* 636 F.2d at 361 n. 92.

We have previously acknowledged that this may be a permissible way to reconcile the FLM variance provision with the requirement in § 51.166(a)(3) to amend SIPs to remedy an increment exceedance. In correspondence sent to the State of North Dakota, the Director of EPA's Office of Air Quality Planning and Standards recommended the approach suggested by the *Alabama Power* opinion. The letter stated the following:

> In the case of a Class I increment violation, a source may be granted a variance under certain conditions. First, the source must demonstrate to the FLM, and the FLM certify to the State, that the source will not adversely impact any Class I AQRVs. Second, the State must revise its SIP to correct increment violations ([Act] Section 161 and 163, 40 CFR 51.166(a)(3)).

See Letter from John Seitz, EPA/OAQPS, to Francis Schwindt, North Dakota Dept. of Health (December 12, 2001). EPA Region 8 followed this recommendation in comments submitted to North Dakota in 2002. *See* EPA Comments on North Dakota Department of Health's Proposed Determination Regarding the Adequacy of the SIP to Protect PSD Increments for Sulfur Dioxide (May 24, 2002).

Since the time of these recommendations, we have evaluated this issue further and now recognize that there may be more than one permissible reading of the Act on this issue. The approach that we suggested in 2001 (amending the SIP to eliminate the Class I increment exceedance after the permit issues) would effectively require the source seeking the variance to obtain offsets from other sources affecting the Class I increment. If section 165(d)(2)(C) is read to require that a variance source obtain offsets, there would be no need for that proposed source to demonstrate that its emissions would not have an adverse impact on AQRVs. This would render the AQRV provisions in section 165(d)(2)(C) of the Act meaningless where the increment is exceeded because one would not need to consider AQRVs and obtain the variance in the first place if offsetting emissions reductions were obtained. Furthermore, where a single source consumes the entire increment but does not adversely impact AQRVs, the issuance of a variance would have no effect because a SIP could not be tightened to obtain reductions from any other source to remedy the increment exceedance. In this circumstance the State would have no choice but to tighten or revoke the permit of the variance source immediately after the permit was issued. We do not believe Congress intended such a result. In light of these considerations, we are proposing to refine our interpretation of section 165(d)(2)(C) with respect to the role of the Class I increment after a variance has been issued under section 165(d)(2)(C).

Another possible approach would be to read section 165(d)(2)(C)(iv) to call for the Class II increments to substitute for the Class I increment on an ongoing basis after a variance is issued. We might construe the absence of any discussion of an ''otherwise applicable'' increment in this section of the Act to mean that Congress did not intend for the Class I increment to have continuing effect in the area after the variance was issued. Since Congress did not specify the number of days on which the ''otherwise applicable'' increment could be exceeded per year (as it did in section 165(d)(2)(D)(iii)), one interpretation is that this information was not needed because Congress did not intend for the Class I increments to apply after it was demonstrated that the Class I increment was not a reliable predictor of the degree of impact on AQRVs in a particular Class I area. Under this approach, the Class II increments (plus the unique 3-hour SO_2 increment) would continue to provide an upper bound on emissions growth to protect the Class I area while AQRVs remained in effect to protect against site-specific impacts that are not adequately represented by the Class I increment. However, under this Class II increment substitution approach, the Class I increment would no longer be available as a tool to determine who has the burden of proof to demonstrate the degree of impact on AQRVs.

In this action, we are proposing a compromise approach that retains the Class I increment for the purpose of establishing the burden of proof in the AQRV analysis but does not require a SIP to be amended to offset the contribution of sources that have received a variance because they do not adversely affect AQRVs. We propose to accomplish this effect by allowing States to exclude the emissions from sources receiving an FLM variance from the Class I increment consumption calculation. The emissions of the variance source must continue to be considered for purposes of determining compliance with the Class II increments, but they would no longer be considered relevant to the Class I increment assessment after a variance has been issued. The Class I increment would remain in effect with respect to the emissions of other sources, and could not be exceeded on any additional days. The emissions of sources that have

not received a variance would continue to count against the Class I increment.

For example, assume that an impact area for a proposed new source contains four sources that currently consume the SO_2 increment for the 3-hour averaging period—two of which have FLM variances and two of which do not. There are no other increment consuming or expanding sources in the impact area. For the 3-hour averaging period for SO_2, the Class I increment is 25 μg/m³ and the alternative increment that applies after issuance of an FLM variance in this area is 325 μg/m³.[11] Assume that the two sources with variances consume 4 μg/m³ each, for a total of 8 μg/m³. Assume that the two sources without variances consume 10 μg/m³ each, for a total of 20 μg/m³. Under this scenario, if a new source applies for a permit, under this proposed rule the new source must combine its emissions with the emissions from the other two sources without variances and not exceed, for the Class I area of impact, 25 μg/m³. Thus, the new source can consume up to 5 μg/m³ (i.e., 25 μg/m³ minus 20 μg/m³) of the available Class I increment for SO_2 without assuming the burden of obtaining a third variance by demonstrating to the FLM that the source will not have an adverse impact on AQRVs in the Class I area.

Under this hypothetical example, because two sources in the area have previously obtained variances and shown that the Class I increment is not necessarily a reliable indicator of impacts on AQRVs, an alternative increment of 325 μg/m³ now applies in the Class I area for all sources. The proposed source must combine its emissions with that of all 4 sources and not exceed a concentration increase of 325 μg/m³. Since the other four sources consume 28 μg/m³, the new source can consume up to 297 μg/m³ (i.e., 325 μg/m³ minus 28 μg/m³) of the available increment for SO_2.[12]

Furthermore, the AQRV test remains applicable to the ultimate decision as to whether the permit may be issued for the new source. Even though the new source, combined with the two existing sources without variances, may not cause or contribute to an exceedance of the Class I increment, the permit could nevertheless be denied if the FLM convinces the reviewing authority that the new source will have an adverse impact on AQRVs in the affected Class I area.

Since a variance will not be issued unless the Class I area FLM certifies that the emissions from a proposed source will not have an adverse impact on AQRVs, it is reasonable to omit the emission of such source from the increment consumption analysis for the Class I increment on an ongoing basis. A source issued a variance does not adversely impact AQRVs, which as discussed above, is the critical and adaptable test Congress established for protecting site-specific concerns in Class I areas. Each successive source that impacts the Class I area would still have to show that it does not harm the AQRVs to receive a permit. The Class I increment would remain relevant as an indicator for assessing when other sources may have an adverse impact on AQRVs. If sources other than the variance source cause an exceedance of the Class I increment, the next source to apply for a permit affecting the area will have the burden of demonstrating to the FLM that the proposed source's emissions do not adversely affect AQRVs. If the emissions of the proposed source and other sources that have not received a variance do not consume the Class I increment, then the FLM will bear the burden of convincing the reviewing authority that the proposed source will adversely impact AQRVs. Plus, the alternative increments (generally the Class II increments) apply to limit the overall increase in concentrations caused by all sources affecting the Class I area.

This approach is a permissible reading of the Clean Air Act that reconciles some apparent inconsistencies in the statutory scheme. Even when a variance is issued under section 165(d)(2)(C), the Act does not expressly allow the Class I increment to be exceeded on any additional days. If this omission were read strictly to preclude any additional days of violation of the increment, this would be inconsistent with allowing a variance because the strict reading would preclude any additional days of a Class I increment violation, even those caused by a variance source. The issuance of a variance would appear to require at least a temporary variance from the Class I increment, even if the SIP still has to be amended at a later date to correct the violation, but that would be inconsistent with a strict reading of section 165(d)(2)(C)(iv) to preclude additional violations of the Class I increment. If section 165(d)(2)(C)(iv) is read to require that the Class II increment permanently supersede the Class I increment, an unlimited number of additional days of Class I increment violations would be permitted and the burden shifting effect of the Class I increment would be lost. Our proposed approach of excluding the emissions of variance sources from the Class I analysis appears to be the best way to avoid authorizing any additional days of Class I increment violations while retaining the role of the Class I increment as a tool to determine who has the burden in the AQRV analysis.

Because of the differences between section 165(d)(2)(C) and 165(d)(2)(D), we do not propose to apply this same exclusion to variances issued under section 165(d)(2)(D). Instead of allowing an exclusion from the Class I increment consumption analysis, it appears that Congress opted in section 165(d)(2)(D) to apply the otherwise applicable Class I increment and instead to allow that increment to be exceeded on 18 days per year instead of the normal limit of 1 day per year.

We also propose to use this rule as an opportunity to correct a typographical error in the provisions of our rules addressing the FLM variances. The cross references contained within 40 CFR. 51.166(p) and 52.21(p) incorrectly refer to paragraph (q) of these provisions. We propose to amend these provisions so they reflect the correct cross-references to portions of paragraph (p).

B. How are emissions estimated for sources that consume increment?

To model the expected change in concentration of pollutants above the baseline, one needs to identify the emissions of those sources that are included in the increment consumption analysis. As noted earlier, the PSD regulations call for this analysis to be based on the actual emissions of sources. The baseline concentration is generally based on ''actual emissions * * * representative of sources in existence on the applicable minor source baseline date.'' *See* 40 CFR 51.166(b)(13)(i)(*a*) and 52.21(b)(13)(i)(*a*). The concentration after the minor source baseline date is generally based on ''actual emissions increases and decreases * * * at any stationary source occurring after the minor source baseline date.'' *See* 40 CFR 51.166(b)(13)(i)(*b*) and 52.21(b)(13)(ii)(*b*). There are certain exceptions to these general principles for emissions of major sources, but the basic methodology involves identifying the actual emissions of sources on the minor baseline date and actual emissions increases and decreases after

[11] As previously noted, the 3-hour averaging period for SO_2 is unique in that the Act specifies an increment for purposes of the FLM variance (325 μg/m³) that is different from the corresponding Class II increment (512 μg/m³).

[12] The increment consumption estimates for all existing sources are based on modeling of their actual emissions, while the consumption estimate for the new source is based on modeling of its potential to emit (PTE).

the minor source baseline date at sources existing on the minor source baseline date and increases attributable to the addition of new sources since that time.

In practice, an assessment of increment consumption in accordance with these requirements has generally involved compiling an actual emissions inventory for two separate time periods. The first part of the inventory generally contains actual emissions as of the minor source baseline. However, for major sources that experienced changes in emissions resulting from construction (as defined at 40 CFR 51.166(b)(8) and 40 CFR 52.21(b)(8)) after the major source baseline date, the emissions as of the major source baseline date would be used. The second part of the inventory contains actual emissions as of the time of a periodic review of increment compliance or the review of a pending PSD permit. In the case of a PSD permit review, the second part of the inventory contains the projected emissions of the proposed source. The existing PSD regulations contain a definition of the term ''actual emissions'' in 40 CFR 51.166(b)(21) and 52.21(b)(21). This definition is expressly incorporated into the definition of ''baseline concentration'' which establishes the basic parameters described above for determining the change in concentration since the baseline date.

In this action, we are proposing to adopt a revised definition of ''actual emissions'' that will address the methodology for quantifying emissions as of the baseline date and emissions that consume increment. Rather than revising the existing definition of actual emissions in 40 CFR 51.166(b)(21) and 52.21(b)(21) which may continue to be used for other purposes under the PSD program, we propose to promulgate a new definition of ''actual emissions'' in 40 CFR 51.166(f) and 52.21(f) that will apply only to the analysis of increment consumption and be easier to find among other provisions pertaining to the increment consumption analysis. We also request comment on whether we could also repeal the existing definition of actual emissions in 40 CFR 51.166(b)(21) and 52.21(b)(21) without affecting other elements of the PSD program.

1. Data and Calculation Methods Used to Establish Actual Emissions

We propose to add language to the PSD regulations to clarify that a reviewing authority has discretion to use its best professional judgment when determining the actual emissions of sources as of the baseline date and at subsequent periods of time, particularly where there is limited data available from which to determine actual emissions. We propose to establish a general standard for the sufficiency of data and calculation methods on which actual emissions may be based, but also request comment on WESTAR's recommendation that EPA establish a menu of permissible data types and calculation methods from which each reviewing authority may select.

Background. Because direct measurement of the emissions from a stack may not be available, the emissions of baseline and increment consuming sources must often be derived from other data that is available. The current regulations applicable to increment consumption analyses specify that ''actual emissions shall be calculated using the unit's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period.'' *See* 40 CFR 51.166(b)(21) and 52.21(b)(21). This general requirement adopted in the PSD regulations in 1980 presumed the availability of reliable and consistent records on operating hours, production rates, and materials composition.

However, the experience of EPA and many States in implementing the PSD program since this time has shown that the accuracy and reliability of the available data may be questionable or may vary significantly over the time period of the emissions estimate. For PSD baseline dates that are many years in the past, information on actual source operations may be sketchy or lacking altogether. Furthermore, the composition of raw materials, such as the sulfur content of coal, may change over time and might be reliably estimated for an annual average value, but may be significantly higher during a shorter period of time within that year or when a maximum value is determined.

There may also be cause to choose among various calculation methodologies for a given emissions estimate. For example, annual emission rates could be calculated based on continuous operation (24 hours per day, 365 days per year). If a source does not operate continuously, whether by design or permit limitation, the annual emissions could be based on the limitation. Due to scheduled shutdowns and maintenance, sources rarely operate at design or permit limits, and in such cases actual operating hours could be used. However, there will be situations when data on operating hours are not available and some other estimate of operation must be determined. The choice of which data to use in a particular circumstance, particularly where there is more than one set of data that could be used or more than one methodology, has generated substantial uncertainty in the context of the PSD program. This uncertainty also extends to how gaps in the data are handled, such as when data are unavailable or are available for only a subset of a group of similar sources.

Other than the language quoted above from the definition of ''actual emissions'' calling for emissions to be calculated based on actual operating hours, production rates, and materials composition, the PSD regulations have not included any criteria for reviewing authorities to use to determine actual emissions. We have provided more specific guidance for demonstrations of compliance with the NAAQS under the PSD program in table 8–2 of appendix W, but this table was not developed for purposes of increment consumption analysis. Section 8.1.2.i. currently recommends only that ''NAAQS compliance demonstrations in a PSD analysis should follow the emission input data shown in Table 8–2.'' We do not believe our recommendations in Table 8–2 can be readily extended to increment consumption analyses because of differences in the increment consumption analysis. Unlike the NAAQS analysis, increment consumption assessments have generally focused on changes in emissions, rather than absolute concentrations, and often must account for emissions that occurred many years earlier on the applicable baseline date.

We do not necessarily read the Act to call for the same degree of precision in the increment consumption analysis as a determination of compliance with the NAAQS. Under the constraints imposed by Congress, the increment analysis is in many ways an artificial assessment because the actual emissions as of the date of the first PSD permit application in an area must be adjusted. This adjustment accounts for emissions increases resulting from construction (as defined at 40 CFR 51.166(b)(8) and 40 CFR 52.21(b)(8)) at major sources in the area that occurred prior to that date. CAA section 169(4). In addition, the actual emissions of some sources may be omitted from the analysis altogether under section 163(c) of the Act. Because Congress required or permitted these adjustments to the calculation of baseline concentrations and concentrations after the baseline date, we believe the method used to determine increment consumption should endeavor to provide a representative indication of the relative magnitude by which air quality

concentrations have changed over time, but is not necessarily required to provide an exact prediction of the change in air quality concentrations from one date to another.

Proposed Action. To address the uncertainty in how to determine actual emissions for increment consumption purposes, we propose to codify a policy that gives the reviewing authority discretion to select the data and emissions calculation methodologies that are reliable, consistent, and representative of actual emissions. The cornerstone of such a policy is that emissions estimates used to establish baseline concentrations and increment consumption or expansion must be supported by the available record and be rationally-based. This policy would give reviewing authorities the discretion to use the best available information and to make reasonable judgments as to the reliability of that information for determining actual emissions, particularly when estimating emissions for baseline dates in distant years for which very little useful data may be available. In addition, this policy would seek to ensure a reliable estimate of the change in air quality concentrations by encouraging reviewing authorities to evaluate the degree of change by comparing consistent data types or concentration predictions (i.e., to conduct an ''apples'' to ''apples'' comparison of the change in emissions or concentrations). We believe that this flexible approach is preferable to a rigid requirement to use a specific type of data or calculation method because of uncertainty over the exact type and quality of data that will be available in each instance.

This policy is consistent with existing recommendations in appendix W and EPA guidance. Section 8.0.a. of appendix W currently states that ''[t]he most appropriate data available should always be selected for use in modeling analyses.'' This approach is consistently applied throughout appendix W wherein the reviewing authority is given discretion to approve the selection of input data for air quality models.

We have generally given reviewing authorities substantial leeway within the PSD program to select data and emissions calculation methodologies that they believe are representative of actual emissions. We recognize that where the available data are poor, substantial judgment must be used to estimate actual emissions. Once the reviewing authority has selected data and emissions calculation methodologies according to general guidelines, we typically have not second-guessed their choices. In particular, we have not required reviewing authorities to select data or methodologies that we might consider ''more reasonable'' or ''more representative'' than those they have chosen.

We propose to give each reviewing authority the responsibility to verify and approve the data used, and to assure that it meets a basic standard of reliability, consistency, and representativeness. In light of the fact that many recommendations in section 8.0 of appendix W are not necessarily applicable to the increment analysis, we propose to make clear that this standard will control over the recommendations in appendix W.

We request comment on this policy, and on the regulatory language proposed at 40 CFR 51.166(f)(1)(iv) and 52.21(f)(1)(iv) to codify this policy. In addition, we request comment on whether additional guidance or limitations should be articulated and codified for estimating emissions that make up the baseline concentration or consume increment.

Request for comment on WESTAR recommendation. In its May 2005 recommendations, WESTAR expressed the view that EPA should ''afford reviewing authorities some flexibility to ensure that analyses accommodate considerations such as data availability and accuracy.'' However, WESTAR also asked us ''to encourage consistency, predictability, and regulatory certainty with regard to approaches for preparing emissions inventories for refined PSD analyses.''

In order to achieve these goals, WESTAR recommended a two-step approach. The first step would be for EPA to develop a ''menu'' of acceptable emissions calculation approaches for both short-term and annual PSD analyses. The second step would allow the reviewing authority to select what they believed to be the most appropriate option from the menu based on a set of guiding principles. The reviewing authority would be able to use calculation approaches not included in the menu provided that they can demonstrate that the approach is consistent with the Act and NSR regulations, as well as the principles included in step two. According to WESTAR's report, this two-step approach would help alleviate the current lack of clarity and narrow interpretations of the definition of actual emissions used for emissions inventories in PSD analyses.

WESTAR's report identifies various types of data that might be used in the menu. These data types are discussed in more detail below in the context of the more specific issue of short-term emissions estimates.

WESTAR also provided guiding principles that could be used in selecting among the menu items. These principles are the following:

- Maximize the accuracy of the method(s) in reflecting the actual status of air quality during each time period associated with applicable standards;
- Conform to the Act, Federal PSD rules, and other applicable laws and rules;
- Ensure consistency between emissions calculation methods used for sources in the baseline emissions inventory and the current emissions inventory;
- Ensure that selected methods are practical given the availability of reviewing authority access to the emissions data;
- Support fairness and consistency in how emissions are calculated for various source types across and within States; and
- Support key air quality management objectives that States and EPA are seeking to achieve, such as encouraging sources' use of continuous emissions monitoring systems (CEMS) and discouraging sources from seeking more permitted air quality increment than they need.

We request comment on WESTAR's proposed approach. For more information, we encourage you to review the WESTAR recommendations that can be found in the docket for this rulemaking. We also request comment on any other aspect of selecting data and calculation methodologies for emissions inventories for PSD analyses.

2. Time Period of Emissions Used To Model Pollutant Concentrations

In this action, we are also proposing amendments to clarify the time periods to be used for emissions from sources included in the calculation of the baseline concentration and the change in concentration after the baseline date. In general, we have called for the modeling change in concentration to be based on the emissions rates from increment consuming sources over the 2 years immediately preceding a particular date. However, there are circumstances when another period of time may be more representative of actual emissions as of a particular date. This rulemaking is intended to clarify those circumstances when it is permissible to use another period of time to represent actual emissions as of a particular date for purposes of calculating the change in concentration used to evaluate consumption of PSD increments.

Background. Since source operations are inherently variable over time, the NSR regulations do not require that ''actual emissions'' on a particular date be based only on the emissions occurring on that single date. Instead, the regulations generally require that the baseline concentration be based on an average of the emissions observed over the 2 years prior to the baseline date (40 CFR 51.166(b)(21)(ii) and 52.21(b)(21)(ii)). However, we have long recognized an exception to this general rule, which provides that a different period of time may be used when another period of time is more representative of normal source operations (40 CFR 51.166(b)(21)(ii) and 52.21(b)(21)(ii)).

The original definition of ''actual emissions'' was used in several different ways under the NSR program. In addition to being incorporated in the definition of ''baseline concentration'' and thus used for purposes of determining consumption of increment, this definition of ''actual emissions'' has also been applied for the purpose of identifying the change in emissions attributable to the modification of a major source. An existing major source is subject to NSR if it engages in a major modification which is defined to mean ''any physical change in or change in the method of operation of a major stationary source that would result in a significant emissions increase * * * and a significant net emissions increase of that pollutant from the major stationary source.'' *See* 40 CFR 51.166(b)(2) and 52.21(b)(2). Prior to 2002, the definition of ''actual emissions'' in 40 CFR 51.166(b)(21) and 52.21(b)(21) applied to determine the actual emissions of the source prior to the change and after the change.

In 2002, we adopted a new definition of ''baseline actual emissions'' that is now used to determine actual emissions before a change for purposes of determining whether a source is proposing a major modification that requires a preconstruction permit. This definition allows non-utility units to identify pre-change emissions using any 2-year period in the 10 years preceding and requires electric utilities to use any consecutive 2 years in the last 5 years. We adopted this new definition to reflect the emissions levels that occur during a normal business cycle, without requiring sources to demonstrate to the reviewing authority that another period is more representative of normal source operation. *See* 67 FR 80191–92. However, in that rulemaking, we made clear that original ''actual emissions'' definition continues to apply for other purposes under the PSD program. We observed that the existing definition of actual emissions ''continues to be appropriate under the pre-existing regulation and for other NSR purposes, such as determining a source's ambient impact against the PSD increments, and we continue to require its use for such purposes.'' *See* 67 FR 80192, footnote 13; 67 FR 80196.

Prior to 2002, when determining the baseline actual emissions at a source experiencing a modification that might trigger NSR, we applied the ''more representative of normal source operations'' exception in 40 CFR 51.666(b)(21) and 52.21(b)(21) in a narrow set of circumstances. For example, in 1999, the Administrator addressed this issue in response to a petition to object to issuance of a title V operating permit and observed that EPA ''has applied its discretion narrowly in assigning representative periods other than the 2 years immediately preceding the physical or operational change.'' *See* Order Responding to Petitioner's Request That Administrator Object to Issuance of State Operating Permit, In the Matter of Monroe Electric Generating Plant Entergy Louisiana, Petition No. 6–99–2. In a draft 1990 guidance document, the agency observed that normal source operations ''may be affected by strikes, retooling, major industrial accidents, and other catastrophic occurrences.'' NSR Workshop Manual at A.39. Based on these examples, we have sometimes looked for evidence of a ''catastrophic occurrence'' before permitting an alternative period to be used to establish the actual emissions of a source prior to a modification. For example, in a 1992 memorandum, the Director of the Air Quality Management Division (AQMD) concluded that the exception should not be invoked for a source that had been idle for 10 years due to economic reasons and had not demonstrated that operations of the plant were disrupted by catastrophic occurrences or other extraordinary circumstances. The director identified strikes and major industrial accidents as examples of catastrophic occurrences. Memo from John Calcagni, AQMD, to David Kee, Region V (August 11, 1992). Although we have, in our discretion, applied the definition in 40 CFR 51.166(b)(21) and 52.21(b)(21) narrowly, we did not amend these regulations to restrict application of the ''normal source operation'' exception in the definition of ''actual emissions'' to only catastrophic occurrences. In recent years, we have moved away from this approach in rulemaking actions.

In the process of establishing the new definition of ''baseline actual emissions'' for applicability purposes, we observed that the more representative or normal source operation provision ''has been a source of confusion and uneven implementation.'' *See* 61 FR 38259, July 23, 1996. This observation was based on our experience with identifying increases in emissions for purposes of determining whether a source was proposing to undergo a major modification and required a permit. We were not concerned at that time about the application of this exception in the context of the PSD increment analysis. However, we have since discovered that the legacy of implementing the ''normal source operation'' exception in the context of NSR applicability has had a collateral effect of fostering confusion in those circumstances, such as PSD increment analyses, where the ''actual emissions'' definition in 40 CFR 51.166(b)(21) and 52.21(b)(21) continues to apply. Recently, the question has arisen as to whether the guidance we provided on the ''more representative of normal source operations'' exception in the applicability context should also be applied in the context of increment consumption analysis. As a result of this question, we have been reviewing the issue, and propose to clarify our position in this rulemaking.

Proposed Action. In this action, we are proposing to establish a new definition of ''actual emissions'' (applicable only to the increment consumption analysis) which clarifies the circumstances when it is permissible, in the context of an increment consumption analysis, to determine actual emissions for increment consuming sources using a period of time other than the 2 years immediately preceding the relevant date. We propose to codify this element of the new definition in 40 CFR 51.166(f)(1)(iv) and 52.21(f)(1)(iv) of the PSD regulations.

This issue has arisen most recently in the context of determining the actual emissions of sources as of the baseline date. However, we recognize that this issue could also arise when seeking to establish the ''present day'' inventory of emissions increases or decreases after the baseline date. Under existing regulations, the same definition of actual emissions applies in each instance. Our proposed definition of ''actual emissions'' for the increment consumption analysis is intended to apply to both sides of the ledger in order to provide consistency. We believe the same principles should apply when determining emissions as of the baseline date and the present day.

The proposed revisions are intended to address three primary issues. First, we propose to clarify that one is not required to demonstrate the occurrence of a catastrophic event in order to determine actual emissions on the basis of a period other than the 2 years immediately preceding the date in question. Second, we seek to clarify that there can be circumstances where emissions increases occurring after the baseline date or due to increases in hours of operation or capacity utilization may be more representative of normal source operation. Third, we are clarifying that when an alternative (more representative) time period other than the 2 years before the particular date is used to reflect actual emissions, that alternative time period must be representative of source emissions (within an expected range of variability) *as of* the particular date and cannot be based on emissions experienced because of a change in the normal operations of that source *after* that date.

With respect to the first issue (whether a ''catastrophic occurrence'' must be shown), we have historically approached the ''normal source operation'' exception differently in the context of the PSD increment analysis. The guidance in which we have looked for evidence of ''catastrophic occurrences'' only addressed the subject of baseline actual emissions prior to a modification and did not discuss how to determine the emissions of sources on the PSD baseline date for increment purposes. As discussed further below, in the context of the PSD baseline concentration, we have not previously limited the application of the ''normal source operation'' exception to those circumstances where a source experienced a malfunction or catastrophic event. In the context of increments, we have recognized that the ''normal source operation'' exception may apply in other kinds of circumstances where it can be shown that source emissions in the 24 months preceding the baseline date are not representative of its normal operations at the time of the baseline date.

We do not believe it is appropriate to define ''actual emissions'' as narrowly in the context of PSD increment consumption analysis as it had been applied in the context of PSD applicability determinations before 2002. Although we have looked for evidence of ''catastrophic occurrences'' to establish that another time period is more representative of actual emissions prior to a modification, we do not believe this fact alone justifies using a similar approach for identifying representative periods of actual emissions in the context of a PSD increment analysis. The modification context in which this approach was once used is different from the increment consumption context. The former involves the initial determination of whether a PSD permit is required, and evaluates only an increase in emissions from a single source resulting from a proposed change. By contrast, an increment compliance assessment is performed after it is clearly established that a source must obtain a PSD permit (or may be done in a periodic review when no permit is pending) and evaluates a change in air pollutant concentration using modeling and emissions data inputs for multiple sources. We believe the differing nature of the increments analysis justifies a different approach.

As to the second issue described above, our proposal to sometimes allow emissions after the baseline date to be used to calculate the baseline concentration is consistent with our historic interpretation of the ''normal source operation'' exception in the context of the increment consumption analysis. In our original PSD regulations after the 1977 Amendments to the Act, we considered emissions increases attributable to increases in hours of operation or capacity utilization to be a part of the baseline concentration (rather than increment consuming increases) if the source was allowed to operate at that level in 1977 and could have reasonably been expected to make those increases at the time. *See* 43 FR 26400, June 19, 1978. However, in 1980, we eliminated the automatic inclusion of these emissions in the baseline concentration. Instead, we chose to address the issue on a case-by-case basis when it could be demonstrated that emissions attributable to increased utilization were more representative of normal source operation under the definition of ''actual emissions.'' When we adopted this change, we said that ''if a source can demonstrate that its operation after the baseline date is more representative of normal source operation than its operation preceding the baseline date, the definition of actual emissions allows the reviewing authority to use the more representative period to calculate the source's actual emissions contribution to the baseline concentration.'' *See* 45 FR 52714, Aug. 7, 1980. We continue to view this to be an appropriate policy and propose regulatory language to make this explicit in the regulations.

Identifying ''actual emissions'' based on representative emissions as of the PSD baseline date is consistent with the opinion of the D.C. Circuit in the *Alabama Power* case. In that decision, the court noted the following:

> Congress did not intend a simple measurement of air quality on a day with atypical conditions to control calculation of the baseline. Reasonable efforts to ascertain the actual but usual concentration levels, as of the date of the first applicable for a permit, are required.

See Alabama Power, 636 F.2d at 380 n. 44. We believe that the proposed definition of ''actual emissions'' for increment consumption purposes is consistent with Congressional intent, as described by the court. It is reasonable to allow a showing that a period other than the 24 months prior to the baseline date are representative of the ''usual'' concentration levels at the time of the baseline date where emissions after the baseline date can be shown to represent the ''usual'' or ''normal'' concentration levels. As observed by the court in *Alabama Power,* ''Congress expected EPA to use 'administrative good sense' in establishing the baseline and calculating exceedances.'' *See Alabama Power,* 636 F.2d at 380. We have considered this approach to make good sense since 1980. Although emissions after a baseline date may sometimes be reflected in the baseline concentration, this has historically been a narrow exception because, in general, increases in emissions that occur after the baseline date consume increment. *See* 40 CFR 51.166(b)(13) and 52.21(b)(13); *see* also draft NSR Manual at C.35 and C.48.

With respect to the third issue listed above, while we propose to clarify that emissions after the baseline date may sometimes be used to represent actual emissions as of the baseline date, we must also emphasize that this is permissible only in limited circumstances. We propose to include language in our new definition that limits the circumstances under which post-baseline date emissions can be considered representative of normal source operations for purposes of establishing the baseline concentration. Such a limitation is needed to ensure that the increment system continues to function as intended to prevent significant deterioration from actual increases in emissions after the baseline concentration is established. We seek to ensure that real increases in emissions that are outside of a normal range of variability will continue to be regarded as consuming increment, while recognizing that due to the normal variability in source operations, some apparent increases in emissions are justifiably included in the baseline where they are representative of the emissions experienced by a source as of

the baseline date. We believe that increases in emissions that are not attributable to the normal variability of source operations at a particular time are actual increases that should be counted as consuming the available increment.

Under the Act and applicable case law, it is clear that the emissions that make up the baseline concentration must be representative of air pollutant concentration levels at the time of the baseline date. Section 169(4) of the Act defines baseline concentration as the ''ambient air concentration levels which exist at the time of the first application for a permit.'' In the *Alabama Power* decision, the court observed that the baseline concentration is tied to first permit application because Congress intended permitting authorities to use actual data to establish baseline or make permit applicants collect data at the appropriate time. *See* 636 F.2d at 375–76. In defining baseline concentration, we have required a baseline concentration to be based on ''actual emissions * * * representative of sources in existence on the applicable minor source baseline date.'' *See* 40 CFR 51.166(b)(13)(i)(*a*).

Our proposed approach should not be construed to allow emissions estimates as of the baseline date to be based on operations over the entire life of a source or a period of operations that is not representative of operations as of a particular date. Actual emissions as of a particular date must be representative of normal operations (which include an expected range of variability) during the applicable time period. For example, when estimating sulfur dioxide emissions from a coal-fired electric generating unit, we do not believe it is appropriate to use the weighted average sulfur content for coal from any period over the life of the mine supplying the facility. However, we recognize that there may be some variability in the sulfur content of the coal used by a source at the time a baseline date is established. For example, if the baseline date were some time in the 1970s, we believe it would be appropriate for the emissions from this source to be based on a weighted average sulfur content for coal used by the source in the 1970s. However, we would not consider it appropriate for the source to use a weighted average of sulfur content from coal used in the 1990s to represent the composition of coal combusted in the 1970s, unless it can be shown that the composition of coal used in the 1990s is in fact representative of the coal the source actually used in the 1970s. Our intent is to revise the regulation to codify the approach reflected in our Memorandum of Understanding with North Dakota which calls for using the sulfur content of coal consumed during a unit's baseline normal source operations, rather than the sulfur content averaged over the entire life of a mine or any period of operations in the life of the source that is not representative of operations on a particular date.

This approach is consistent with language in the existing definition of ''actual emissions,'' which provides that ''[a]ctual emissions shall be calculated using the unit's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period.'' *See* 40 CFR 51.166(b)(21)(ii) and 52.21(b)(21)(ii). The selected time period under this provision should be either the 24 months before the particular date or an alternative period that is shown to be more representative.

In order to ensure consistent measurement of increases in air pollutant concentration, we believe it is also appropriate to also apply the ''normal source operation'' exception in the context of the emissions inventory for the present day period. As applied to the present day inventory of emissions, if a source experiences lower than normal emissions in the 2 years preceding the review, more representative emissions should also be used in the present day inventory to avoid undercounting actual emissions increases.

Thus, we propose to revise the regulatory language to allow actual emissions used in an increment consumption analysis to be computed based on the operations of a source during a time other than the 24 months preceding a particular date upon a determination that such period is more representative of normal source operation as of the particular date if a credible demonstration can be made that the unit's operations in the 24 months preceding the date were not typical of operations as of the particular date. A period after the particular date may be used, but only if such period is more representative of normal source operations as of the particular date. Operations occurring prior to a particular date would not be considered representative of normal source operations for a particular date if they permanently ceased more than 24 months prior to that date. Under the proposed regulation, the alternative time period that is used to compute actual emissions must be another consecutive 24-month period unless two non-consecutive 12-month periods are demonstrated to be more representative of normal source operation under the criteria in the regulation.

3. Actual Emissions Rates Used to Model Short-Term Increment Compliance

We also propose in this rule to clarify how one should derive source emissions rates of less than 1 year for sources contributing to the baseline concentration and increment consumption when evaluating compliance with the short-term (24-hour and 3-hour) increments for PM and SO_2. Increments for a 24-hour averaging time are currently in place for both PM and SO_2. The 3-hour averaging time is only used for the SO_2 increments. Based on recent experience and the recommendations of WESTAR, we believe that we need to provide additional guidance to States and regulated entities concerning how to determine actual emissions for purposes of modeling the concentration changes over the 3-hour and 24-hour averaging times.

Background. The definition of actual emissions in 40 CFR 51.166(b)(21) and 52.21(b)(21) does not directly address how one is to determine actual emissions when modeling pollutant concentrations averaged over periods less than 1 full year. Under the current provision, actual emissions are identified using an annual average in tons per year. However, this section does not directly address how to determine actual emissions over shorter time periods, such as the 24-hour or 3-hour averaging times that are used for some of the PSD increments.

In draft guidance prepared in 1990, we recommended that sources and reviewing authorities use the ''maximum actual emissions rate'' for short-term averaging periods. *See* draft NSR Manual at C.49. We indicated that ''the maximum rate is the highest occurrence for that averaging period during the previous two years of operation.'' *Id.* We recommended using this maximum rate for both the current and the baseline time periods. *Id.* This was consistent with guidance that had been provided by at least one EPA Regional Office as far back as 1981. *See* Memorandum from Thomas W. Devine, Region IV, to State and Local Air Directors, ''Policy Determinations Regarding PSD Questions'' (July 31, 1981).

In practice, however, we have since come to recognize that there is often not sufficient data available to determine the maximum short-term emissions rate over a 2-year period. This type of determination will typically require CEMS. For PSD baseline dates

established in the 1970s and 1980s, these data are especially difficult to find. As a result of this difficulty, some States and EPA Regional Offices have allowed calculation of an average short-term rate using an average rate calculated from annual emissions in situations where short-term maximum actual emissions data are not available.

Proposed Action. We propose to promulgate a new definition of ''actual emissions'' applicable to the PSD increment analysis that specifically addresses how to derive short-term emissions rates when modeling the change in concentration for the 24-hour and 3-hour averaging periods used in increments for some pollutants. We propose to add a provision that allows permitting authorities to use their discretion to use data that promotes consistency in the analysis and does not bias the analysis in favor of one group of sources over another. Under this approach, an average short-term rate may be used if the reviewing authority finds this to be the best way to promote consistency and avoid bias. Maximum short-term rates may continue to be used where sufficient data are available, but need not be used in all circumstances. Although we have historically called for use of maximum short-term rates, some stakeholders have suggested that the modeled change in concentration may be overly conservative when increment consumption modeling is based on maximum emissions rates from all sources that consume increment. We understand it may not be reasonable to expect that increment-consuming sources will all be operating at their maximum short-term emissions rates at exactly the same time. If we were to require the use of maximum emissions rates in all instances, this would mandate that PSD modeling always be conducted using a scenario that is not necessarily representative of actual emissions or concentrations. As the court said in *Alabama Power,* EPA should use ''reasonable efforts to ascertain the actual but usual concentration levels'' and ''administrative good sense in establishing the baseline and calculating exceedances.'' *See* Alabama Power, 636 F.2d at 380, 380 n.44. Since it may be unusual for all increment consuming sources to all be operating at their maximum emissions rates at the same time, we believe that ''administrative good sense'' dictates that we permit average emissions rates to be used as well. However, we are not proposing to preclude use of a maximum rate where a reviewing authority or source wishes to conduct a more conservative screening analysis or considers a maximum rate more appropriate under the circumstances for all sources or just for certain sources in the inventory. In many cases, combining the average emissions rates of all increment consuming sources in an emissions inventory may produce a more representative picture of the degree of change in short-term pollution concentration over time.

A more representative indication of the change in emissions is produced by using a consistent set of data. If actual short-term emissions rate or hourly operations data are only available from some sources in an inventory, the analysis could be biased by mixing these data with averages calculated from annual operational data. However, if the reviewing authority derives short-term emissions rates by averaging annual data from all sources in the inventory, this may provide a representative depiction of the change in emissions over time. Likewise, if reliable and consistent maximum or short-term rate data are available for all sources in the inventory, this could provide a representative assessment of the change in maximum rates over time. We are proposing to establish a standard that allows sources to select a consistent data set and to otherwise forgo using some maximum or actual short-term data that may be available, but is incomplete and would potentially bias the overall analysis when combined with data of a different type that must be used to complete the assessment. At the same time, we are not proposing to preclude reviewing authorities from mixing data of different types where they consider it appropriate and this technique produces a representative analysis.

In addition, fairness also dictates that we allow use of average short-term emissions rates and not require use of maximum emission rates in all cases. If maximum emissions rates may be used when data are available but averages are used when the data are insufficient, the analysis may be biased against the sources that have maximum emissions rate data. We want to encourage the use of CEMS that have been shown to be reliable and want to avoid a policy that inadvertently discourages the development and use of CEMS. Where most sources in an area are using CEMS to track emissions, the maximum rate approach may be more equitable, but this may not be the case in all areas. Thus, we propose to give the reviewing authority discretion to use available data and to achieve equitable treatment across sources and consistency in the analysis.

Request for Comment on WESTAR Recommendations. As part of its general approach of establishing a menu of available data and calculation methodologies, WESTAR has recommended that EPA establish a more extensive list of permissible data sources and methods for determining short-term emissions rates. For calculating short-term actual emission rates where CEMS data are available, WESTAR recommended that the menu include, with no implications of a hierarchy:

- Use short-term maximum emissions for the entire plant over a 2-year period;
- Determine maximum short-term emissions from each source at the facility;
- Determine short-term emission rates and sort them, then determine representative rates, such as an upper percentile, as the single short-term emission rate for modeling;
- Use CEMS data to determine actual emissions as defined by rule and explained by EPA in the preamble to the 1980 PSD rule revisions; or
- Use hour-by-hour CEMS data in the model.

In situations where CEMS data are not available, WESTAR recommended that the menu for calculating short-term actual emission rates include, with no implications of a hierarchy:

- Average 2 years of actual annual emissions representing normal operations surrounding the baseline date and date of analysis for current emissions, and divide by annual operating hours;
- Calculate emissions from production data for the 2 years prior to the baseline date or date of analysis for current emissions (emissions calculated using valid emissions factors and methods);
- Use 2 years of emissions data, which may be before or after the baseline dates, which have a similar facility configuration that would be representative of baseline emissions; or
- Use of allowable emission rates, including use of regulatory limits, where appropriate.

We request comment on whether we should expand the proposed options for short-term emissions rate calculation to include elements from WESTAR's menu.

4. Use of Allowable Emissions Rates

We have always allowed a reviewing authority or source to conduct a more conservative screening analysis using allowable emissions rates which are

typically higher than actual emissions rates. We propose to preserve that option under the new definition, but we are modifying the language from the prior definition slightly to make clear that we do not intend to mandate the use of allowable emissions, only to allow it at the discretion of the source or reviewing authority.

5. Emissions From a New or Modified Source

When an increment consumption analysis is performed in the context of a pending permit application to demonstrate that a new or modified source will not cause or contribute to an exceedance of the increment, the analysis must include the emissions from the new or modified source when it begins operations after the permitted construction is complete. In the past, we have required such emissions to be based on the potential to emit of the new or modified source. However, in reforms to the NSR program completed in 2002, we allowed modified sources to use projected actual emissions in calculating whether the change resulted in a significant net increase in emissions. See 67 FR 80290 (December 31, 2002). For the same reasons discussed in that rulemaking, we propose to adopt revised language for purposes of the increment consumption assessment that requires the use of projected actual emissions for a modified source. We propose to continue requiring the increment assessment to be based on the potential to emit of a new source that has not begun normal operations as of the date of the assessment.

C. What meteorological models and data should be used in increment consumption modeling?

In addition to information on emissions from sources in the relevant area, one also needs meteorological data to evaluate consumption of the PSD increments. Meteorological data are a necessary input to the air quality dispersion models that are used to identify the change in concentration relative to a pollutant-specific baseline date. This change in concentration is then compared to the increments to demonstrate compliance. Adequate and appropriate meteorological data are a critical input for dispersion models [13] in characterizing the state of the atmosphere in terms of the transport and diffusion of airborne pollutants within the modeling domain. Appendix W contains a list of meteorological data types and meteorological processors that are appropriate for various applications of preferred dispersion models.

Recent experience with PSD increment modeling exercises has raised questions regarding the adequacy of the current EPA guidance to the States and regulated community concerning the appropriateness of certain types of meteorological data and the amount of data that should be obtained for certain dispersion model applications, including PSD increment analyses. We discuss these issues below in light of existing guidance, and seek comment on the need for modification and/or development of additional guidance.

1. Types of Meteorological Data and Processing

Traditionally, dispersion model applications have utilized meteorological inputs derived from the direct processing of National Weather Service (NWS) observation data or meteorological data collected as part of a site-specific measurement program. However, prognostic meteorological models and other tools are available to project meteorological conditions in order to fill gaps in site-specific observational data. Recent experience suggests there may be a need for us to clarify the circumstances when it is permissible and appropriate to use meteorological data derived from prognostic meteorological models in dispersion model simulations such as a PSD increment consumption analysis.

Prognostic meteorological models use fundamental equations of momentum, thermodynamics, and moisture to determine the evolution of specific meteorological variables from a given initial state. These models can characterize meteorological conditions at times and locations where observational data do not exist. Photochemical grid-based air quality models, which require consistent input parameters distributed over an even grid in time and space, routinely utilize data output from prognostic meteorological models. Examples of prognostic meteorological models are:

- MM5—Penn State University/ National Center for Atmospheric Research.
- WRF—Weather Research and Forecasting Model, NOAA/NCAR.
- RUC—Rapid Update Cycle, NOAA Rapid Refresh Development Group.

In addition, diagnostic processors such as CALMET can format meteorological model output data for input into dispersion models. These diagnostic processors often can incorporate meteorological observation data into the process, resulting in a field of meteorological data that effectively blends the ground-truth of observations with the dynamics of the meteorological model. This data assimilation process frequently takes place within the prognostic meteorological models themselves. Run-time parameters may be set in the diagnostic processors to vary the influence observations may have on the resulting data set.

Appendix W identifies criteria for judging the adequacy and appropriateness of such meteorological input data for dispersion modeling applications, including the spatial (i.e., space) and temporal (i.e., time) representativeness of the data for the specific application and the ability of the individual meteorological parameters selected to properly characterize the transport and diffusion conditions based on the formulations of a specific dispersion model. Meteorological data may be considered adequate and appropriate for a particular dispersion model or application, but that determination does not necessarily imply the adequacy and appropriateness of the data for other dispersion models or other applications of the same model. The proper judgment of adequacy and appropriateness of meteorological data requires expert knowledge of each of the main components—the meteorological observation data; the meteorological processor; and the dispersion model formulations and data requirements.

Appendix W lists specific factors to consider when determining whether or not a set of meteorological data is representative for a particular dispersion model application. These include the proximity of the meteorological monitoring site to the area of interest, the complexity of the terrain in the area, the exposure of the meteorological monitoring site, and the period of data collected. Additional factors may be important depending on the requirements of specific models. For example, surface characteristics of the meteorological observation location, depending on land use and land cover characteristics, as well as terrain type and elevation, are required for input to AERMET, the meteorological processor for the AERMOD dispersion model.[14]

[13] Dispersion models are mathematical formulations that describe the fundamental processes that occur in the atmosphere. These processes, for example, include emission, transport, and chemical reaction of pollutants.

[14] AERMOD is a steady-state plume dispersion model for assessment of pollutant concentrations from a variety of sources. AERMOD simulates transport and dispersion from multiple point, area, or volume sources based on an up-to-date characterization of the atmospheric boundary layer. Sources may be located in rural or urban areas, and receptors may be located in simple or complex

Continued

These surface characteristics have a significant impact on the boundary layer [15] parameters that are required for input into the AERMOD model, and therefore have an impact on the resulting air quality results. The determination of representativeness for AERMOD therefore requires consideration of the potential impact of differences in surface characteristics between the meteorological monitoring site and the surface characteristics that generally describe the area upon which the air quality model simulation is focused.

For long-range transport modeling assessments or assessments involving complex winds that require non-steady-state dispersion modeling [16] appendix W allows, and in fact encourages, the use of prognostic mesoscale [17] meteorological models to provide input data into dispersion model simulations. *See* 40 CFR part 51, appendix W, paragraph 8.3(d). However, proper use of output from these prognostic meteorological models in dispersion model applications requires expert judgment, and acceptance of such data is contingent on the concurrence of the appropriate reviewing authorities. Appendix W further indicates that mesoscale meteorological fields should be used in conjunction with available NWS or comparable meteorological observations within and near the modeling domain.

In this action, we are proposing to provide additional guidelines for determining the appropriateness of prognostic meteorological model output data for use in dispersion models. We propose that a determination of appropriateness would involve a process equal in rigor to that already used to review prognostic meteorological model output data for use in photochemical grid modeling applications at the regional scale. We believe that our existing guidance for ozone, $PM_{2.5}$, and regional haze SIP modeling provides a useful basis for the process by which the State may allow use of certain data sets created by prognostic meteorological models as input into dispersion model applications provided these data sets are determined, by using this process, to be appropriate. Currently, acceptable quality of meteorological inputs derived from prognostic meteorological models would be demonstrated by statistical comparison of the prognostic model output to observations for key meteorological parameters, which may include temperature, water vapor mixing ratio, wind speed and direction (surface-level and aloft), clouds/radiation, precipitation, and the depth and evolution of vertical mixing. Identification of key meteorological parameters may depend on the type of model and the temporal and spatial scale of the application.

When making a determination of the representativeness of meteorological inputs derived from prognostic models, it is important to consider the influences of observations both in the meteorological model and in any subsequent processing of the prognostic model outputs when comparing the output to observations as part of the evaluation. For example, a portion of the meteorological observations may be set aside (i.e., not used in the data assimilation process) for evaluation purposes. However, it is important to emphasize that a statistical comparison of the meteorological observation data to the output of the diagnostic processor, or even of the prognostic meteorological models, can only be one part of any determination of appropriateness. A phenomenological evaluation, a generally qualitative comparison focused on the specific meteorological phenomena of importance to a specific application, can be used together with the more quantitative comparisons of specific parameters to provide a more complete assessment of the representativeness of meteorological data. Additional technical factors that may need to be considered in the determination of appropriateness include:

- Selection of geographic domains and time periods;
- Influence of boundary and initial conditions;
- Technical options governing the meteorological model calculations; and
- Data assimilation parameters.

Guidance for consideration of these factors can be found in ''Guidance on the Use of Models and Other Analyses for Demonstrating Attainment of Air Quality Goals for Ozone, $PM_{2.5}$, and Regional Haze,'' draft version 3.2, September 2006 [18] (referred to hereafter as ''the Draft Guidance''). However, this guidance concerns regional-scale photochemical grid model applications. We request comment on how these and other factors may be considered in a determination of appropriateness of meteorological data derived from prognostic meteorological models for use in dispersion modeling applications. As explained in the Draft Guidance, regional-scale photochemical grid model applications require the above factors to be considered with regard to prognostic meteorological model output, and additionally require consideration of other factors specific to photochemical grid modeling.

While meteorological model input that has been accepted for use in photochemical grid modeling may generally be acceptable for application in dispersion modeling inasmuch as the specifics of the meteorological model simulation are concerned, there are additional factors specific to dispersion modeling that must be considered. For example, the particular portion of the meteorological model output used in dispersion modeling must be considered in terms of its appropriateness for that particular dispersion model. Keeping in mind that the grid model is designed to produce a consistent set of parameters covering a large geographic area, we must consider the effects of extracting a few geographic points, from as few as only one grid cell in the entire model domain, and applying that very small subset of data from a greater dataset that was designed to be used in total.

For example, meteorological model simulations are influenced by input data assigned to the boundary grid cells in the domain (i.e., boundary conditions) as well as to all grid cells within the domain at the initial time step (i.e., initial conditions). There are appropriate techniques that may be applied to model simulations to substantially reduce the influence of initial and boundary conditions for photochemical grid modeling.

Boundary conditions, however, are incorporated into the meteorological model at each time step, and therefore the effect of the boundary conditions is evident throughout the meteorological model simulation. To reduce the effect of these assigned boundary conditions, we propose the area of interest be selected from an area substantially within the model simulation domain, for example, at least six grid cells from the boundary. We also propose to include in any review, a thorough

terrain. AERMOD accounts for building wake effects (i.e., plume downwash) based on the PRIME building downwash algorithms. The model employs hourly sequential preprocessed meteorological data to estimate concentrations for averaging times from 1 hour to 1 year (also multiple years). AERMOD is designed to operate in concert with two pre-processor codes: AERMET processes meteorological data for input to AERMOD, and AERMAP processes terrain elevation data and generates receptor information for input to AERMOD.

[15] The boundary layer is the layer of the atmosphere closest to the Earth's surface.

[16] Non-steady-state dispersion modeling is the one that accounts for spatial and temporal variability in meteorological parameters.

[17] Mesoscale is the meteorological phenomena with a horizontal extent from a few to several hundred kilometers.

[18] Available at *http://www.epa.gov/scram001/guidance/guide/draft_final-pm-O3-RH.pdf.*

description of the techniques used to extract data from a larger grid, even if the meteorological data have been approved for use in a photochemical grid model application, if the extraction is performed using a tool or technique not listed in appendix W as part of a preferred modeling system.

2. Years of Meteorological Data

In addition to clarifying the process and guidance for determining the circumstances under which it may be appropriate to input data from prognostic meteorological models into dispersion modeling, we believe it is also necessary to clarify guidance on the number of years of prognostic meteorological model output data that are necessary for a representative dispersion model simulation. With respect to the number of years of meteorological observation data that should be used for dispersion modeling, appendix W currently states the following:

- Five years of representative NWS meteorological observation data are required—the most recent, readily available 5-year period is preferred.
- At least 1 year of site-specific meteorological data is required—as many as 5 years are preferred.

See 40 CFR part 51, appendix W, paragraph 8.3.1.2(a). However, with respect to prognostic meteorological data, appendix W states that for long-range transport modeling and for other assessments involving non-steady-state dispersion modeling to account for complex flows, less than 5, but at least 3, years of data from prognostic meteorological models may be used, and that the years need not be consecutive. *See* paragraph 8.3.1.2(d). We believe that our current guidance provides adequate discretion to the State to determine which and how many years (but no less than 3 years) should be used with regard to meteorological model output appropriate for the dispersion model application. Consistent with appendix W, this approach is integrated with the process described in the preceding section for determining appropriateness of prognostic meteorological model output. When a State is developing a set of data years for dispersion modeling, we propose to allow the State to consider any data years that it has determined to be appropriate using the process described above even if those data years were not produced by the same exact meteorological model configuration and simulation. However, we also propose that the State must further determine that a particular set of data years can be modeled to produce an appropriate depiction of the air quality issue at hand.

3. Evaluating the Appropriateness of Data Years From Prognostic Meteorological Models for Modeling Worst-Case Impacts

For applications in which the modeling approach is designed to model worst-case impacts, we propose that the State should determine whether or not a set of years is appropriate based upon meteorological/climatological representativeness, and additionally determine whether or not that set of years is appropriate to simulate the worst-case conditions required of the application. Keeping in mind worst-case conditions might not be discernable until simulated through a dispersion model, the term ''worst-case'' does not describe a set of worst-case meteorology, but rather a set of meteorology that when modeled, produces a worst-case depiction of air quality. This relationship may not be apparent on simple inspection of only the meteorological data set.

That a particular data set sufficiently represents the meteorological observations for a given area for a given time period, based upon statistical analyses, may not be proof enough to determine that the particular data set is most appropriate for a dispersion application, especially when conducting worst-case applications. Additionally, a set of prognostic meteorological model output might be appropriate for dispersion modeling generally, but the portion of the data extracted for the specific dispersion model application should still be examined for appropriateness. While we do not explicitly propose a three-step process for determining appropriateness, these three individual examinations—appropriateness of the prognostic meteorological model output in general, appropriateness (meteorological representativeness) of the extracted data set, and appropriateness of the data set for the dispersion model application—are each a necessary part of the overall determination of appropriateness, especially in replacing data years of processed meteorological observations. Of course, once a particular data set/subset is determined appropriate, we do not anticipate re-examining that data set for use in other dispersion modeling provided the modeling applications and modeling domains are similar.

We request comment on continuing the current path, based upon appendix W's guidance that previous years of meteorological data which have been used as the basis for permit emission limitations should be added to any subsequent period of meteorological data used for dispersion modeling. *See* 40 CFR part 51, appendix W, paragraph 8.3.1.2(c). We will also accept comments on alternative methods for determining appropriate years of meteorological data including the use of data sets of processed observations, prognostic meteorological model output, or combinations of both.

D. What are my documentation and data and software availability requirements?

Appendix W currently provides recommendations (*see* paragraph 3.1.1) regarding documentation and software availability for preferred modeling techniques that are listed in appendix W. (The preferred models are found in appendix A to appendix W, and are sometimes referred to as ''Appendix A models.'') The purpose of these recommendations includes fostering consistency in the application of dispersion models, minimizing the burden on applicants related to acquiring and setting up modeling applications, and providing transparency regarding model formulations, model performance, and model input requirements. These appendix W recommendations regarding documentation and software availability for preferred modeling techniques include that the ''model and its code cannot be proprietary.'' *See* paragraph 3.1.1(b)(vi) of appendix W.

Application of the non-proprietary requirement to data developed for input into or use by a preferred model, or to other software used to process input data for a preferred model, is not explicitly addressed in appendix W. However, a strict requirement to be non-proprietary is currently not applied to alternative models (paragraph 3.2) that may be selected for use on a case-by-case basis, subject to the approval of the appropriate reviewing authority. Rather, the focus of recommendations related to the use of alternative models is on a demonstration and documentation of model performance that is equivalent or superior to the preferred model and, for cases where there is no preferred model, a scientific peer review and documentation and demonstration of the theoretical basis for the applicability of the alternative model. In addition, proprietary software interfaces to simplify the setup and analysis of Appendix A models have been developed by several commercial vendors, and have been in common usage for more than a decade. Such commercial software interfaces have not been subjected to a requirement to make the proprietary code available to the

public or the reviewing authority. However, demonstrations of equivalency may be, and have been, required of such proprietary interfaces, in keeping with paragraph 3.2.2(c) of appendix W.

With technical advances and the increased use of more sophisticated methodologies for developing the required meteorological inputs for preferred modeling techniques, and in particular the use of prognostic meteorological model outputs in the development of spatial and temporally varying meteorology for long-range transport modeling applications with the preferred CALPUFF model, it is appropriate to address the adequacy and appropriateness of existing guidance for these emerging modeling technologies. Given the critical impact that the processed meteorological data have on such modeling applications, basic requirements for technical documentation and performance demonstration are certainly necessary. However, we believe that the existing guidance provided for alternative modeling techniques adequately addresses these concerns. The existing guidance implies a certain discretion and latitude for the reviewing authority in defining the specific data and documentation requirements necessary to make its determination of the acceptability of an alternative modeling technique for a given application. However, such requirements should be technically appropriate and avoid imposing an unnecessary burden on the applicant. In the case of meteorological data inputs for dispersion models, many of the relevant issues and requirements for such data are also discussed above in section IV.C of this preamble.

In the special case of proprietary data that may be used in the development of model inputs, we believe that it is currently within the discretion of the State to require some independent review of the proprietary data by an oversight agency, if such a review is deemed critical to the overall assessment of the appropriateness of data for a particular modeling application. Another option within the discretion of the State would be for the State itself to conduct the review, provided that proprietary information and trade secrets are protected under a system that is equivalent to EPA's rules for requesting non-disclosure of Confidential Business Information (CBI) submitted to the Agency. *See* 40 CFR part 2. Provided that any appropriate and necessary reviews can be conducted by an independent body or the State reviewing authority with protection against disclosure of CBI, we do not believe it is necessary to require such proprietary data to be made available to the general public or to wholly preclude reliance on the data in regulatory modeling applications.

In the case of software, the focus of the determination of acceptability by the reviewing authority should be on the adequacy of the technical documentation and performance demonstrations that are required to support the use of such software. More specifically in the case of proprietary software, the reproducibility of the data or model simulation may be an important component of the documentation to ensure confidence in the modeling results, and the applicant should facilitate such a demonstration when required. Additional documentation regarding the quality assurance procedures used in the development of the proprietary software may also be relevant to supporting the integrity and accuracy of the results.

We believe that the current text of appendix W adequately defines the documentation and software availability requirements related to both preferred and alternative modeling techniques. We request comment on whether additional guidance is needed to clarify these requirements as they apply to the use of proprietary software and/or data to develop input for an Appendix A modeling application for PSD increment consumption.

VI. Implementation Issues

A. Is there a need for States to make revisions to their SIPs?

As described in this notice, with these regulations we are proposing to refine certain aspects of PSD increment analyses to provide greater clarity to States and regulated sources on how to calculate increases in concentrations for purposes of determining compliance with the PSD increments. Once we finalize these proposed regulations, we intend to encourage States to incorporate them for the sake of consistency and clarity, and to make their SIPs consistent with the proposed rule amendments. This would be a relatively easy task given that SIP changes resulting from other upcoming NSR rulemakings (e.g., rules for electric generating units (EGUs); corn milling; potential to emit (PTE); and aggregation, debottlenecking, and project netting) will likely be required in roughly the same time period. However, we believe that SIP changes would not necessarily be required in order for reviewing authorities to begin conducting PSD increment analyses consistent with these regulations because EPA's prior recommendations have not been binding on States. We are specifically seeking comment on the need for SIP revisions or any viable alternatives for implementing the changes for these proposed increment analysis provisions.

B. When would these policies be put into effect?

We propose to make the proposed regulations effective 60 days from promulgation.

VII. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order (EO) 12866 (58 FR 51735, October 4, 1993), this action is a ''significant regulatory action'' because it is likely to raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order. Accordingly, EPA submitted this action to the Office of Management and Budget (OMB) for review under EO 12866 and any changes made in response to OMB recommendations have been documented in the docket for this action.

B. Paperwork Reduction Act

This action does not impose any new information collection burden. We are not proposing any new paperwork requirements (e.g., monitoring, reporting, recordkeeping) as part of this action. Although we are refining our existing regulations and policy on the analysis of PSD increment consumption, the proposed regulations do not contain new paperwork requirements for permit applicants or reviewing authorities. The PSD increment analysis is already required under existing EPA regulations. The OMB has previously approved the information collection requirements contained in the existing PSD program regulations (40 CFR 51.166 and 52.21) under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* and has assigned OMB control number 2060–0003, EPA ICR number 1230.17. A copy of the OMB approved Information Collection Request (ICR) may be obtained from Susan Auby, Collection Strategies Division; U.S. Environmental Protection Agency (2822T); 1200 Pennsylvania Ave., NW., Washington, DC 20460 or by calling (202) 566–1672.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop,

acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR part 9.

C. Regulatory Flexibility Analysis

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute 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 organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of this action on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of this action on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. This action will not impose any new requirements on small entities. The increment consumption analysis is already required under existing PSD regulations and the proposed refinements to our existing regulations and policy are not expected to increase the economic impact of this analysis on regulated entities. We continue to be interested in the potential impacts of the proposed rule on small entities and welcome comments on issues related to such impacts.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation as to why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

This proposed action contains no Federal mandates (under the regulatory provisions of Title II of the UMRA) for State, local, or tribal governments or the private sector. The PSD increment consumption analysis is already required under existing regulations. In this rulemaking, we are only proposing to refine our existing regulations and policy on how this analysis may be conducted and are not imposing any additional analytical requirements. Thus, this action is not subject to the requirements of sections 202 and 205 of the UMRA.

In addition, we have determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments. As discussed above, this proposal would not impose any new requirements on small governments.

E. Executive Order 13132—Federalism

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

Under section 6(b) of 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. Under section 6(c) of Executive Order 13132, EPA 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.

The EPA has concluded that this proposed rule may have federalism implications. The proposed rule establishes Federal standards for the administration of the PSD program by State reviewing authorities. However, the proposed rule does not impose additional requirements on State reviewing authorities because a PSD increment analysis is already required under existing regulations. In addition, EPA proposes in this action to make clear that States have discretion to use their best judgment in conducting elements of the increment consumption analysis. Thus, this rule will not impose substantial direct compliance costs on State or local governments, nor will it preempt State law. Thus, the requirements of sections 6(b) and 6(c) of the Executive Order do not apply to this rule.

Consistent with EPA policy, EPA nonetheless consulted with several State officials and representatives of State governments early in the process of developing the proposed regulation to permit them to have meaningful and timely input into its development. As

discussed above, this proposal has been informed by the recommendations of the Western States Air Resources Council (WESTAR) PSD Reform Workgroup, which is an organization that includes State officials who have sought greater clarity in methodologies for evaluating consumption of the PSD increment. In addition, EPA has also been consulting for several years with State officials in North Dakota about the parameters for the increment consumption analysis.

In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicits comment on this proposed rule from State and local officials.

F. Executive Order 13175—Consultation and Coordination With Indian Tribal Governments

Executive Order 13175, entitled ''Consultation and Coordination with Indian Tribal Governments'' (65 FR 13175, November 9, 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.'' The EPA has concluded that this proposed rule may have tribal implications. However, it will neither impose substantial direct compliance costs on tribal governments, nor preempt Tribal law.

By refining our existing regulations and policy, this proposal may affect how reviewing authorities determine increment consumption on the tribal lands that have been redesignated to Class I or are in the process of being redesignated to Class I. For that reason, EPA will provide an opportunity for meaningful and timely involvement in this action by consulting, during the period between proposal and promulgation, with tribal officials from the six Tribes whose reservations have been redesignated from Class II to Class I or are in the process of being so redesignated. In addition, EPA specifically solicits additional comment on this proposed rule from all tribal officials.

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

Executive Order 13045, entitled ''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 proposed rule is not subject to the Executive Order because it is not economically significant as defined in Executive Order 12866, and because the Agency does not have reason to believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. The proposed rule does not impose any new regulatory or analytical requirements, but simply refines existing regulations and policy with respect to the PSD increment consumption analysis that is currently required. The public is invited to submit or identify peer-reviewed studies and data, of which the Agency may not be aware, that may be pertinent to the effect of this proposed rule on children.

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

This rule is not a ''significant energy action'' as defined in Executive Order 13211, ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use'' (66 FR 28355 (May 22, 2001)) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Further, we have concluded that this rule is not likely to have any adverse energy effects because it does not impose any new requirements on sources that supply, distribute, or use energy. The proposed rule does not establish additional regulatory or analytical requirements, but simply refines existing regulations and policy with respect to the PSD increment consumption analysis that is currently required.

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

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

The EPA has determined that this proposed rule would not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it does not affect the level of protection provided to human health or the environment. The proposed rule does not establish or eliminate regulatory or analytical requirements, but simply refines existing regulations and policy with respect to the PSD increment consumption analysis that is currently required.

J. National Technology Transfer and Advancement Act

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

This proposed rulemaking does not involve technical standards. Therefore, EPA did not consider the use of any voluntary consensus standards.

VIII. Statutory Authority

The statutory authority for this action is provided by sections 163, 166, 169(4), and 301(a) of the Act as amended (42 U.S.C. 7473, 7476, 7479(4), and 7601(a)). This notice is also subject to section 307(d) of the CAA (42 U.S.C. 7607(d)).

List of Subjects

40 CFR Part 51

Environmental protection, Administrative practice and procedures, Air pollution control, Intergovernmental relations.

40 CFR Part 52

Environmental protection, Administrative practice and procedures, Air pollution control, Intergovernmental relations.

Dated: May 24, 2007.

Stephen L. Johnson,

Administrator.

For the reasons stated in the preamble, title 40, chapter I of the Code of Federal Regulations is proposed to be amended as set forth below.

PART 51—[AMENDED]

1. The authority citation for part 51 continues to read as follows:

Authority: 23 U.S.C. 101; 42 U.S.C. 7401–7671q.

Subpart I—[Amended]

2. Section 51.166 is amended as follows:

a. By revising paragraph (b)(13);

b. By revising paragraph (b)(21)(i);

c. By revising paragraph (f);

d. By removing from paragraph (p)(5)(i) the cross reference to ''(q)(4)'' and adding in its place ''(p)(4)'';

e. By removing from paragraphs (p)(5)(iii) and (p)(6)(iii) the cross reference to ''(q)(7)'' and adding in its place ''(p)(7)''; and

f. By removing from paragraph (p)(7) the cross reference to ''(q)(5) or (6)'' and adding in its place ''(p)(5) or (6)''.

The revisions read as follows:

§ 51.166 Prevention of significant deterioration of air quality.

* * * * *

(b) * * *

(13)(i) *Baseline concentration* means that ambient concentration level that exists in the baseline area at the time of the applicable minor source baseline date. A baseline concentration is determined for each pollutant for which a minor source baseline date is established and shall include:

(*a*) The actual emissions, as defined in paragraph (f)(1) of this section, representative of sources in existence on the applicable minor source baseline date, except as provided in paragraph (b)(13)(ii) of this section; and

(*b*) The allowable emissions of major stationary sources that commenced construction before the major source baseline date, but were not in operation by the applicable minor source baseline date.

(ii) The following will not be included in the baseline concentration and will affect the applicable maximum allowable increase(s):

(*a*) Actual emissions, as defined in paragraph (f)(1) of this section, from any major stationary source on which construction commenced after the major source baseline date; and

(*b*) Actual emissions increases and decreases, as defined in paragraph (f)(1) of this section, at any source (including stationary, mobile, and area sources) occurring after the minor source baseline date.

* * * * *

(21)(i) *Actual emissions* means the actual rate of emissions of a regulated NSR pollutant from an emissions unit, as determined in accordance with paragraphs (b)(21)(ii) through (iv) of this section, except that this definition shall not apply for calculating whether a significant emissions increase has occurred, for establishing a PAL under paragraph (w) of this section, or for determining consumption of ambient air increments. Instead, paragraphs (b)(40), (b)(47), and (f)(1) of this section shall apply for those purposes.

* * * * *

(f) *Methods for determining increment consumption.*

(1) *Actual emissions.* For purposes of determining consumption of the ambient air increments set forth in paragraph (c) of this section, the plan shall define ''actual emissions'' in accordance with paragraphs (f)(1)(i) through (vii) of this section.

(i) Actual emissions shall be calculated based on information that, in the judgment of the reviewing authority, provides the most reliable, consistent, and representative indication of the emissions from a unit or group of units in an increment consumption analysis as of the baseline date and on subsequent dates. In general, actual emissions for a specific unit should be calculated using the unit's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period. However, where records of actual operating hours, production rates, and composition of materials are not available or are incomplete, the reviewing authority shall use its best professional judgment to estimate these parameters from available information in accordance with the criteria in this paragraph. When available and consistent with the criteria in this paragraph, data from continuous emissions monitoring systems may be used.

(ii) In general, when evaluating consumption of an increment averaged over an annual time period, actual emissions as of a particular date in an increment consumption analysis (the applicable baseline date or the current time period) shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a consecutive 24-month period which precedes the particular date and which is representative of normal source operation.

(iii) When evaluating consumption of an increment averaged over a period of less than 1 year (i.e., 24-hour or 3-hour averaging), actual emissions as of a particular date in an increment consumption analysis (the applicable baseline date or the current time) may equal the average rate, for the applicable averaging time, at which the unit actually emitted the pollutant during a consecutive 24-month period which precedes the particular date. The average rate may be calculated by dividing an annual rate by the number of hours the unit was actually operating over the annual period. The reviewing authority may use an actual maximum rate over a 24-month period when sufficient data are available to produce a consistent, reliable, and representative analysis of the change in emissions from baseline to the current time period.

(iv) The reviewing authority may allow actual emissions to be based on a different time period than the 24 months preceding a particular date upon a determination that such period is more representative of normal source operation as of the particular date, based upon credible information showing that the unit's operations in the 24 months preceding the date were not typical of operations as of the particular date. A period after the particular date may be used, but only if such period is more representative of normal source operations as of the particular date. Operations occurring prior to a particular date are not representative of normal source operations for a particular date if they permanently ceased more than 24 months prior to that date. The different time period shall be a consecutive 24-month period unless two non-consecutive 12-month periods are demonstrated to be more representative of normal source operation as described above.

(v) The reviewing authority may use source-specific allowable emissions for the unit instead of the actual emissions of the unit.

(vi) For any modified emissions unit that has not resumed normal operations on the date of an increment consumption analysis, the actual emissions on the date the source begins operation shall equal the projected actual emissions of the unit on that date. For any new emissions unit that has not begun normal operations on the date of an increment consumption analysis, the actual emissions on the date the new source begins operations shall equal the potential to emit for that source.

(vii) To the extent any requirement of this paragraph (f)(1) conflicts with a recommendation in appendix W of this part, paragraph (f)(1) shall control.

(2) *Exclusions from increment consumption.* (i) The plan may provide that the following concentrations shall be excluded in determining compliance with a maximum allowable increase:

(*a*) Concentrations attributable to the increase in emissions from stationary sources which have converted from the use of petroleum products, natural gas, or both by reason of an order in effect under section 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) over the emissions from such sources before the effective date of such an order;

(*b*) Concentrations attributable to the increase in emissions from sources which have converted from using natural gas by reason of natural gas curtailment plan in effect pursuant to the Federal Power Act over the emissions from such sources before the effective date of such plan;

(*c*) Concentrations of particulate matter attributable to the increase in emissions from construction or other temporary emission-related activities of new or modified sources;

(*d*) The increase in concentrations attributable to new sources outside the United States over the concentrations attributable to existing sources which are included in the baseline concentration;

(*e*) Concentrations attributable to the temporary increase in emissions of sulfur dioxide, particulate matter, or nitrogen oxides from stationary sources which are affected by plan revisions approved by the Administrator as meeting the criteria specified in paragraph (f)(2)(iii) of this section; and

(*f*) Concentrations attributable to sources that obtained a permit based on a variance issued pursuant to paragraph (p)(4) of this section, but only with respect to the Class I increment in the area for which the variance was issued. Concentrations attributable to such sources shall continue to be included in determining compliance with the maximum allowable increase set forth in paragraphs (p)(4).

(ii) If the plan provides that the concentrations to which paragraph (f)(2)(i)(*a*) or (*b*) of this section refers shall be excluded, it shall also provide that no exclusion of such concentrations shall apply more than 5 years after the effective date of the order to which paragraph (f)(2)(i)(*a*) of this section refers, or the plan to which paragraph (f)(2)(i)(*b*) of this section refers, whichever is applicable. If both such order and plan are applicable, no such exclusion shall apply more than 5 years after the later of such effective dates.

(iii) For purposes of excluding concentrations pursuant to paragraph (f)(2)(i)(*e*) of this section, the Administrator may approve a plan revision that:

(*a*) Specifies the time over which the temporary emissions increase of sulfur dioxide, particulate matter, or nitrogen oxides would occur. Such time is not to exceed 2 years in duration unless a longer time is approved by the Administrator.

(*b*) Specifies that the time period for excluding certain contributions in accordance with paragraph (f)(2)(iii)(*a*) of this section, is not renewable;

(*c*) Allows no emissions increase from a stationary source which would:

(*1*) Impact a Class I area or an area where an applicable increment is known to be violated; or

(*2*) Cause or contribute to the violation of a national ambient air quality standard;

(*d*) Requires limitations to be in effect the end of the time period specified in accordance with paragraph (f)(2)(iii)(*a*) of this section, which would ensure that the emissions levels from stationary sources affected by the plan revision would not exceed those levels occurring from such sources before the plan revision was approved.

* * * * *

PART 52—[AMENDED]

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

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

Subpart A—[Amended]

4. Section 52.21 is amended as follows:

a. By revising paragraph (b)(13);

b. By revising paragraph (b)(21)(i);

c. By adding paragraph (f);

d. By removing from paragraph (p)(6) the cross reference to ''(q)(4)'' and adding in its place ''(p)(5)'';

e. By removing from paragraphs (p)(6) and (p)(7) the cross reference to ''(q)(7)'' and adding in its place ''(p)(8)''; and

f. By removing from paragraph (p)(8) the cross reference to ''(q)(5) or (6)'' and adding in its place ''(p)(6) or (7)''.

The addition and revisions read as follows:

§ 52.21 Prevention of significant deterioration of air quality.

* * * * *

(b) * * *

(13)(i) *Baseline concentration* means that ambient concentration level that exists in the baseline area at the time of the applicable minor source baseline date. A baseline concentration is determined for each pollutant for which a minor source baseline date is established and shall include:

(*a*) The actual emissions, as defined in paragraph (f)(1) of this section, representative of sources in existence on the applicable minor source baseline date, except as provided in paragraph (b)(13)(ii) of this section; and

(*b*) The allowable emissions of major stationary sources that commenced construction before the major source baseline date, but were not in operation by the applicable minor source baseline date.

(ii) The following will not be included in the baseline concentration and will affect the applicable maximum allowable increase(s):

(*a*) Actual emissions, as defined in paragraph (f)(1) of this section, from any major stationary source on which construction commenced after the major source baseline date; and

(*b*) Actual emissions increases and decreases, as defined in paragraph (f)(1) of this section, at any source (including stationary, mobile, and area sources) occurring after the minor source baseline date.

* * * * *

(21)(i) *Actual emissions* means the actual rate of emissions of a regulated NSR pollutant from an emissions unit, as determined in accordance with paragraphs (b)(21)(ii) through (iv) of this section, except that this definition shall not apply for calculating whether a significant emissions increase has occurred, for establishing a PAL under paragraph (aa) of this section, or for determining consumption of ambient air increments. Instead, paragraphs (b)(41), (b)(48), and (f)(1) of this section shall apply for those purposes.

* * * * *

(f) *Methods for determining increment consumption*—(1) *Actual emissions.* For purposes of determining consumption of the ambient air increments set forth in paragraph (c) of this section, the term ''actual emissions'' shall be defined in accordance with paragraphs (f)(1)(i) through (vii) of this section.

(i) Actual emissions shall be calculated based on information that, in the judgment of the Administrator, provides the most reliable, consistent, and representative indication of the emissions from a unit or group of units in an increment consumption analysis as of the baseline date and on subsequent dates. In general, actual emissions for a specific unit should be calculated using the unit's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period. However, where records of

actual operating hours, production rates, and composition of materials are not available or are incomplete, the Administrator shall use his or her best professional judgment to estimate these parameters from available information in accordance with the criteria in this paragraph. When available and consistent with the criteria in this paragraph, data from continuous emissions monitoring systems may be used.

(ii) In general, when evaluating consumption of an increment averaged over an annual time period, actual emissions as of a particular date in an increment consumption analysis (the applicable baseline date or the current time period) shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a consecutive 24-month period which precedes the particular date and which is representative of normal source operation.

(iii) When evaluating consumption of an increment averaged over a period of less than one year (i.e., 24-hour or 3-hour averaging), actual emissions as of a particular date in an increment consumption analysis (the applicable baseline date or the current time) may equal the average rate, for the applicable averaging time, at which the unit actually emitted the pollutant during a consecutive 24-month period which precedes the particular date. The average rate may be calculated by dividing an annual rate by the number of hours the unit was actually operating over the annual period. The Administrator may use an actual maximum rate over a 24-month period when sufficient data are available to produce a consistent, reliable, and representative analysis of the change in emissions from baseline to the current time period.

(iv) The Administrator may allow actual emissions to be based on a different time period than the 24 months preceding a particular date upon a determination that such period is more representative of normal source operation as of the particular date, based upon credible information showing that the unit's operations in the 24 months preceding the date were not typical of operations as of the particular date. A period after the particular date may be used, but only if such period is more representative of normal source operations as of the particular date. Operations occurring prior to a particular date are not representative of normal source operations for a particular date if they permanently ceased more than 24 months prior to that date. The different time period shall be a consecutive 24-month period unless two non-consecutive 12-month periods are demonstrated to be more representative of normal source operation as described above.

(v) The Administrator may use source-specific allowable emissions for the unit instead of the actual emissions of the unit.

(vi) For any modified emissions unit that has not resumed normal operations on the date of an increment consumption analysis, the actual emissions on the date the source begins operation shall equal the projected actual emissions of the unit on that date. For any new emissions unit that has not begun normal operations on the date of an increment consumption analysis, the actual emissions on the date the new source begins operations shall equal the potential to emit for that source.

(vii) To the extent any requirement of this paragraph (f)(1) conflicts with a recommendation in 40 CFR part 51, appendix W, paragraph (f)(1) shall control.

(2) *Exclusions from increment consumption.* In determining compliance with the maximum allowable increase, the Administrator shall exclude concentrations attributable to sources that obtained a permit based on a variance issued pursuant to paragraphs (p)(5) of this section, but only with respect to the Class I increment in the area for which the variance was issued. Concentrations attributable to such sources shall continue to be included in determining compliance with the maximum allowable increases set forth in paragraph (p)(5).

* * * * *

[FR Doc. E7–10459 Filed 6–5–07; 8:45 am]

BILLING CODE 6560–50–P