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Part II

**Environmental
Protection Agency**

40 CFR Part 51, et al.
Enhanced Monitoring Program; Proposed
Rule

ENVIRONMENTAL PROTECTION AGENCY**40 CFR Parts 51, 52, 60, 61 and 64**

[IL-64-2-5807; FRL-4787-6]

RIN 2060-AD18

Enhanced Monitoring Program**AGENCY:** Environmental Protection Agency (EPA).**ACTION:** Proposed rule; notice of opportunity for public hearing.

SUMMARY: Pursuant to the Clean Air Act (the Act) the EPA is proposing a new Enhanced Monitoring Program, including both new regulations and certain amendments to several existing air pollution program regulations. The program would require owners or operators of both major stationary sources of non-hazardous air pollutants and of sources subject to existing national emission standards for hazardous air pollutants, to perform enhanced monitoring at significant emissions units of air pollution. The proposed rule would require that enhanced monitoring data be used to determine the compliance status of affected emissions units with certain applicable emission limitations or standards.

The proposed rule would establish the criteria and procedures that owners or operators must satisfy in evaluating, selecting and demonstrating enhanced monitoring, and would include appendices containing enhanced monitoring performance and quality assurance requirements. Proposed reporting and recordkeeping requirements would identify the basis, content, frequency and other requirements for enhanced monitoring reports. The reporting requirements would also specify that enhanced monitoring data be used by an owner or operator to certify compliance pursuant to 40 CFR part 70 for those applicable requirements subject to enhanced monitoring. Finally, the proposed amendments to existing regulations would clarify that the enhanced monitoring program could be implemented through preconstruction permits issued under the Act and that enhanced monitoring and certain other information collected could be used to determine compliance with applicable emission limitations or standards.

DATES: Comments on the proposed rule must be received by December 20, 1993. The EPA will hold a public hearing in Washington, DC on the proposed regulations on November 19, 1993. Requests to present oral testimony must

be received on or before November 5, 1993. If possible, comments should be sent in both computerized form and hardcopy. Comments generated using word processing software should be sent on a clearly labeled, 3.5 inch IBM-compatible diskette. Comments formatted in WordPerfect 5.0 or 5.1 may be submitted as is; comments prepared by other word processing software, should be submitted in an "unformatted" mode. All comments submitted in hardcopy should be submitted in duplicate. Comments should refer to page numbers and columns whenever possible.

Docket: Supporting information used in developing the proposed regulations is contained in Docket No. A-91-52. This docket is available for public inspection and copying between 8:30 a.m. and 3:30 p.m. Monday through Friday, at the address listed below. A reasonable fee may be charged for copying.

ADDRESSES: Comments must be mailed (in duplicate, if possible) to: EPA Air Docket (LE-131), Attention: Docket No. A-91-52, room M-1500, Waterside Mall, 401 M Street SW., Washington, DC 20460. The public hearing will be held in the Waterside Mall auditorium at the EPA's Washington, DC Headquarters Office on November 19, 1993. Persons interested in attending the hearing or wishing to present oral testimony should contact Mr. Keith Brown, Stationary Source Compliance Division (EN-341W), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460, telephone (703) 308-8676.

FOR FURTHER INFORMATION CONTACT: Keith Brown at (703) 308-8676.

SUPPLEMENTARY INFORMATION: The contents of the preamble are listed in the following outline:

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The first section of this preamble provides background on the statutory provisions under the Act that require owners or operators of stationary sources to perform enhanced monitoring and to submit compliance certifications. This section also provides information on the purpose, basic options, and the expected benefits of the proposed enhanced monitoring program. This section also relates the proposed enhanced monitoring program to the compliance certification requirements of 40 CFR part 70.

The second section explains the implementation principles EPA has followed while developing the proposed regulations, and EPA's position on associated issues. These implementation principles should be considered when the reader reviews the preamble and proposed regulations.

The third section provides a summary of the general approach EPA has taken in developing the proposed regulations.

The fourth section of the preamble presents a summary of each section of the proposed enhanced monitoring program. This section includes background on the provisions and a discussion of issues that EPA has identified and would like especially to be considered during the public comment period.

The fifth section then provides discussion on relationships between the enhanced monitoring program and other provisions of the Act. The sixth and final section of the preamble contains

the administrative requirements that accompany Federal regulatory actions.

The preamble includes many citations which refer the reader to more detailed discussions of a topic or to the origin of certain requirements. These citation sections will generally not be followed by their origin, such as "of this preamble" or "of the Act." Rather, the reader can recognize the origins of the sections by their nature: sections of the preamble begin with a Roman numeral; sections of the proposed regulations range from §§ 64.1 to 64.8; sections of existing EPA regulations are preceded by 40 CFR; and sections of the Act are referenced by a three digit number, such as 114 or 504.

This preamble often refers to "State" or "permitting authority." The reader should assume that where the preamble refers to a "State," such term also includes local air pollution agencies, Indian tribes, and territories of the United States to the extent they are or will be the permitting authority for their area or have been or will be delegated permitting responsibilities under the Act. In addition, the term "permitting authority" would also include EPA to the extent EPA is the permitting authority of record.

Finally, this preamble often refers to 40 CFR part 70, the regulations promulgated July 21, 1992, implementing the operating permits program under title V of the Act (see 57 FR 32250). Those regulations provide requirements applicable to federally-approved, State-administered operating permits programs. Where a State fails to submit an approvable program or to adequately administer and enforce an approved program, EPA will have to promulgate, administer and enforce a Federal program for issuing permits in that State. The reader should assume that where the preamble refers to 40 CFR part 70, such term may also refer to an EPA-administered (Federal) operating permits program, which may be promulgated under another part of 40 CFR.

I. Background and Purpose

A. Statutory Authority

The proposed regulations respond principally to the statutory mandate in section 702(b) of the Clean Air Act Amendments of 1990, Public Law 101-549, 104 Stat. 2399, which requires the Administrator of EPA to promulgate rules on enhanced monitoring and compliance certifications. Section 702(b) of the 1990 Amendments revised section 114(a) of the Act by adding a new paragraph (3) that provides, in part:

The Administrator shall in the case of any person which is the owner or operator of a major stationary source, and may, in the case of any other person, require enhanced monitoring and submission of compliance certifications. Compliance certifications shall include (A) identification of the applicable requirement that is the basis of the certification, (B) the method used for determining the compliance status of the source, (C) the compliance status, (D) whether compliance is continuous or intermittent, (E) such other facts as the Administrator may require * * *

The 1990 Amendments also revised section 114(a)(1) of the Act to provide additional authority concerning monitoring, reporting, and recordkeeping requirements. As amended, that section provides the Administrator with the authority to require any owner or operator of a source:

On a one-time, periodic or continuous basis to—

(A) Establish and maintain such records;

(B) Make such reports;

(C) Install, use, and maintain such monitoring equipment * * *

(D) Sample such emissions (in accordance with such procedures or methods, at such locations, at such intervals, during such periods and in such manner as the Administrator shall prescribe);

(E) Keep records on control equipment parameters, production variables, or other indirect data when direct monitoring of emissions is impractical;

(F) Submit compliance certifications in accordance with section 114(a)(3); and

(G) Provide such other information as the Administrator may reasonably require * * *.

In addition, related provisions under title V of the Act specify that operating permits must include requirements for monitoring and compliance certification. Section 504(c) requires that each permit must set forth "monitoring, compliance certification and reporting requirements to assure compliance with the permit terms and conditions." Section 504(b) permits the Administrator to promulgate appropriate test methods and monitoring requirements for determining compliance. That section states that "continuous emissions monitoring need not be required if alternative methods are available that provide sufficiently reliable and timely information for determining compliance." Because this section directly refers to promulgating monitoring requirements for determining compliance, the proposal

cites this section in addition to section 114(a)(3) as explicit authority for the proposed regulations.

Section 504(a) states that permits shall include "a requirement that the permittee submit to the permitting authority, no less often than every six months, the results of any required monitoring, and such other conditions as are necessary to assure compliance with applicable requirements of the Act." Section 503(b)(2) states that permitted sources must certify compliance with any applicable permit requirements "no less frequently than annually * * * and promptly report any deviation from permit requirements to the permitting authority."

The 1990 Amendments also revised section 113 to clarify what evidence may be used to prove violations of the Act. Section 113(e), as amended, provides that "the duration" of a violation may be established "by any credible evidence (including evidence other than the applicable test method)." The Legislative history for this provision states that by this amendment, Congress meant to clarify that, in an enforcement action, "courts may consider any evidence of violation or compliance admissible under the Federal Rules of Evidence, and that they are not limited to consideration of evidence that is based solely on the applicable test method in the State implementation [sic] or regulation." (S. Rep. No. 228, 101st Cong., 1st Sess., 366 (1989) *reprinted in* 1990 U.S. Code Cong. & Admin. News 3385, 3749.)

Coupled with these changes to section 113, section 114(a)(3) specifically requires that a certification be based upon a determination of whether compliance was continuous or intermittent. Therefore, the enhanced monitoring protocol must collect data that can be used to document compliance and facilitate enforcement of documented violations. Congress noted in a Senate Committee Report that "similar to the reporting requirements of the Clean Water Act, 33 U.S.C. 1342, compliance certifications and emission data submitted pursuant to this [section 114(a)(3)] authority will facilitate enforcement, due in part to the fact that such data and certifications can be used as evidence." (S. Rep. 228, 101st Cong., 1st Sess., at 368 (1989)). Similarly, a House Committee Report stated that this section "confirms that EPA has authority under section 114(a) to require enhanced monitoring and to require such monitoring in compliance certifications." (H.R. Rep. 490, 101st Cong. 2d Sess., pt. 1, at 394 (1990)). Thus, Congress linked enhanced monitoring and compliance

certifications, with the idea that enhanced monitoring data would serve as the basis for certifying compliance and could be used to determine the existence of an enforceable violation.

In this proposal, EPA is proposing a new part 64 to respond to the direct mandate in section 114(a)(3). To assure that this mandate is carried out effectively and in a manner that responds to amended section 113, EPA also is proposing as part of this proposal revisions to portions of 40 CFR parts 51, 52, 60 and 61. These proposed revisions include proposed Federal implementation language that will be incorporated into SIP's for States that do not adequately respond to a SIP Call that EPA will issue in February 1994. See sections III.B, IV.J, and IV.K. below. For these proposed revisions to 40 CFR parts 51, 52, 60, and 61, EPA is relying on the procedural requirements of section 307(d) of the Act.

B. Alternatives Considered

One clear objective inherent in all of these statutory provisions is to assure that owners or operators are accountable for their emissions and compliance status on a continuous basis. Thus, these proposed regulations would require that the owners or operators of all major sources of non-hazardous air pollutants, or any permitted emissions unit subject to existing hazardous air pollutant requirements under 40 CFR part 61, conduct enhanced monitoring for the purpose of determining their compliance status and report on that status in compliance certifications.

To achieve that objective in a cost-effective manner that is integrated with other regulatory initiatives under the Act, EPA investigated alternatives for three separate decisions. First, EPA considered the degree to which the proposed regulations should prescribe enhanced monitoring requirements. Second, EPA considered to which regulated air pollutants and sources the proposed regulations should apply. Finally, the Agency considered in what manner the proposed regulations could ensure that enhanced monitoring provides a determination of whether compliance is continuous or intermittent, as mandated by section 114(a)(3).

1. Enhanced Monitoring Prescriptiveness

With respect to enhanced monitoring prescriptiveness, one possible option for achieving accountability would be to obtain the most accurate, timely and reliable data that is technologically feasible. For some sources, that option would entail the frequent use of

reference test method procedures, while for others it would entail use of continuous emission monitoring systems (CEMS's). This "top-down" option was rejected by EPA as too burdensome and as inconsistent with congressional recognition under section 504(b) that other monitoring options may provide sufficiently reliable and timely information to determine compliance. The EPA solicits comments on the proposal to reject this option.

A second option considered was to specify the precise enhanced monitoring requirements for each major source category. That option was considered impractical given the short time period for issuing the enhanced monitoring program, the large number of source categories affected, and the Agency resource commitments that approach would require. The EPA solicits comments on the proposal to reject this option, including comments as to whether it may be feasible to develop specific requirements for a limited number of source categories and use the general requirements in the proposed regulations for all other source categories. For those comments that support the development of specific requirements, EPA also solicits comments on which source categories should have specific requirements.

A third option considered was to specify technical criteria that an enhanced monitoring protocol must achieve and then allow an owner or operator to demonstrate that its proposed enhanced monitoring protocol is the best monitoring for its particular emissions unit that could achieve these criteria. This option forms the basis for the proposal. It provides the owner or operator with significant flexibility in proposing the type of monitoring that best fits the owner or operator's circumstances, while at the same time assuring that all proposed monitoring methodologies meet the technical criteria that would ensure that a proposed protocol provides quality-assured, representative monitoring data that can be used to determine continuous compliance as required by section 114(a)(3).

It is important to note that the term "best" as would be used in the proposed regulations is not intended to require a top-down selection process that focuses on the best monitoring system that is technically and economically feasible. Rather, the term "best" focuses on what monitoring can best provide an assurance that a particular emissions unit remains in compliance. This use of the term "best" would require evaluating several site-specific factors, such as emissions unit and control

system design, operating processes at the facility, the demonstrated margin of compliance and the potential variability of emissions.

For instance, the best monitoring for determining continuous compliance at a large uncontrolled SIP industrial boiler burning high sulfur coal that results in emissions close to the SIP emission limit may be a CEMS given the potential variability in the fuel. However, the best system for a similar uncontrolled boiler burning fuel oil may be a fuel sampling and analysis program. The assurance of continuing compliance, and not the technological elements of the monitoring, would be the appropriate measure of what is "best."

The selection approach described above would serve as the basis for the proposed regulations. However, to ensure that owners or operators make informed proposals and to ensure that the permitting authority has adequate information to act upon proposed enhanced monitoring protocols, the proposed regulations would include some additional evaluation procedures for the enhanced monitoring protocol selection process.

The first option for evaluating a monitoring methodology that could be used as enhanced monitoring would be to consider the best "established monitoring." The proposed regulations would define this term to include monitoring that has been established in certain previous regulatory actions governing many source categories. The EPA believes that the use of established monitoring should serve to decrease the burden on permitting authorities because these methods are familiar and will increase the standardization of the selection process. The second option that an owner or operator would have is to identify all technologically feasible monitoring approaches in order to select the best monitoring methodology for a particular emissions unit that can satisfy all of the requirements for an enhanced monitoring protocol. These monitoring approaches would include both established monitoring and other monitoring identified by the owner or operator. This evaluation process is discussed in further detail in section III. A.

The proposed regulations would use the operating permits program as the primary vehicle for implementing the evaluation and selection process described above. The owner or operator would include its proposed enhanced monitoring protocol and supporting information as part of a permit application. The permitting authority would then review and approve or deny the proposed protocol as part of its

permit issuance process. The performance of verification tests to certify that the protocol achieves technical specifications and requirements then would occur after permit issuance in order to finally demonstrate that the enhanced monitoring protocol achieves all of the requirements of the proposed regulations.

The operating permits program will provide a vehicle for selecting the best monitoring for emissions units at a particular source. Provided that the criteria in the proposed regulations are satisfied, a broad range of monitoring approaches may be approved as the best monitoring at a particular emissions unit. Depending on the circumstances at the emissions unit being monitored, enhanced monitoring could involve procedures such as maintaining records of, analyzing, and reporting on fuel or raw material usage, or systems such as control device parameter monitors or continuous emission monitoring systems. The types of monitoring procedures and systems that could be used under the proposed regulations are discussed in section III.A.

The reader should note that the proposed regulations also would be implemented through the preconstruction permit programs for new and modified sources under parts C and D of title I of the Act. Selection of enhanced monitoring at the preconstruction stage would assure that enhanced monitoring needs are considered in the design and construction of an emissions unit. Implementation through preconstruction permits would also allow for streamlined conversion of preconstruction permits into operating permits where a permitting authority separates the issuance of the two permits. The proposed amendments to 40 CFR part 51 and 40 CFR 52.21 in the proposal would assure that permitting authorities adopt sufficient legal authority to impose enhanced monitoring conditions in preconstruction permits. This issue is discussed in further detail in section V.C.

As stated in its operating permits rule, the Agency intends that title V permits contain all the requirements of the Act applicable to the permitted source. The title V process was not intended to establish more stringent or new requirements. However, the one exception is for compliance provisions required in all permits by title V and 40 CFR 70.6. The part 70 rule allows in some circumstances for the addition or clarification of compliance requirements—as opposed to new

emission limits or standards. For example, an addition might be made through this process to specify an averaging period or periodic monitoring requirement where the underlying standard fails to specify these elements as a part of the monitoring requirement. EPA continues to intend that the role of the title V permitting process is to express all of the underlying requirements applicable to the source.

2. Enhanced Monitoring Program Applicability

With respect to the scope of the proposed part 64 regulations, EPA considered several alternatives for defining the universe of sources, regulated air pollutants, emission limitations or standards, and emissions units that should be subject to the enhanced monitoring requirement. Section 114(a)(3) provides a general requirement that EPA must require enhanced monitoring at major stationary sources. However, section 114(a)(3) does not provide EPA with any further guidance as to which regulated air pollutants, emissions units, and emission limitations or standards at a major source must be covered by enhanced monitoring requirements.

In contrast, section 504(c) provides that each permit must include "inspection, entry, monitoring, compliance certification and reporting requirements to assure compliance with the permit terms and conditions." Furthermore, section 503(b)(2) requires a compliance certification for "any applicable permit requirements." Because of the language in these two title V sections, EPA has required monitoring and certification at all emissions units for all applicable requirements under the Act in 40 CFR part 70 because Congress clearly required in title V that all applicable requirements be subject to appropriate monitoring to "assure compliance."

Section 114(a)(3) does not contain such specific language regarding the scope of the part 64 program. Thus, Congress having remained silent on the precise question at issue, EPA believes the legislative branch was providing the Agency with broad discretion to determine what type of monitoring is enhancement enough for various emissions units at major sources. See *Chevron USA, Inc., v. Natural Resources Defense Council*, 456 U.S. 837 (1984). First, as a general rule, EPA has determined that the proposed rules should only apply to the units that emit pollutants for which the source is major. EPA believes that Congress's intent in requiring enhanced monitoring of major sources was an attempt to focus on

imposing monitoring most immediately on the sources that may emit a particular pollutant in large amounts. With respect to which emission limitations and standards are covered by the enhanced monitoring rule, EPA believes that part 64 should apply to all emission limitations and standards applicable to the pollutants for which the source is major and at an emissions unit subject to part 64. Finally, the following two subsections will describe the emissions units that would be subject to part 64.

EPA has divided the applicability requirement into two parts: hazardous air pollutants and other regulated pollutants. With respect to these two categories of pollutants, EPA independently explored the range of applicability.

a. *Hazardous Air Pollutant Sources.* Requirements for hazardous air pollutants under the Act include existing NESHAP requirements under 40 CFR part 61 and will include new standards developed under section 112 as amended by the 1990 Amendments. The EPA recognizes that both minor and major sources of hazardous air pollutants are of significant concern and warrant enhanced monitoring. Therefore, EPA intends to apply enhanced monitoring under section 114(a)(3) of the Act to as many hazardous air pollutant sources as possible.

First, with respect to sources subject to existing part 61 requirements, the proposed regulations would apply to any emissions unit required to obtain a permit (regardless of whether the source is a major or area source). The EPA is not required to establish enhanced monitoring for area sources under section 114(a)(3), but has been granted discretion to establish enhanced monitoring for those sources. Because of the significance of hazardous air pollutants, EPA believes that area sources that must also obtain permits under part 70 should develop methods for enhanced monitoring in the permit application process. However, asbestos demolition and renovation projects subject to subpart M of part 61 are exempt from the requirements of part 70. Because EPA is not requiring States to permit these sources and the permit program is the established method for implementing enhanced monitoring, EPA has exempted these sources from the requirements of part 64.

With respect to emissions units subject to new hazardous air pollutant requirements under amended section 112 of the Act, EPA will include appropriate enhanced monitoring requirements as part of those new

hazardous air pollutant requirements. This approach is consistent with EPA's statement in the July 21, 1992 preamble to 40 CFR part 70 that all future rulemakings will have no gaps in their monitoring provisions (see 57 FR 32278). Therefore, EPA will exercise its section 114(a)(3) authority to require enhanced monitoring for sources subject to new section 112 requirements in actions taken pursuant to the amended section 112. These actions include the general provisions of 40 CFR part 63 and the individual subparts of that new part, as well as case-by-case permit decisions in certain instances. The interrelationship between the proposed regulations and NESHAP regulatory development is discussed in further detail in Section V.B.

Finally, as to sources that achieve early reductions in accordance with the regulation promulgated pursuant to section 112(i)(5), 57 FR 61970 (Dec. 29, 1992), to be codified at 40 CFR 63.70 et seq., EPA believes that the monitoring required pursuant to the permits program is enhancement enough. The early reductions program is a temporary program; these sources will ultimately need to comply with the new standards being developed under section 112. The EPA believes that during this interim period, the monitoring requirements of the permits program will provide monitoring sufficient for these sources to certify compliance with applicable emission limitations.

b. Criteria Air Pollutant Sources. With respect to sources and emissions units that emit non-hazardous pollutants, EPA determined to use its discretion to limit the scope of applicability more than for hazardous air pollutants. First, EPA determined not to exercise its discretion to require enhanced monitoring at non-major sources at this time. With respect to the Act's undefined mandate to require enhanced monitoring at major stationary sources, EPA has determined that some proposed limitations on the applicability of part 64 at certain emissions units located at major stationary sources would be appropriate. In making that determination, EPA considered three factors: the statutory requirement of enhanced monitoring at major stationary sources, the results of its Regulatory Impact Analysis (RIA), and the monitoring requirements of the part 70 operating permits program.

EPA is required to perform an RIA pursuant to E.O. 12291 in order to assess the costs and benefits of the proposed rule and to maximize the net benefits to society. The RIA calculates net benefits in two ways. For attainment areas, the calculation involves weighing

health and welfare benefits associated with emissions reductions against the costs of complying with enhanced monitoring requirements. In nonattainment areas, the anticipated net benefits also include the avoided cost to the regulated source of alternative emission reduction regulations that would be necessary to achieve emission reductions required for attainment in the absence of enhanced monitoring requirements.

The RIA takes into account both the permitting authority burden costs and costs to the regulated community. The costs to the permitting authorities include costs associated with review and approval of proposed enhanced monitoring methods and subsequent review of monitoring reports. The costs analyzed for the regulated community include all aspects of implementing enhanced monitoring at a source. These include any one-time capital costs for purchasing and installing new monitoring equipment, and recurring annual costs for monitor operation and maintenance, quality assurance activities, and reporting, compliance certification, and recordkeeping burden costs. Because enhanced monitoring does not change the stringency of underlying standards or limitations, any costs associated with coming into compliance with these emissions limitations or standards by sources are not considered costs associated with this rule. The EPA solicits comments on this approach, and on whether other costs to the permitting authorities and regulated community should be incorporated in the analysis.

Because of EPA's uncertainty as to the scope of applicability, the Agency established a range of options in the RIA for imposing the enhanced monitoring rule to units at major stationary sources. The RIA explored in detail five gradations of coverage for the part 64 requirements:

- (1) All units emitting pollutants for which the source is major (Option 1);
- (2) All units that have the potential to emit pollutants in an amount equal to or greater than 10% of the applicable major source definition (Option 2);
- (3) All units that have the potential to emit pollutants in an amount equal to or greater than 30% of the applicable major source definition (Option 3);
- (4) All units that have the potential to emit pollutants in an amount equal to or greater than 50% of the applicable major source definition (Option 4); and
- (5) All units that have the potential to emit pollutants in an amount equal to or greater than the applicable major source definition (Option 5).

The EPA also considered the fact that the regulations developed under part 70 require monitoring at all emissions units at a major source. The monitoring required by part 70 in many instances will be an enhancement over the existing monitoring at an emissions unit. In this sense, many units will have established some enhancement through the permit process even in the absence of part 64. For the other units covered by part 70 monitoring, EPA believes the existing monitoring is sufficiently enhanced.

Based on the three factors discussed above, EPA has decided not to propose Option 5. The EPA recognized that under that option, many major stationary sources would avoid any additional monitoring beyond that required by part 70. The RIA analysis indicates that only 47 percent of all major stationary sources would be subject to the part 64 requirement at one or more emissions units. In addition, this option would have the undesirable effect of excluding many significant emissions units from the part 64 enhanced monitoring requirements. For example, a source with several 90 tons per year emissions units would avoid any part 64 enhanced monitoring requirement. By contrast, a source consisting of one 110 tons per year unit would be subject to part 64 enhanced monitoring under this option. Finally, the RIA indicates that this option would not present the greatest net benefits (i.e., further net benefits are achieved by moving to Option 4). Therefore, balancing the fact that Option 5 would require part 64 monitoring at less than 50 percent of all major stationary sources with the fact that it did not produce the greatest net savings, EPA determined that Option 5 would not be an acceptable proposed approach.

As to the remaining options, EPA determined that there were positive and negative factors supporting each option. Option 1 would ensure that part 64 monitoring is performed at all emissions units that emit the pollutant for which the source is major. However, this option also would provide the lowest net benefits of the options considered. The RIA estimates the loss of net benefits of moving from Option 4 (which would maximize net benefits, i.e. any other option selected would result in net costs) to Option 1 at \$735 million; in addition, the RIA indicated that the marginal cost of obtaining further emission reductions by moving from Option 4 to Option 1 would be extremely high (approximately \$11,750 per ton). Option 2, while ensuring that approximately 82 percent of all major stationary sources would be subject to

the part 64 requirements at one or more emissions units, also would result in lower net benefits (\$197 million less) than those provided under Option 4; in addition, the RIA indicates that the costs for the incremental emission reductions would remain high (approximately \$5600 per ton).

Although the RIA indicates that Option 4 would maximize net benefits, only 56 percent of all major stationary sources would have emissions units subject to the part 64 requirements under this option. Moreover, Option 4 would require part 64 monitoring at less than 1/3 of all regulated emissions units at major stationary sources that emit the pollutant for which the source is major, leaving some significant emissions units to be regulated by the monitoring requirements of part 70. While EPA believes that there would be some support for this option because of the application of part 70 periodic monitoring requirements at the remaining major stationary sources, the Agency questions whether that monitoring would be sufficiently enhanced for the potentially large emissions units that would not be subject to part 64 enhanced monitoring.

Finally, Option 3 would provide increased coverage of major stationary sources—65 percent of all stationary sources that are major for one or more criteria pollutants—and the RIA indicates that the additional emission reductions that could be achieved from moving from Option 4 to 3 would be reasonable in light of the projected additional costs achieved (approximately \$3000 per ton of additional emissions reduced). The EPA also believes that many of the additional emissions units that would be subject to part 64 monitoring under Option 3 should be considered significant emissions units that warrant part 64 enhanced monitoring.

Because Option 3 appears to be the best approach when balancing the three factors described earlier, EPA has selected this option for the proposed rule. Option 3 would ensure part 64 enhanced monitoring at one or more emissions units at a significant number of major stationary sources (65 percent). The remaining major sources would still be subject to monitoring under part 70 that EPA views as "enhanced" for units that size. Moreover, those emissions units that would be required to meet only the part 70 monitoring requirements would be those with the potential to emit less than 30 percent of the pollutant for which the source is major, presumably the less significant units.

EPA solicits comment on its proposed general approach, the proposal to adopt Option 3 as the best approach. We are also interested in soliciting comments on any or all options appropriate for consideration, especially Option 1 which is the most inclusive, and Options 4 and 5, which have the highest net benefits. With respect to the decision to cover only units that emit the pollutant for which the source is major, EPA solicits comment on the policy and legal implications of the decision. As an alternative basis for not applying the part 64 requirements to certain units, EPA also solicits comments on the possible use of a de minimis exception to exempt certain units from the part 64 monitoring requirements in light of the general statutory requirement that EPA require enhanced monitoring at major stationary sources. EPA believes that a de minimis exception for certain units at major sources may be acceptable because the broad language of section 114(a)(3) would not preclude the drafting of such an exception. See *Alabama Power Co. v. Costle*, 636 F.2d 323, 357 (D.C. Cir. 1979). However, EPA believes that a de minimis exception to the general requirement of enhanced monitoring at all major sources would be appropriate only if there were trivial gains in requiring enhanced monitoring at some subset of emissions units. *Id.* at 361.

Finally, EPA also solicits comment on other reasonable alternatives. For example, EPA solicits comment on whether it should adopt a method for determining the universe of units subject to part 64 that is based upon uncontrolled emissions rather than potential to emit, as such an approach arguably would better address the units with the greatest environmental risk. In other words, in a monitoring rule such as part 64, should EPA use a different definition of potential to emit than EPA has used for other purposes.

The reader should note that the same 30 percent threshold that is applied to a single emissions unit as described above would apply to a group of emissions units in certain circumstances. A group of emissions units at a major source may in some instances achieve compliance with applicable emission limitations or standards by aggregating, averaging, apportioning or trading emissions among the group of emissions units. For instance, a source may be operating with an approved bubble plan or similar scheme. In such circumstances, if, collectively, the potential emissions of the group exceed the tons per year threshold described above for a single emissions unit, then the proposed rule

would apply to all emissions units in the group.

One final alternative approach that EPA considered was to apply these rules only to major stationary sources in nonattainment areas. The EPA rejected this approach as inconsistent with the explicit language of section 114(a)(3) and because it would fail to address the benefits that can be achieved by improving compliance with maintenance-related requirements in attainment as well as nonattainment areas.

3. Use of Enhanced Monitoring to Determine Compliance

As discussed in further detail in Section III.B., the purpose of enhanced monitoring is to provide a means for determining and certifying whether compliance is continuous or intermittent. Many existing regulations do not include a regulatory method for determining compliance on that basis. In addition, some such regulations are written in such a manner as to prohibit the use of methods not included in the applicable regulation as a means for determining compliance. Therefore, some existing rules as written could not allow for effective implementation of the enhanced monitoring program mandated by section 114(a)(3).

The EPA considered three alternative means for addressing this concern. First, EPA considered requiring an owner or operator to establish a separately enforceable permit condition whenever an existing rule would not permit a determination of compliance with the underlying emission limitation or standard on the basis of enhanced monitoring. This alternative was rejected as inconsistent with the concept discussed in the part 70 operating permits rule that the permit generally would not be used as a means of establishing new requirements. (The part 70 rule does in limited circumstances allow for clarifying or adding compliance requirements as opposed to new emission limitations or standards, e.g., specifying an averaging period or specifying a periodic monitoring requirement where no current monitoring exists.)

The second alternative considered was to construct the enhanced monitoring rule in a manner designed to work within the structure of existing applicable requirements, and to provide incentive for owners or operators to voluntarily consent to the use of enhanced monitoring to determine compliance where the underlying applicable requirement would allow. Under this alternative, the specified compliance test method would have to

be included as part of an enhanced monitoring protocol if the underlying rule prohibited alternative means of determining compliance or the owner or operator did not consent to the alternative means. The proposed rule would have required an owner or operator to conduct the compliance method specified in the applicable regulation on a more frequent basis than currently required and whenever a set amount of deviations occurred. This alternative was rejected because in many instances it would fail to provide sufficient data to satisfy the statutory requirement that the enhanced monitoring be able to establish whether an emissions unit is in continuous compliance with an applicable requirement.

The third alternative, which is the approach selected for the proposed rule, would be to make amendments to the general provisions in Federal regulations, and to issue a SIP Call to correct any deficiencies in State regulations. These amendments and SIP changes would allow for a determination of compliance to be made on the basis of enhanced monitoring. These changes would best address the new statutory mandate in section 114(a)(3) and would allow for effective implementation of the enhanced monitoring program. The details of the proposed amendments and SIP Call are discussed in sections III.B., IV.J. and IV.K. below.

It should be noted that the proposed regulations, although intended to fulfill the mandate to determine whether compliance is continuous or intermittent, are not intended to change the stringency of any underlying emission limitations or standards. Federal regulations, including approved SIP regulations, generally are intended to be complied with at all times, consistent with any associated averaging time and any federally-approved excused periods such as startup, shutdown or malfunction. The proposed regulations would measure compliance consistent with averaging periods, and would recognize the federally-enforceable provisions that may allow for periods of excess emissions. The EPA solicits comments on the issue of whether, and if so how, the proposed regulations would increase the stringency of an emission limitation or standard.

C. Benefits of Enhanced Monitoring

A primary benefit of the proposed enhanced monitoring program would be a reduction in overall emissions through increased compliance with the requirements of the Act. Continuing

compliance with regulations after demonstrating initial compliance is necessary to assure that the emission reductions intended by regulations are achieved. One of the key elements to assure that reductions are achieved is a self-monitoring program that can quickly alert owners or operators so that they may take corrective or preventive action in order to prevent non-complying conditions and to minimize the amount of environmental harm caused.

In addition to the direct environmental benefit of decreased emissions, increased compliance rates would also achieve a corollary economic benefit. As a general matter, increased compliance rates with existing rules would lower the long-term overall cost of air pollution control by decreasing the need for additional command and control regulations to obtain the necessary emission reductions. For nonattainment areas, this benefit would be especially important as States that contain those areas prepare to demonstrate that reasonable further progress toward attainment is being achieved. Increasing the effectiveness of existing and future rules would allow States in many instances to reduce the level of additional control measures needed to achieve the necessary emissions reductions. The extent to which the States with an enhanced monitoring program would be able to rely upon increased rule effectiveness in meeting their attainment demonstration burdens under title I of the Act is discussed in greater detail in section V.A.

The information developed through the use of enhanced monitoring would have other benefits as well. First, enhanced monitoring data could be used to establish baseline emission information in those areas where economic incentive programs (such as emissions trading) may be implemented. Economic incentive programs will also require accurate data bases of monitoring information to allow for emissions trading or other marketable emissions concepts. The data developed from the enhanced monitoring protocols that would be required under the proposed regulations would assist in establishing these required data bases. This point is addressed in greater detail in section V.A. of the preamble. The increased data accuracy that would result from conducting enhanced monitoring would also improve the accuracy of title I emission inventories and emission statements, and may allow for increased accuracy in the assessment of permit fees under the title V operating permits program to the extent

a permitting authority bases its fee program on actual emissions.

Enhanced monitoring would also result in benefits to the regulated community. Although a self-monitoring program may not always be justified purely on the basis of economic benefit to a source, a monitoring program often provides an owner or operator with information beneficial to reducing other costs. Self-monitoring can in some situations reduce operating costs. For example, monitoring data can be used to increase combustion efficiency in an industrial boiler or to increase capture and reuse of solvents at a coating plant. A 1990 study by the General Accounting Office entitled "Air Pollution: Improvements Needed in Detecting and Preventing Violations" noted several instances in which companies have achieved such operating cost reductions. An enhanced monitoring program could also alert owners or operators that potential control device problems may exist. The owner or operator can use this information to target control devices for routine maintenance and repair, and reduce the potential of significant, costly breakdowns.

As discussed in section VI.C., a complete analysis of the costs and benefits of the proposed regulations is included in the RIA. As stated previously, the Agency solicits comments on its approach. The RIA document is available in the docket.

D. Public Participation

The proposed regulations were developed with the benefit of insight from many parties that would be affected by the proposed regulations. These groups include State and local air pollution control agencies, major industries, trade associations and environmental organizations.

To obtain the views of all these parties, as well as the general public, EPA published a notice in the *Federal Register* on August 8, 1991 to make available a Public Information Document on enhanced monitoring and to provide notice of a public meeting on the subject (56 FR 37700-01). The meeting was held in Washington, DC on August 22, 1991, and was attended by representatives from over fifty organizations. In response to the public meeting, EPA received many comments which are included in the docket.

Since the public meeting, EPA has held a series of informal informational and discussion sessions with interested organizations to receive their views on enhanced monitoring, as well as a recent informational meeting with approximately fifty attendees held on

August 12, 1993. (A summary of those contacts is included in the docket.) The EPA is interested in receiving comments from these and other interested parties during the public comment period for the proposed regulations.

II. Implementation Principles

In the May 10, 1991 preamble to the proposed 40 CFR part 70 regulations, EPA announced several principles that "should guide the design and implementation of title V regulations and related programs" (56 FR 21714). As noted in section I. above, the proposed regulations would be related to many of the provisions of title V. In addition, these proposed regulations would be implemented in large part through the operating permits program. Thus EPA has developed the proposed regulations in a manner consistent with these implementation principles of title V. The following discussion provides a brief outline of some of the title V implementation principles that most significantly relate to the proposed regulations.

A. Ensure Environmental Protection

Congress' basic goal in adopting section 114(a)(3) and related provisions is to ensure that sources continue to remain in compliance with applicable requirements of the Act after demonstrating initial compliance. The proposed enhanced monitoring program would provide EPA and States with the information necessary to oversee sources' compliance with the Act. The EPA anticipates that through improved oversight capabilities, overall compliance with the Act's requirements will improve and result in lowered emissions and improved air quality. This increased rule effectiveness will reduce the need to adopt additional air pollution control requirements in order to achieve national ambient air quality standards (see section V.A.). The EPA believes that the other implementation objectives stated below must complement this objective and not undercut the potential of the proposed regulations for strengthening air quality management efforts across the country.

B. Incorporate Broad-Based Perspective for Rule Development

The EPA continually seeks a better understanding of the key concerns of those most affected by proposed rulemakings in order to have a broad-based perspective during the regulation development process. By considering the views of various parties affected by a proposed regulation, EPA hopes to ease implementation of the proposed regulations and to minimize resource

expenditures. As noted above in section I.D., the proposed regulations were developed with the benefit of insight from important affected parties (including State and local governments, major industries, trade associations, and environmental organizations) that are actively involved in implementation of the Act. The EPA is interested in receiving additional input from these and other interested parties during the public comment period.

C. Maintain an Effective Partnership With State and Local Governments

The EPA recognizes that the bulk of the responsibility for implementing the proposed regulations would fall upon permitting authorities at the State and local level. A key principle in developing the proposed rules has been to build upon existing monitoring programs and to provide the States with flexibility wherever possible to reduce the burden of implementing the rules. In addition, EPA has developed a reference document to accompany these rules that would provide assistance in implementing the proposed rules.

D. Minimize Small Business Concerns

The EPA is sensitive to the potential impact of regulations on small businesses. To minimize such impacts, the proposed regulations would apply only to emissions units at sources of the most significant concern. In addition, the proposal could complement cost-effective permitting techniques, such as general permits, that can simplify the permit application and issuance process. For instance, in some circumstances, a group of facilities with similar emissions units subject to the proposed rule could develop a suggested enhanced monitoring protocol that, if considered acceptable, could then be incorporated as the enhanced monitoring requirement in a general permit applicable to each facility in the group. Finally, EPA has developed, but not mandated, a standardized summary reporting format that could be used for reporting under the proposed regulations. Use of the suggested standardized format would simplify and streamline reporting procedures. The standardized format is included as part of the draft Enhanced Monitoring Reference Document (see section III.A.3.) and will be available on the technology transfer network bulletin board system (TTNBBS) operated by EPA's Office of Air Quality Planning and Standards.

E. Promote Pollution Prevention

The EPA encourages permitting authorities to promote cost-effective

pollution prevention alternatives where possible in their permitting activities. Because these proposed regulations would not cover emissions units with potential emissions below a minimum applicable threshold of regulated non-hazardous air pollutants, the proposal would encourage sources to limit their potential emissions by undertaking enforceable pollution prevention measures rather than be required to conduct enhanced monitoring. In addition, the flexible monitoring approach in the proposed regulations, including the use of material balance procedures where appropriate, would be compatible with materials recovery and other pollution prevention approaches for controlling emissions.

F. Facilitate Use of Market-Based Incentives

The operating permits program and the proposed enhanced monitoring program are intended to be useful administrative tools for achieving cost-effective improvements in air quality through market-based principles. The proposed regulations would facilitate implementation of market-based programs by requiring information to be collected that could be used to determine emission baselines and subsequent reductions. This type of information will be an essential element of any economic incentive program that may be implemented.

G. Allow Flexibility in State Programs and Source Permits

The EPA recognizes the need for flexibility to consider different but effective monitoring techniques that would meet the requirements of the proposed enhanced monitoring program. Therefore the proposed regulations would allow States and owners or operators a flexible range of options in designing source-specific enhanced monitoring requirements.

H. Enable Effective and Efficient Information Transfer

The EPA intends that information contained in enhanced monitoring reports (to the extent not protected under laws of confidentiality) would be used for several air quality management purposes. The EPA intends to promote consistent data submittals to track progress, consolidate current reporting burdens, and inform affected parties of a source's compliance status relative to its applicable requirements.

I. Promote Simple and Streamlined Regulations

It is EPA's intent to simplify and streamline these regulations to the

extent possible. To this end, EPA solicits comments as to how this proposal might be further simplified or streamlined.

III. Summary of Key Concepts

In developing these proposed rules to implement the statutory mandates and intent under amended section 114(a) and title V of the Act, there are several key concepts that have guided the overall approach taken in the proposed regulations:

(1) Enhanced monitoring requirements should be flexible and allow for technological innovation and development;

(2) Enhanced monitoring data must be able to detect deviations with sufficient representativeness, accuracy, precision, reliability, frequency and timeliness in order for an owner or operator to determine and certify whether compliance with applicable emission limitations or standards is continuous or intermittent; and

(3) A link between the provisions under section 114(a) and the provisions under title V of the Act was intended by Congress.

Each of these concepts is addressed in further detail in the following subsections.

A. Development and Selection of Enhanced Monitoring Protocols

1. General Approach

The proposed regulations envision that enhanced monitoring systems and procedures applicable to an individual emissions unit would be set forth in an enhanced monitoring protocol to be developed and proposed by an owner or operator for approval by the permitting authority. The proposed regulations would require an owner or operator to implement an enhanced monitoring protocol that can be used to determine and certify continuous or intermittent compliance in accordance with section 114(a)(3) of the Act. This link between the enhanced monitoring protocol and determining whether an emissions unit is in continuous compliance would serve as the fundamental criterion on which all proposed enhanced monitoring protocols must be evaluated.

To assure sufficient data quality for purposes of determining continuous compliance and to assist in the selection and evaluation of proposed enhanced monitoring, the proposed regulations would require that an enhanced monitoring protocol provide for the collection of data with sufficient representativeness, accuracy, precision, reliability, frequency and timeliness to satisfy the basic requirement of

determining continuous compliance. The proposed regulations would include specifications and requirements related to monitoring equipment, installation, performance, performance verification test, and quality assurance procedures to assure that these data quality objectives are achieved.

The EPA has determined that there are many monitoring systems and procedures that can potentially satisfy these basic requirements for enhanced monitoring. Depending upon the nature of the emissions unit being monitored, an enhanced monitoring protocol could contain elements such as: continuous emission monitoring systems; continuous process or control device parameter monitoring systems or procedures; emission calculations based on accepted engineering estimation techniques; maintenance and analysis of records of fuel or raw materials usage; periodic verification of emissions, process parameters or control device parameters using portable or in situ measurement devices; recording results of a program or protocol to conduct specific operation and maintenance procedures, leak detection, fugitive dust control, or other work practices; any other form of measuring emissions, process parameters or control device parameters that can achieve the requirements of the proposed regulations; or any combination of the above.

Many sources subject to Federal regulatory or permit requirements, and some SIP sources, use one or more of these types of monitoring systems or procedures already. For many other SIP sources, one or more of these monitoring methodologies are used by similar new sources. The EPA has proposed to classify much of this existing monitoring as "established monitoring." "Established monitoring" would be defined as monitoring that has previously been demonstrated as a feasible means of assessing compliance at a specific type of emissions unit at a source, without taking into account the date of construction or modification of the emissions unit. For instance, a monitoring requirement in an NSPS subpart would be considered "established" for both NSPS and SIP emissions units that are of the type covered by the applicable subpart. Established monitoring includes the monitoring requirements specified in 40 CFR part 60 (the NSPS program), 40 CFR part 61 (the NESHAP program), appendix P of part 51 (SIP CEMS requirements), provisions in SIP's that implement monitoring systems and procedures identified in Control Technique Guidelines developed by

EPA pursuant to section 108 of the Act, monitoring requirements in preconstruction permits issued pursuant to title I of the Act, and, the Acid Rain Program monitoring requirements in 40 CFR part 75.

The proposed regulations would provide as one option that an owner or operator consider using the best established monitoring for the owner or operator's particular emissions unit for the purpose of enhanced monitoring. As noted in Section I.B.1., the determination of what is the "best" monitoring would involve an assessment of the circumstances at the particular emissions unit in question, and would not necessarily require the use of the best technologically and economically feasible monitoring.

If the established monitoring satisfies the requirements of part 64, then the owner or operator could propose that monitoring system or procedure for purposes of its proposed enhanced monitoring protocol. If necessary, the owner or operator would modify or add to the performance and operating requirements applicable to the established monitoring in order to satisfy enhanced monitoring performance and operating requirements specified under § 64.4(b), such as data availability requirements or quality-assurance procedures. Where parameter monitoring is involved, the owner or operator may also have to include procedures for establishing a "demonstrated compliance parameter level" in order to demonstrate compliance with an applicable emission limitation or standard. (See section IV.D. for discussions of these topics.)

If no established monitoring applies, or if the owner or operator considers the established monitoring inappropriate, then the owner or operator would be able to propose alternative monitoring for its enhanced monitoring protocol. In these circumstances, the owner or operator would have to identify all monitoring methodologies that are technologically feasible for the particular emissions unit. From that group of potential monitoring approaches, the owner would then have to select a methodology that can best satisfy enhanced monitoring requirements for the particular emissions unit. Again, the determination of what is "best" would involve an assessment of site-specific circumstances.

After the evaluation process, the owner or operator would describe and justify in a permit application the proposed enhanced monitoring protocol selected on the basis of the owner or operator's evaluation. The application

would have to list the monitoring methodologies identified, include a summary explanation of how the proposed monitoring approach would best satisfy the enhanced monitoring requirements at the particular emissions unit, and provide detailed supporting documentation and information.

The EPA has proposed this process of identifying, evaluating and proposing an enhanced monitoring protocol because it emphasizes the use of monitoring systems and procedures that EPA has previously established to be acceptable for specific emissions units, based on the specific source category, the type of industry, and the size and nature of the emissions unit. Where an owner or operator proposes to use a different form of monitoring, then the process of identifying technologically feasible monitoring methodologies before evaluating a methodology for use in an enhanced monitoring protocol would assure that there is sufficient information for both the source and the permitting authority to select and approve an enhanced monitoring protocol.

It should be noted that existing monitoring systems and procedures, including many established monitoring methodologies, may need to be upgraded, either through improved instrumentation or through improved practices such as quality assurance, to meet the proposed enhanced monitoring protocol requirements. This upgrading would in large part be necessary to satisfy the enhanced quality assurance and data availability requirements in the proposed regulations.

The EPA has proposed this flexible approach for selecting an enhanced monitoring protocol for several reasons. Given the short time-frame provided by Congress for promulgating regulations pursuant to section 114(a)(3), it would be infeasible for EPA to develop regulations dictating the enhanced monitoring approach that each possible source category must adopt. More importantly, the proposed approach would promote the development of technological advances and innovative ideas for cost-effective enhanced monitoring by the private sector. EPA is committed to allowing the private market to develop new and innovative means of achieving the air quality goals contained in the Act. One of the primary forces behind the 1990 Amendments was the drive to increase the reliance upon market-based efficiencies in developing air pollution control requirements, such as Congress included in the allowance trading provisions for the Acid Rain Program under title IV of the Act. By allowing

source owners or operators to have a greater input on the type of monitoring that can be used, these regulations can allow for the development of cost-effective monitoring alternatives by the regulated community.

This flexible approach will also allow for differences in sources' potential variability in emissions to be taken into account. The emphasis in the proposed rule is on providing monitoring data that can determine accurately whether a source remains in compliance with applicable emission limitations or standards. If a particular emissions unit has a large margin of compliance and low potential variability in emissions, then less sophisticated monitoring would be more appropriate than if only a small margin of compliance exists or the potential variability of emissions is high.

The EPA anticipates that there generally would be a need for some type of continuous instrumental monitoring for those emissions units that use an add-on control device to achieve compliance with an applicable emission limitation or standard. Proper operation of a control device is essential for compliance with an applicable emission limitation or standard, and a failure of the control device can lead to significant emission exceedances even if a large margin of compliance is demonstrated while the control device is functioning properly.

Because many types of control devices are subject to potential reduced efficiency, enhanced monitoring generally would have to measure on a continuous basis the effectiveness of a control device in order to determine continuous compliance with the applicable emission limitation or standard. For some types of control devices, an owner or operator may be able to justify less frequent measurements (e.g., less frequent measurements may be justified for carbon bed adsorbers used to control VOC emissions because of the operational characteristics of that particular control device). A source generally would have to either monitor the emissions exiting the control device (and entering if a reduction efficiency requirement applies), or monitor one or more operating parameters of the control device and maintain appropriate records for the emissions unit.

As noted earlier in section I.B., the selection and use of monitoring, regardless of the degree of instrumentation or frequency of data collection, is not intended to affect the stringency of underlying emission limitations or standards.

2. Distinguishing Continuous Compliance From Continuous Monitoring

The reader should note that EPA has included within the monitoring approaches listed above both continuous and periodic monitoring systems and procedures. It is important to distinguish between the requirement under section 114(a)(3) to determine "whether compliance is continuous or intermittent" and the use of continuous or periodic monitoring approaches. Continuous compliance generally means to remain in compliance during all times that compliance is required, consistent with the applicable averaging period. Continuous monitoring generally means to measure emissions or parameters on an extremely frequent basis and then to average those results over some period of time.

For instance, a gaseous CEMS is required under 40 CFR part 60 to complete one cycle of measurement, analysis and data recording every fifteen minutes, and then those individual measurements are averaged over a period of time, often one hour, to provide a single average emissions value. For many emissions units, frequent measurements and averaging the results is unnecessary to determine whether compliance is continuous. In these circumstances, periodic measurements can be used to determine continuous compliance.

The determination of measurement frequency is a function of both the averaging period for the emission limitation or standard and the potential variability of emissions. As a general matter, a determination of continuous compliance will require some data for all applicable averaging periods for a standard. Where the potential variability in emissions is high, then several measurements within an averaging period may be required. Where the potential variability is low, a single periodic measurement that covers several averaging periods may be appropriate.

For instance, fuel sampling and analysis may be an appropriate form of enhanced monitoring at some fossil fuel-fired steam generating emissions units. By conducting proper fuel sampling and analysis, sulfur dioxide (SO₂) emission rates can be determined based on the sulfur content of the fuel used and the amount of fuel consumed. If an hourly averaging time is specified, usage rates may have to be determined on a more frequent basis than if the averaging time is daily. As another example, since the sulfur content of coal is more variable than that of distillate

oil, coal generally would require more frequent sampling and analysis. See section IV.D. for a further discussion of measurement frequency and related performance specifications.

In public comments received during development of the proposal, some commenters suggested that the phrase "continuous or intermittent" as used in section 114(a)(3) referred to whether the methodology used for determining compliance was continuous or intermittent, not whether compliance was continuous or intermittent. The EPA believes that this interpretation of the statute is contrary to the explicit language of section 114(a)(3). Section 114(a)(3) states that a compliance certification must include, among other items, two discreet elements: the methods used to "determine the compliance status of the source" and "whether compliance is continuous or intermittent." If Congress had intended the latter phrase to apply to the methodology for determining compliance, Congress would have required that the certification identify whether compliance was determined on a continuous or intermittent basis.

The confusion on this issue may stem in part from language in section 114(a)(1) that gives the Administrator the authority to require any source to conduct monitoring, testing, reporting and recordkeeping "on a one-time, periodic or continuous basis." This language was added to section 114(a)(1) to clarify EPA's long-standing ability to require any owner or operator to collect and submit data pursuant to section 114 of the Act. The new language in section 114(a)(1) reaffirms EPA's authority to obtain this information on a one-time, periodic, or continuous basis. The EPA believes that the citations to discussions in a Senate report (see S. Rep. 228, 101st Cong., 1st Sess., at 368 (1989)) made by these commenters apply to this general provision and are not related to the term "enhanced monitoring" or the related provisions of section 114(a)(3).

3. Enhanced Monitoring Reference Document

Included in the docket for the proposed regulations is a separate preliminary draft "Enhanced Monitoring Reference Document" (referred to hereafter as the "EM Reference Document"). The EPA believes that this document, when finalized, will serve to reduce the burden on permitting authorities and sources by laying out the protocol evaluation process and including many examples of acceptable protocols.

The EM Reference Document provides an overview of the enhanced monitoring

program and the types of issues that must be addressed by an owner or operator that seeks to comply with the proposed part 64 requirements. The document also reviews the selection process and provides a summary of the "established monitoring" from existing monitoring regulations that could be evaluated by an owner or operator where applicable. (See the discussion of "established monitoring" in sections III.A.1. and IV.D.5.)

The EM Reference Document also provides examples of other monitoring systems and procedures that potentially could be used as enhanced monitoring. The document also describes performance specifications, calibration and quality assurance procedures, and data availability requirements for enhanced monitoring protocols. Finally, the document provides guidance on how enhanced monitoring can be addressed in preparing permit applications and in developing permit terms and conditions.

The EM Reference Document is not included as part of the proposed regulation and is not intended to be viewed as a regulatory requirement. Rather, the EM Reference Document is intended to simplify the permitting process to the maximum extent possible by providing a compendium of established monitoring and other potential approaches to enhanced monitoring. Thus, for many situations, an owner or operator would be able to rely on the EM Reference Document as support in justifying that a proposed enhanced monitoring protocol can satisfy the regulatory requirements.

In some instances, however, the owner or operator, or the permitting authority, may decide that a system or procedure identified in the EM Reference Document is inappropriate for an emissions unit at a particular source because of unit-specific concerns, such as measurement interferences or unique design considerations. In other instances, an owner or operator may propose another alternative that will provide sufficient data to satisfy enhanced monitoring requirements, but that is less costly for the source. Finally, due to the scope of the enhanced monitoring program, the EM Reference Document cannot be all-encompassing. For emissions units not included, the owner or operator would have to demonstrate to the permitting authority that its proposed enhanced monitoring protocol meets the requirements of the proposed regulations.

The EPA intends that the EM Reference Document will be a dynamic document and that additional non-instrumental and instrumental

monitoring approaches will be added over time to increase the effectiveness of the document as a reference tool for permitting authorities and the regulated community. The EPA anticipates adding additional examples to the document prior to promulgation of final enhanced monitoring rules. In addition, EPA encourages all affected parties to submit comments on the EM Reference Document and to propose enhanced monitoring protocols for consideration, not only before promulgation of the part 64 regulations, but after that time as well. In this manner, the document can be updated on a regular basis.

B. Purpose of Enhanced Monitoring

The enhanced monitoring and compliance certification program constitutes a new initiative under sections 114(a)(3) and 113(e) of the Act designed to increase overall compliance with applicable emission limitations or standards. Historically, the determination of the compliance status of an emissions unit has been made in many cases on the basis of a single compliance demonstration, sometimes followed by additional (usually infrequent) compliance demonstrations to confirm continuing compliance. For new sources, an initial performance test using reference test method procedures is conducted in order to document an emissions unit's capability to comply with applicable emission limitations or standards. After demonstrating that an emissions unit is capable of compliance through this initial test, EPA has generally relied upon surveillance techniques (e.g., inspections, citizen complaints, etc.) to target sources for further compliance demonstrations.

The requirements of section 114(a)(3) shift to the owner or operator the burden to document and report whether an emissions unit remains in compliance with applicable emission limitations or standards over time. As required by section 114(a)(3), a responsible official of the source must certify "whether compliance is continuous or intermittent" during the reporting period. In order to meet the clean air goals of the Act, owners or operators, not EPA and States, must collect sufficient data to determine and report on the continuous compliance status of their emissions units.

The EPA anticipates that for those source's subject to the enhanced monitoring requirements, the proposed enhanced monitoring program coupled with the compliance certification provisions of part 70 would improve overall compliance with emission limitations or standards under the Act and bring noncomplying owners or

operators into compliance. The increased compliance that can be achieved through effective implementation of these proposed regulations and the part 70 regulations would reduce emissions significantly below current levels. The data analyzed by EPA in developing the RIA for these proposed regulations (see section VI.C.) indicate that where monitoring programs have been initiated for determining continuous compliance, emissions have been reduced significantly. The reduced emissions that would occur from effective implementation is thus a primary environmental benefit of these proposed regulations.

In addition to environmental benefits, such emissions reductions will probably result in substantial reductions in the overall cost of air pollution control. The RIA performed to support the proposal documents that enhanced monitoring can achieve emissions reduction more cost-effectively than additional control technology requirements. By increasing the compliance rate with existing requirements through the performance of enhanced monitoring, the need for additional, more costly control regulations can be avoided. For instance, with respect to VOC emission inventories required in nonattainment areas, EPA currently allows States to take credit for only 80 percent of the emission reductions that could be achieved by full compliance with a regulation. Increased compliance would allow States to take credit for additional reductions. In particular, where a State must document reasonable further progress in nonattainment areas pursuant to title I of the Act, EPA is considering the option of allowing a State that has implemented these proposed rules to take credit for a significant portion of its required progress demonstration; this point is discussed in further detail in section V.A.

Finally, as noted earlier in section I.C., a self-monitoring program can have economic benefits for many sources as well. Self-monitoring can increase operating efficiencies and reduce process costs. Monitoring can also document the need to perform routine maintenance of control equipment and avoid the need to perform costly repairs to, or even replacement of, a large capital investment. Instrumental systems can frequently be used to diagnose control device problems. In addition, self-monitoring could provide data that would allow an owner or operator to rectify control device problems before a period of non-compliance occurs and eliminate

potential exposure to enforcement actions.

Section 114(a)(3) specifically requires that a certification be based upon a determination of whether compliance was continuous or intermittent. Therefore, the enhanced monitoring protocol must collect data that can be used to document compliance and facilitate enforcement of documented violations. Congress noted in a Senate Committee Report that "similar to the reporting requirements of the Clean Water Act, 33 U.S.C. 1342, compliance certifications and emission data submitted pursuant to this [section 114(a)(3)] authority will facilitate enforcement, due in part to the fact that such data and certifications can be used as evidence." (S. Rep. 228, 101st Cong., 1st Sess., at 368 (1989)). Similarly, a House Committee Report stated that this section "confirms that EPA has authority under section 114(a) to require enhanced monitoring and to require such monitoring in compliance certifications." (H.R. Rep. 490, 101st Cong. 2d Sess., pt. 1, at 394 (1990).) Thus, Congress linked enhanced monitoring and compliance certifications, with the idea that enhanced monitoring data would serve as the basis for certifying compliance and could be used to determine the existence of an enforceable violation.

To be effective, this program must also be practical and cost-effective for both the regulated community and the regulatory agencies at the local, State and Federal level. The EPA realizes that, because many existing reference test methods require expensive in-stack sampling techniques, it would often be impractical to require a source to conduct such tests frequently enough to have representative data with which to determine and certify its compliance status over a period of time. However, some existing provisions in 40 CFR parts 51, 52, 60 and 61, and in some SIP's, are written in a manner that potentially limits determinations of compliance to such reference method test procedures. To implement the new statutory mandate effectively, the existing provisions must be modified to allow explicitly for the enhanced monitoring and compliance certification requirements to be implemented through 40 CFR parts 64 and 70.

Thus, this proposal would include several changes to 40 CFR parts 52, 60 and 61 to address this issue. (Additional amendments to parts 51 and 52 to address preconstruction permit implementation issues are discussed in section V.C.) These amendments would allow for the use of enhanced monitoring protocols approved through

the part 64 process, if applicable (and on the basis of other monitoring approved through the part 70 process), for the purpose of certifying compliance, in addition to the means of determining and certifying compliance provided for in the referenced regulations. The EPA also intends to require through State implementation plan (SIP) call procedures that all SIP's contain adequate authority to allow for the enhanced monitoring (and other part 70 monitoring) to be used for compliance certification purposes.

In addition to making enhanced monitoring and periodic monitoring data usable for compliance certifications, the amendments and the SIP Call also will make changes which make EPA's enforcement scheme consistent with the changes made by Congress to section 113 of the Act. Congress made these changes, such as providing EPA with the authority to issue administrative penalty orders under the Act, to strengthen EPA's ability to bring enforcement actions for violations of the Act.

The change to the Act most relevant to the proposed amendments is section 113(e). Section 113(e) of the Act is entitled "Penalty Assessment Criteria," which in addition to establishing the factors to be assessed in the penalty phase of trial, also creates presumptions for proving continuing violations. (See section 113(e)(2) of the Act, 42 U.S.C. 7413(e)(2).) In addition, most relevant for the purposes of this proposed rule, section 113(e)(1) clarifies that violations can be proved based on any credible evidence admissible under the Federal Rules of Evidence. Section 113(e)(1) now provides that "in determining the amount of any penalty to be assessed * * * the Administrator or the court, as appropriate, shall take into consideration * * * the duration of the violation as established by any credible evidence (including evidence other than the applicable test method)* * * ." (See section 113(e)(1) of the Act, 42 U.S.C. 7413(e)(1).) Under the Act, penalties are assessed for each day of violation. (See sections 113(b), 113(d) and 113(e)(2), 42 U.S.C. 7413(b), 7413(d) and 7413(e)(2).) Therefore, penalties cannot be considered or assessed unless, and until, liability for the underlying days of violation has been established. In order for a court to consider penalty assessment for the "duration of the violation," liability for the violation must first be established by appropriate means, including "as established by any credible evidence."

The legislative history explains that Congress intended to grant the Agency

greater flexibility in its use of evidence in proving a violation. Congress stated:

* * * the amendment clarifies that courts may consider any evidence of violation or compliance admissible under the Federal Rules of Evidence, and that they are not limited to consideration of evidence that is based solely on the applicable test method in the State implementation [plan] or regulation. For example, Courts may consider evidence from continuous emission monitoring systems, expert testimony, and bypassing and control equipment malfunctions, even if these are not the applicable test methods. Thus, this amendment overrules the ruling in *United States v. Kaiser Steel Corp.*, No. 82-2623-IH (C.D. Cal. January 17, 1984) to the extent that the court in that case excluded the consideration of such evidence. (S. Rep. No. 228, 101st Cong., 1st Sess. 1, 366 (1989), reprinted in 1990 U.S. Code Cong. & Admin. News 3385, 3749.)

In addition, Congress also stated that the enforcement title of the Clean Air Act Amendments of 1990 makes "clear that the Agency may rely upon any credible evidence of violations in pursuing alleged violations." (S. Rep. No. 228, 101st Cong., 1st Sess. 1, 366 (1989), reprinted in 1990 U.S. Code Cong. & Admin. News 3385, 3741.)

The statutory language and the legislative history demonstrate that Congress intended to amend the penalty assessment provision in part to overrule *Kaiser Steel*. In *Kaiser Steel*, EPA argued to the court that it should be able to prove violations based on evidence other than the applicable "reference" test method. Then, as now, section 113(a) allowed the initiation of an enforcement action based on any information available to the Administrator. (See section 113(a), 42 U.S.C. 7413(a).) The court disagreed with EPA's argument and ruled that expert testimony of the opacity of Kaiser's blast furnace exhaust gases was inadmissible because the testimony did not strictly comply with the applicable test method. Thus, EPA was limited to proving violations on days for which reference test data was available. In overruling *Kaiser Steel*, Congress intended that section 113(e) would facilitate enforcement by allowing for the use of any credible evidence to prove a violation.

Thus, section 113(e), read in conjunction with sections 113(a), (b) and (d), authorizes the Agency to bring enforcement actions based on any credible evidence. However, some provisions now in applicable state implementation plans and in existing Federal regulations (e.g., 40 CFR 52.12(c), 60.11, and 61.12) appear to conflict with these statutory provisions.

Accordingly, EPA is planning to call for States to amend their applicable implementation plans to ensure that owners or operators may use enhanced monitoring (or other monitoring approved for the source pursuant to part 70) for compliance certification purposes, and that data from this monitoring, along with any other credible evidence, may be used as evidence of a violation of an applicable plan. The proposed amendments to parts 51, 52, 60, and 61 would have the same goal.

The EPA considered the option of requiring States to revise the applicable plan by amending each individual federally-enforceable regulation applicable to emissions units. This approach, however, would have taken an enormous investment of time and resources by the States and by EPA; moreover, it would have been difficult to implement in a timely manner, thereby frustrating implementation of a significant new initiative under the Act. The EPA, therefore, believes that the proposed revisions to the general provisions of the applicable regulations and plans would achieve the statutory mandates in the most efficient manner.

The EPA solicits comments on the proposed approaches discussed in this section.

C. Relationship to Title V Permit Program

In accordance with title V of the Act, EPA promulgated regulations requiring States to implement and enforce operating permits programs at 40 CFR part 70 on July 21, 1992 (57 FR 32314). The operating permits program signifies an important development in the administration of the Act and makes the air program consistent with other environmental programs that use operating permit systems, such as the National Pollutant Discharge Elimination System (NPDES) program under the Clean Water Act (40 CFR parts 122-124) and the hazardous waste permit program under the Resource Conservation and Recovery Act (40 CFR parts 270 and 271).

The proposed regulations have been developed to work in concert with the operating permits program. (The reader should note that the proposed regulations also would be implemented through preconstruction permits programs pursuant to parts C and D of title I of the Act. The relationship between the proposal and these permit programs is discussed in section V.C. of this preamble.) The following discussion highlights the most significant areas of interrelationship between the proposed enhanced

monitoring program and the operating permits program.

1. Implementation

To allow for a flexible approach for enhanced monitoring protocol selection, the proposed regulations would require that the enhanced monitoring protocol for each affected emissions unit be approved through the operating permit process. An owner or operator would be required to propose an enhanced monitoring protocol in its operating permit application which could then be reviewed and acted upon by the permitting authority. The operating permit issued to the owner or operator would contain the requirements associated with the enhanced monitoring protocol.

The enhanced monitoring requirements under part 64 would be independent requirements separate from the part 70 regulations. However, because of the close link between these requirements and the operating permits program, proposed part 64 would also contain permit application and content requirements. The EPA believes that this implementation guidance would facilitate effective implementation of part 64 under the operating permits program.

It should also be noted that, although part 64 requirements are independent of part 70, owners or operators would satisfy the general part 70 monitoring requirements for those emissions units and applicable requirements for which sources conduct part 64 enhanced monitoring. For example, an emissions unit currently may have no monitoring under existing requirements that can be used for certifying whether compliance is continuous or intermittent. The general provisions of § 70.6(a)(3) would require the source to fill that gap as part of the part 70 process. If, however, that same emissions unit would be subject to the part 64 requirements, part 64 would fill the gap without additional measures required under part 70. (See the earlier discussion of the role of gap-filling in the title V process in section I.B.)

2. Reporting

As mentioned in Section I., title V requires monitoring and compliance certification. Under 40 CFR 70.6, all permits must contain terms and conditions specifying monitoring and compliance certification requirements. Moreover, 40 CFR 70.6(c)(5) includes all of the statutory criteria required under section 114(a)(3) for the content of a compliance certification, including a requirement that the certification state whether compliance was continuous or intermittent. That section also states

that the certification shall include such other information as may be required pursuant to regulations developed under section 114(a)(3). Because the 40 CFR part 70 provisions include the minimum statutory criteria concerning content of a certification, the proposed regulations would not require a separate annual compliance certification under part 64, but would simply require that the annual compliance certification submitted under 40 CFR part 70 be based on enhanced monitoring data for all emissions units and applicable requirements subject to part 64. Thus the reader should note that, although the proposed regulations focus on enhanced monitoring requirements, the proposed regulations would act together with the previously promulgated part 70 regulations to create an integrated enhanced monitoring and compliance certification program.

3. Flexible and Market Strategies

As noted in section II., flexibility and the use of market-based incentives are both guiding principles behind the implementation of the title V operating permits program and the proposed regulations. Two specific flexible strategies highlighted in the promulgation of part 70 have been incorporated into these proposed regulations. First, 40 CFR 70.4(b)(12)(iii), 70.6(a)(8) and 70.6(a)(10) allow a State program to allow permitted sources to trade emissions within a single source where the applicable implementation plan allows for such trading. These provisions are intended to promote greater reliance on market-based programs and least cost compliance planning. The proposal would apply to such emissions units at a source allowed to trade emissions under this part 70 provision. This approach, coupled with the flexible monitoring selection process incorporated in the proposed regulations, would give the sources the necessary flexibility while at the same time requiring the accurate emissions tracking information needed for a successful and enforceable trading program.

The second strategy in part 70 is the concept of alternative limits adopted at permit issuance. 40 CFR 70.6(a)(1)(iii) allows a State to incorporate at permit issuance an alternative limit that is equivalent to the underlying requirement, if the applicable implementation plan allows for such action. That section requires that the alternative limit be quantifiable, accountable, enforceable and based on replicable procedures.

This part 70 provision could assist in the facilitation of the flexible enhanced

monitoring protocol selection approach taken in the proposed regulation, especially where parameter monitoring may be used. Once the monitored parameter (or parameters) satisfies the requirements above, the appropriate parameter limitation(s) could be established as the alternative limit to the underlying emission limitation or standard. The compliance status with the alternative limit would then be determined based upon the enhanced monitoring protocol data.

4. Permit Fees

The cost of implementing part 64 will be one of the costs that can be recovered through permit fees required under title V of the Act. Section 502(b)(3)(A) provides that a State program must require sources subject to part 70 to pay an annual fee to cover all "reasonable (direct and indirect) costs" required to develop and administer the permit program. Under 40 CFR 70.9(b), the costs of "emissions monitoring," "supporting and tracking of permit applications, compliance certifications, and data entry," and all costs associated with "implementing and enforcing the terms of any part 70 permit" are all covered by the fee requirements.

Enhanced monitoring will prove to be an aid to owners or operators that are assessed a fee based on the preceding year's actual emissions. Through the implementation of the proposed enhanced monitoring requirements, an owner or operator would have a more accurate data base with which to document its most significant emissions. This could lead to reduced overall fees for the owner or operator because emissions documented through enhanced monitoring would replace other more general emission estimation techniques which, by not being able to take into account actual operating conditions, can inflate the actual emissions that occur at a source.

IV. Discussion of the Key Aspects of the Proposed Regulation

A. 64.1—Applicability

1. Applicability To Hazardous Air Pollutant Sources

Section 64.1(a) would state that the enhanced monitoring requirements under part 64 apply to all emission limitations or standards established under 40 CFR part 61 at any source that is required to obtain an operating permit under part 70. Part 61 (the existing NESHAP program) governs the control of several hazardous air pollutants from several different categories of stationary sources.

These existing NESHAP's generally contain monitoring requirements and part 64 would state that part 61 monitoring requirements are considered "established monitoring" for the applicable emissions units. The EPA believes that owners or operators generally would be able to use such monitoring to propose an enhanced monitoring protocol without making substantial additional efforts to comply with proposed part 64. However, the part 61 emission standards are of significant environmental importance and thus EPA considers it appropriate to ensure that an owner or operator be required to monitor for continuous compliance with all such standards.

The EPA considers future standards that are being developed for hazardous air pollutants to be of significant importance and intends to require enhanced monitoring of sources subject to such standards. However, EPA intends to address the enhanced monitoring requirements pursuant to section 114(a)(3) in the requirements developed for such pollutants and not as part of the general provisions in proposed part 64. The following discussion briefly summarizes this proposed approach.

As amended in 1990, section 112 of the Act requires EPA to promulgate emission standards for categories or subcategories of additional hazardous air pollutant sources according to a prescribed regulatory schedule. The emission standards are to be based on maximum achievable control technology (MACT). These standards will be promulgated at 40 CFR part 63. If EPA fails to promulgate a standard in a timely fashion, section 112(j) of the Act requires that a permit include a standard that is equivalent to the standard that would be required under a promulgated rulemaking. Similarly, section 112(g) requires a case-by-case emission standard for any new or modified major hazardous air pollutant source if no emission standard has been promulgated by EPA.

EPA intends that the general provisions of part 63, MACT standards promulgated by rulemaking in individual subparts of part 63, or permit-specific conditions pursuant to sections 112 (g) and (j), will include, pursuant to the authority in section 114(a)(3) of the Act, appropriate enhanced monitoring provisions. Therefore, the general enhanced monitoring requirements in the proposed part 64 regulations would apply only to the part 61 NESHAP requirements that have been established without implementing section 114(a)(3)

of the Act and not to these new section 112 requirements.

2. Other Regulated Air Pollutant Sources

For sources of non-hazardous regulated air pollutants, the proposed regulations would apply only to emissions units at "major stationary sources." As defined under section 302 of the Act, that term generally applies to any stationary source with the potential to emit 100 tons or more per year of any air pollutant. However, other sections of the Act modify this general definition by lowering the applicable threshold. The definition of "major source" included in the 40 CFR part 70

operating permit regulations incorporates both the general section 302 definition (100 tons per year of any air pollutant) and the more stringent thresholds created under other sections of the Act. It is important to note that this part 70 definition does not include the "major source" threshold established for prevention of significant deterioration (PSD) permitting under part C of title I of the Act. That threshold in some instances is set at 250 tons or more per year. The maximum threshold under part 70 is 100 tons per year.

Since the part 70 definition of "major source" also includes "major" sources of hazardous air pollutants for which

enhanced monitoring will be addressed in the rulemakings proposed under the amended section 112 of the Act, the part 70 definition would be too broad for these proposed rules. Therefore, for purposes of the proposal, the term "major source" would be defined more narrowly than under part 70 to include only the following sources:

(1) Sources of air pollutants, as defined in section 302 of the Act, with the potential to emit 100 tpy or more of any air pollutant; and

(2) Sources subject to the nonattainment area provisions of title I, part D of the Act, with the potential to emit pollutants in the following or greater amounts:

Pollutant	Nonattainment status	Major source threshold (in TPY)
(i) Ozone (VOC and NO _x) ¹	Serious	50.
	Areas in transport regions not classified as severe or extreme	50 (VOC only).
	Severe	25.
	Extreme	10.
(ii) Carbon Monoxide	Serious (where stationary sources contribute significantly)	50.
(iii) Particulate Matter (PM-10)	Serious	70.

¹ For this purpose, title I treats volatile organic compounds (VOC) and oxides of nitrogen (NO_x) sources differently. Certain areas and sources may qualify for an exemption under section 182(f) of the Act. (Generally, certain sources may be exempt if, during implementation plan approval, the Administrator determines net air quality benefits are greater in the absence of NO_x reductions from such sources. In addition, areas may be exempt (in whole or in part) if the Administrator determines that, for certain areas, additional reductions of NO_x would not contribute to ozone attainment or, for certain other areas, not produce net ozone air quality benefits.) In those areas and for those sources covered by a section 182(f) exemption, sources with the potential to emit less than 100 tpy of NO_x would not be considered major sources under part D of title I. In areas not qualifying for this exemption, NO_x sources are subject to the lower thresholds created by section 182(f). In ozone transport regions, a lower threshold of 50 tpy for VOC sources is created by section 184(b). Because section 182(f) does not refer to section 184(b), the lower threshold in ozone transport regions applies to VOC sources, but not to NO_x sources. Whatever its location, any 100 tpy source would be considered a major source under section 302 of the Act.

At these major sources, the proposed regulations would apply only to the emission limitations or standards applicable to those regulated air pollutants for which a source is classified as a major source. This approach would focus part 64 requirements on the more significant pollutants at each source. The RIA conducted in support of the proposal documents greater net benefits using this approach than using other alternatives because of the increased amount of potential emissions reductions of the more significant pollutants. Furthermore, 40 CFR part 70 will still require monitoring to assure compliance with the emission limitations or standards for the other pollutants.

With respect to those emission limitations or standards applicable to the "major" regulated air pollutants, the proposed regulations generally would apply only to those emissions units at a major source with potential emissions of the "major" regulated air pollutant equal to or greater than 30 percent of the tons per year necessary to qualify the

source as a major source for that pollutant.

As an example of how the thirty percent threshold would apply, a source of VOC in an attainment area, which is defined under part 70 as being major at 100 tons per year, would conduct enhanced monitoring at all emissions units within its facility that had the potential to emit VOC in amounts equal to or greater than 30 tons per year. A source of VOC in an area that is classified as extreme nonattainment would be a major source if it had the potential to emit 10 tons per year of VOC; at such a major source, emissions units which had the potential to emit 3 tons per year of VOC would be subject to enhanced monitoring.

It is important to note that the enhanced monitoring rule applies to major sources as defined at part 70, and not as defined under all applicable sections of the Act. Although part 70 refers to sections 112, 302 and part D of the Act for definitions of major source, the part 70 regulations do not adopt the major source definition of the Prevention of Significant Deterioration

(PSD) provisions at part C of title I of the Act. (Under the PSD requirements, a source can, in some instances, be defined as a major source if it has the potential to emit as much as 250 tons per year of regulated pollutant.) This means that a major source, including a PSD source, is one that has the potential to emit 100 tons or more per year of a regulated pollutant, or some lesser amount as set forth in part 70. Thus, for purposes of applicability under this rule, the 30 percent threshold amount would never be greater than 30 tons per year.

The EPA realizes that this proposed approach would not apply part 64 requirements to all emissions units at a major source given that those below the percent threshold would be excluded. In addition, because a major source may be comprised only of such small emissions units, the proposed rules would not necessarily apply to all major sources.

However, as noted above in section I.B., the RIA conducted in support of the proposed regulations documents that requiring part 64 enhanced monitoring at all emissions units at a major source

would result in less net benefits than the proposed option. In addition, that earlier discussion noted that part 70 monitoring data must assure compliance with all applicable requirements. Section 70.6(c)(5) specifically links the monitoring required under § 70.6(a)(3) to the compliance certification submitted by the owner or operator. Based on the results of the RIA evaluation, EPA is proposing to consider those compliance monitoring requirements under part 70 as sufficient to satisfy § 114(a)(3) of the Act for small emissions units at a major source without requiring such monitoring to be further enhanced. As noted in section I.B., EPA solicits comments on this proposed approach.

a. *Applicability to Multiple Emissions Units.* In certain instances, the potential emissions from several emissions units would be combined for determining whether, as a group, such emissions units are subject to enhanced monitoring. Section 64.1(b)(2) would provide that, in order to determine if an emissions unit was subject to enhanced monitoring, all emissions from any group of emissions units that participate in an emissions aggregating, averaging, apportioning, or trading program at a source would be combined to determine whether, collectively, the potential emissions from such group of units exceed the thirty percent of a major source threshold established for a typical single emissions unit. The first type of emissions unit group to which this provision would apply would be those emissions units involved in some form of "bubbling" or trading plan within a single facility. This would include, for instance, a source with emissions units subject to either an approved "bubble" consistent with EPA's December 4, 1986 Emission Trading Policy Statement (51 FR 43829) or, in the future, EPA's policy and rule on economic incentive programs. (For EPA's guidance to States on establishing economic incentive programs, see 58 FR 11110, February 23, 1993. This guidance also served as a proposed rulemaking for final economic incentive program rules.) Emissions units also may participate in source-wide emissions trading plans as contemplated by 40 CFR part 70 (see discussion at 57 FR 32267-32268, July 21, 1992).

In these and similar circumstances, the potential emissions from all such emissions units are treated collectively for the purposes of the underlying regulatory program and thus would be similarly treated under the proposed part 64 regulations. Although the emissions from such emissions units would be treated collectively to

determine if the proposed regulations are applicable to such emissions units, EPA anticipates that such emissions units often may require separate monitoring in order to provide sufficient data to determine compliance.

The second type of emissions unit group for which emissions would be combined under this provision would be fugitive emissions points for which compliance is evaluated on a process-wide or facility-wide basis. If the total fugitive emissions from such points at the source exceeds an applicable major source threshold, then those emissions would be subject to the part 64 requirements. As discussed below in section IV.D.3., in these circumstances multiple point monitoring of these fugitive emissions would be expected. For instance, a facility-wide visible emission observation protocol might be used for the purpose of monitoring fugitive particulate emissions at a non-metallic mineral processing facility. Under that protocol, not all emissions points creating fugitive particulate emissions would necessarily have to be monitored with the same frequency that a single emissions unit would be monitored.

Finally, the reader should note that this combined treatment of emissions units would not apply to emissions units that trade allowances, or in any other manner act in concert, for the sole purpose of compliance with annual emission limitations or standards under the Acid Rain Program promulgated pursuant to title IV of the Act. As discussed below in section IV.A.3., part 64 would not apply to those emission limitations since title IV requires the establishment of distinct continuous compliance monitoring requirements for the Acid Rain Program. Therefore, this combined treatment of emissions units would not apply to owners or operators seeking to comply with those exempt annual acid rain emission limitations.

b. *Meaning of "Potential to Emit."* In determining whether a particular emissions unit at a major source would be subject to the proposed regulations, the owner or operator and the permitting authority must first determine an emissions unit's "potential to emit" an applicable regulated air pollutant. The definition of "potential to emit" considers the maximum capacity of an emissions unit to emit an air pollutant under the emissions unit's physical and operational design. Certain factors can be considered part of an emissions unit's design and thus reduce its maximum potential to emit. These factors include air pollution control equipment, restrictions on hours of

operation, or restrictions on the type or content of fuel or raw materials combusted, stored or used at a facility. In order to take these factors into consideration, however, the use of control equipment or other operating restrictions must constitute limitations that are enforceable by the Administrator. Because proposed part 64 would apply only to sources required to obtain a permit, such restrictions would have to be included as part of the operating permit applicable to the emissions unit. In contrast, under 40 CFR part 70, a federally-enforceable limitation may be outside of the operating permit because an owner or operator may rely on that limitation to avoid being considered a "major source" and, therefore, avoid having to obtain a part 70 operating permit.

A requirement to use control equipment or to adopt other operating restrictions will only be federally-enforceable if such requirement meets two criteria. First, the requirement either must be an "applicable requirement" under the Act as that term is defined under 40 CFR 70.2 or be a voluntary emission limitation assumed at the request of an owner or operator. As noted above, for the purpose of the proposed regulations, that voluntary limit would have to be included as part of the source's federally-enforceable operating permit. Second, the requirement must be enforceable as a practical matter.

The EPA has previously provided guidance on the issue of "federally-enforceable as a practical matter" in the context of new source permitting. (See "Guidance on Limiting Potential to Emit in New Source Permitting," Memorandum from Terrel E. Hunt, Associate Enforcement Counsel, Air Enforcement Division, and John S. Seitz, Director, Stationary Source Compliance Division, June 13, 1989. This document is included in the docket established for this rulemaking; see also the discussion in the preamble to the final rule revising 40 CFR parts 51 and 52 to amend the Federal enforceability requirements in those two parts (54 FR 27274, 27283, June 28, 1989).) A critical element of determining whether a restriction is in fact federally-enforceable is whether adequate monitoring, including recordkeeping and reporting requirements, exists. For instance, where add-on controls operating at a certain efficiency are used to limit an emissions unit's potential to emit, the guidance states that operating parameters must be included as enforceable conditions of any permit. In addition, in circumstances where setting appropriate operating parameters is

infeasible, short-term emission limits that reflect operation of the control equipment at the required efficiency level and requirements to use CEMS data to determine compliance may be used to limit an emissions unit's potential to emit.

Thus, for purposes of these proposed regulations, in determining the potential to emit of an emissions unit, an owner or operator may use control equipment as a means of defining potential to emit only if an operating permit includes enforceable conditions requiring the owner or operator to either:

- (1) measure and report on control device operating parameters to demonstrate compliance with specific operating parameter requirements established in the source's permit; or
- (2) use CEMS data to demonstrate compliance with a short-term emission limit which assures that the control system operates at the required efficiency.

Similarly, if a source uses operational restrictions to define its potential to emit (e.g., an operating time restriction), then the source's permit must require the source to record and report on the restricted operations (e.g., maintain and report on an operating log).

The EPA believes that the requirement that any restrictions on potential to emit must be enforceable in practice can assure that emissions units posing significant air quality concerns would not be able to avoid necessary monitoring requirements. In essence, the requirements that assure that the restrictions on an emissions unit's potential to emit are enforceable in practice would involve requirements to monitor facility operations that are similar to enhanced monitoring requirements. However, as noted in section I.B., EPA solicits comments on whether the applicability of enhanced monitoring should be based on uncontrolled rather than potential emissions. That approach would eliminate the need for EPA to oversee proper implementation of the potential to emit guidance on a permit-specific basis.

3. Exemptions

The proposed regulation would include five specific exemptions. First, § 64.1(c)(1) would provide that any emission limitation or standard developed pursuant to sections 404, 405, 406, 407(a) and 407(b) of title IV of the Act (the Acid Rain Program) would not be subject to part 64 requirements. Continuous compliance with these annual emission limitations created under title IV are subject to monitoring, reporting and certification requirements

under regulations promulgated on January 11, 1993 at 40 CFR parts 72-75 (58 FR 3590). Those requirements are sufficient to satisfy the enhanced monitoring requirements that would be required in the proposed regulations.

An emissions unit subject to title IV that meets the proposed part 64 applicability threshold for emissions units would still have to comply with part 64 with respect to other emission limitations or standards that may apply pursuant to a SIP or NSPS requirement. In that situation, the title IV monitoring requirements could be used to fulfill the proposed enhanced monitoring protocol requirements, since the monitoring could produce data useable to determine compliance with the other emission limitations or standards pursuant to an applicable NSPS or SIP provision. For this reason, the definition of "established monitoring" includes the Acid Rain Program monitoring requirements.

Because of the emphasis placed on the use of established monitoring in the proposed regulations (see section IV.D.5.) and the belief that owners or operators desire to minimize costs, EPA anticipates that owners or operators of title IV emissions units would in most instances use the required title IV monitoring to meet the enhanced monitoring requirements (using any appropriate conversion factors to report data in terms of the applicable emission limitation or standard).

Second, § 64.1(c)(2) would exempt from part 64 requirements any emission limitation or standard required to be monitored under section 603 of the Act concerning stratospheric ozone protection. The stratospheric ozone protection program is separate and distinct from the other programs under the Act, applies to producers of certain substances and not necessarily to the sources of emissions of those substances, and will be subject to separate monitoring and certification requirements for compliance purposes. The EPA believes that these circumstances warrant an explicit exemption from the proposed part 64 regulations for these applicable requirements.

Third, as discussed earlier in this section of the preamble, the proposed rule would specifically exempt all emission limitations or standards established pursuant to section 112 of the Act, except for standards established in 40 CFR part 61.

The fourth and fifth exemptions would be for requirements applicable to two source categories exempt under part 70: NESHAP standards for asbestos demolition and renovation projects, and

NSPS standards for residential woodheaters. Because neither of these source types is required to obtain a permit, it would be impractical to apply the proposed regulations to such sources.

5. Other Monitoring Requirements

The proposed enhanced monitoring program requirements would not affect the monitoring requirements that exist under other regulations. Other Federal and State regulations may impose additional or more restrictive monitoring requirements, and § 64.1(d) would act as an anti-backsliding provision to assure that those requirements are still met. Section 64.1(d) of the proposed regulation also would clarify that the part 64 requirements would not restrict the authority of States to adopt more stringent requirements under State laws and regulations, or to prevent the Administrator from requiring enhanced monitoring, testing, reporting or recordkeeping of any owner or operator when using other authority under the Act, including the Administrator's general section 114(a) authority.

B. Section 64.2—Definitions

This section of the proposed regulations would define the terms used in the regulations. Many of the proposed definitions would incorporate the language provided in other regulations developed under the Act, including part 70. As discussed above, these proposed regulations would be implemented through the operating permits program to a large extent, and EPA believes that the two regulations must be closely coordinated. The proposed regulations would rely explicitly on the part 70 definitions for "major source" (excluding any hazardous air pollutant source), "regulated air pollutant," and "responsible official."

Some additional definitions that are of particular importance will be noted here. Under section 302 of the Act, the terms "emission limitation," "emission standard," "means of emission limitation" and "standard of performance" are all used to define the types of standards that can be used to control emissions, ranging from a numerical mass emissions limitation to a general work practice requirement. These terms would include any "alternative" or "equivalent" emission limitation, emission standard, means of emission limitation or standard of performance that may be applied pursuant to the Act (e.g., an alternative means of emission limitation under section 112(h)(3) of the Act). The proposed regulations would combine

these terms into the single term "emission limitation or standard." The proposed regulations would then define "applicable emission limitation or standard" for purposes of part 64 as any such limitation or standard applicable to either a non-hazardous regulated air pollutant for which a source is considered a "major source" or a regulated hazardous air pollutant under 40 CFR part 61.

The proposed regulations would require that the data from an enhanced monitoring protocol be used to certify compliance. Thus, the protocol would have to provide sufficient data to determine whether compliance is "continuous or intermittent." The proposed terms "deviation," "continuous compliance," and "intermittent compliance" under § 64.2 would have a bearing on this determination of continuous or intermittent compliance.

The term "deviation" would be defined to include any condition which indicates that an emissions unit has failed to meet an applicable emission limitation or standard. The term deviation would include emissions that exceed an emission limitation or standard. It would also include a failure to meet a required minimum limit (e.g., a minimum incinerator combustion temperature limit). A deviation could also be a failure to observe a required work practice (e.g., failure to wet down a surface area or to repair a leaking seal at a bulk terminal).

These types of conditions include both actual violations of the limitation or standard, and conditions that would be violations except for a federally-approved or federally-promulgated exemption. One example of such an exemption is the limited exemption for startup, shutdown or malfunctions provided in many NSPS requirements. Regardless of whether a deviation would constitute a violation, all deviations would have to be reported.

The proposed regulations would also define the related terms "continuous compliance" and "intermittent compliance." An owner or operator would have to document three events in order to be in continuous compliance with an applicable emission limitation or standard. First, the owner or operator would have to obtain sufficient quality-assured data from the enhanced monitoring protocol to comply with the data availability requirement imposed by the permitting authority pursuant to § 64.4. Second, the data obtained from the enhanced monitoring protocol would have to document that the owner or operator remained in compliance with the applicable emission limitation

or standard throughout the reporting period. Third, if any other data were collected during the reporting period for the purpose of determining compliance, that data would also have to document that the owner or operator remained in compliance with the applicable emission limitation or standard throughout the reporting period.

In contrast, a source or emissions unit would be in "intermittent compliance" with an applicable emission limitation or standard if, during the reporting period, either the data availability requirement was not satisfied because insufficient quality-assured data was obtained from the enhanced monitoring protocol, or the owner or operator violated the applicable emission limitation or standard because a deviation occurred during a period for which no federally-approved or federally-promulgated exemption applied.

Other proposed definitions are discussed as necessary in the context of the individual sections of the proposed regulations.

C. Section 64.3—Implementation Requirements

Section 64.3(a) of the proposed regulations would require that the requirements of part 64 be implemented through the operating permits program under 40 CFR part 70 and the preconstruction permits programs developed under parts C and D of title I of the Act. Sections 64.7 and 64.8 of the proposed regulations would provide the details of how permit applications and permits must address enhanced monitoring requirements (see section IV.G. below).

The proposed regulations do not specify how operating permit applications received prior to the effective date of these proposed regulations should be treated. Under 40 CFR part 70, a source must include in its permit application proposed monitoring procedures only for all promulgated or approved regulations. However, in the event that a permit application is submitted but not approved prior to the effective date of the part 64 requirements, EPA anticipates that, pursuant to 40 CFR 70.5(b), the permitting authority will require the source to submit the necessary supplemental information.

The proposed regulations also do not specify how operating permits issued prior to the effective date of these proposed regulations would be treated. However, 40 CFR 70.7(f)(1)(i) requires that if three or more years remain in the term of a permit, a permit must be reopened to add applicable

requirements that become effective after issuance of the permit. Because State operating permits program submissions are due by November 1993 and EPA has twelve months to approve or disapprove the submittals, EPA believes few permits will be approved before promulgation of part 64; therefore, it is unlikely that many permits would have to be reopened for the purpose of adding enhanced monitoring requirements.

With respect to new source permits, the proposed regulations would not apply if an owner or operator has received a preconstruction permit or has submitted a complete preconstruction permit application prior to the effective date of the proposed regulations. In those instances, § 64.3(c) would require the owner or operator to satisfy part 64 requirements only when the owner or operator is required to receive an operating permit under part 70. However, if the source files a joint preconstruction and operating permit application, then, as discussed above, the owner or operator would be required to supplement the application prior to permit issuance.

Section 64.3(d) would clarify that any change in an approved enhanced monitoring protocol would require a significant permit modification under 40 CFR 70.7. That approach is consistent with 40 CFR 70.7(e)(4) which requires a significant permit modification for any significant change to an underlying monitoring requirement. In addition, § 64.3(d) would apply to situations in which an emissions unit is modified after issuance of an operating permit in such a manner as to trigger the applicability of part 64 requirements or to make an existing approved enhanced monitoring protocol no longer capable of meeting the requirements of part 64. Because part 64 would rely on the permit application and issuance process as a vehicle for selecting an enhanced monitoring protocol, an owner or operator would not be able in such situations to comply with part 64 without the involvement of the permitting authority. Thus, § 64.3(d) would require that in such circumstances, the procedures for a significant permit modification under 40 CFR part 70 be followed.

The EPA believes that the significant modifications procedures would apply using the criteria provided in 40 CFR 70.7(e)(2)(i) even without this explicit language in proposed § 64.3(d). The EPA believes that this explicit cross-reference, as with the other references to permit applications, and permit terms and conditions provided in §§ 64.7 and 64.8 of the proposal, would assist in the

implementation of part 64, but would not modify any requirements or procedures adopted in 40 CFR part 70.

D. Section 64.4—Enhanced Monitoring Protocol Requirements

1. General Requirements

Section 64.4(a) would establish the basic requirements applicable to all enhanced monitoring protocols. This section would require that an enhanced monitoring protocol be capable of detecting deviations with sufficient representativeness, accuracy, precision, reliability, frequency, and timeliness to determine whether an emissions unit's compliance with applicable emission limitations or standards over the reporting period was continuous or intermittent. As noted in section III.B., Congress specifically stated that enhanced monitoring would be used to document compliance and facilitate enforcement against violations. Thus, these basic enhanced monitoring criteria rely on the statutory requirement that a source conduct enhanced monitoring that is sufficient to certify whether compliance is "continuous or intermittent."

To satisfy that requirement, enhanced monitoring data first must be "representative." For instance, where an enhanced monitoring protocol uses emission monitoring techniques, the sample taken by the monitoring device would have to be "representative" of the gas stream emitted from the emissions unit, and requirements for proper location of a sampling device would be an element of satisfying this criterion.

An enhanced monitoring protocol would also have to be verified initially as producing accurate and precise data and then be subject to quality assurance requirements to provide a check on monitor accuracy and precision over time. Relative accuracy or parameter correlation tests would be required to assure an accurate and precise correlation exists between the monitoring data and that from the applicable test method. In addition, the enhanced monitoring protocol would have to be "reliable," which would require that the protocol be able to produce data over time on a specific schedule without unreasonably frequent breakdowns and quality-assurance adjustments.

The frequency criterion would require that sufficient enhanced monitoring data be collected to provide an accurate assessment of the compliance status throughout the reporting period. As discussed earlier in section III.A., the frequency of data collection would be a function of the averaging time of the

applicable limitations or standards, the likely variability of potential emissions from an emissions unit, and the margin of compliance demonstrated by the source. Finally, the data also would have to be available on a timely basis to allow for determining compliance and reporting compliance status.

2. Parameter Monitoring Protocols

If a source proposes to use process or control device parameter monitoring, § 64.4(c) would require the owner or operator of a source to justify that a known and consistent relationship exists between the emissions subject to an applicable limitation or standard and the parameters being monitored. The general known and consistent relationship would then be specifically correlated for the particular emissions unit by comparing emission test method data with contemporaneous parameter monitoring data as part of the performance verification test procedures for demonstrating the system's effectiveness. Appendix C to the proposed regulations would provide the correlation test procedures for parameter monitoring.

One type of correlation that can apply to a limited number of parameter monitoring methodologies is where the owner or operator uses parameter data to predict emissions subject to an applicable emission limitation or standard. A common form of this approach is to use surface coating VOC content records and then calculate VOC emissions based on that process parameter data. Another example would be fuel sampling and analysis procedures that monitor the sulfur content of fuel to predict SO₂ emissions. Another example is the use of parametric relationships to predict NO_x emissions, such as is provided for in appendix E to 40 CFR part 75 (alternative NO_x monitoring for oil- and gas-fired peaking units subject to the Acid Rain Program based on a load/NO_x emission rate relationship). In all of these situations, appendix C of the proposed regulations would define the testing procedures, including a relative accuracy test, that would be required for such predictive parameter monitoring systems and procedures.

A second type of correlation, most common with control device parameter monitoring, is a demonstrated compliance correlation. The owner or operator first would select parameters to be monitored based on known relationships between parameters and emissions. The permit application would have to include general empirical or theoretical data to justify to the permitting authority that the

relationship exists and that non-monitored parameters will not adversely affect the relationship.

If the permitting authority approves an enhanced monitoring protocol based on this type of parametric relationship, then the owner or operator would monitor those parameters during a series of reference method tests that show compliance with an applicable emission limitation or standard to verify the performance of the approved protocol. The owner or operator would then use the measured parameter values to establish for each parameter a parameter value (or range of parameter values) that, if monitored and achieved, would assure that the compliance documented by the reference method tests would be maintained. For each separate parameter monitored, the value (or range of values) that would assure compliance with the applicable emission limitation or standard would be referred to as a "demonstrated compliance parameter level" (DCPL).

If an owner or operator chooses to propose a correlation process that results in a DCPL (or series of DCPL's if multiple parameters must be monitored to assure compliance), the proposed regulations would provide that a failure to achieve the DCPL (or any one DCPL if multiple DCPL's apply) will be deemed to be a deviation from the applicable emission limitation or standard. In essence, a DCPL would constitute a surrogate compliance/deviation measurement in place of the explicit terms of the applicable emission limitation or standard. It is important to note that part 64 would not state that a failure to achieve a DCPL is a deviation of a requirement separate from the applicable emission limitation or standard, but only a deviation from the applicable emission limitation or standard. However, under separate authority the permitting authority may include the DCPL as a separate federally-enforceable permit condition. For instance, a DCPL may be a federally-enforceable permit condition in a preconstruction permit issued under title I of the Act that serves as a federally-enforceable limit on an emissions unit's potential to emit.

Finally, it should also be noted that where an applicable requirement requires an owner or operator to comply with a parameter limitation, the use of parameter monitoring for purposes of enhanced monitoring with respect to that parameter limitation would be appropriate without having to conduct any correlation analysis. In these cases, however, the owner or operator would still have to demonstrate that the parameter monitor satisfied the general

regulatory criteria of representativeness, accuracy, precision, reliability, frequency and timeliness.

3. Fugitive Emissions Monitoring

Section 64.4(d) of the proposed regulations would allow a source to use a multi-point monitoring protocol where fugitive emissions would be subject to the proposed regulations. In this situation, EPA recognizes that for many sources, requiring separate monitoring at each fugitive emissions point would be impractical. For instance, many sources have VOC fugitive emissions from hundreds or even thousands of emissions points. These VOC fugitive emission points are generally not regulated separately, but are covered by leak detection and repair requirements applicable on a process unit or even a facility-wide basis. Where a process unit basis is used, these fugitive emissions would be subject to enhanced monitoring if the process (i.e., emissions) unit meets the proposed applicability thresholds for an emissions unit in proposed § 64.1(b). If a facility-wide requirement applies, then the fugitive points would be subject to the proposed regulations if the total of such emissions exceeded the applicability threshold because of the provisions in § 64.1(b) that combine emissions from a group of emissions units to determine applicability. (See the discussion of this issue in section IV.A.2.)

At other types of operations, fugitive particulate emissions can arise from certain mineral processing operations or can come from storage areas, roadways and other non-production facilities. Again, at many of those sources, the emission limitation or standard applicable to the fugitive emissions is a source-wide work practice standard or other set of operation and maintenance procedures. In this situation, these fugitive emissions points could be subject to the proposal if the combined emissions from all such points exceed the applicability thresholds in proposed § 64.1(b).

Under any of these scenarios, EPA believes it would be impractical to require that each separate fugitive emissions point be monitored separately. Because of that concern, § 64.4(d) would provide the owner or operator the ability to use multiple point monitoring of fugitive emissions. That provision would require only that a fugitive emissions enhanced monitoring protocol collect data that are sufficiently frequent to assure that representative periods of deviation are detected at each emissions point.

4. Protocol Performance and Operating Requirements

Section 64.4(b) of the proposed regulations would require that every enhanced monitoring protocol be subject to minimum performance specifications, performance verification, quality assurance and data availability requirements. Both instrumental and non-instrumental monitoring elements of an enhanced monitoring protocol would be subject to these general requirements, although only certain elements within each general category would apply to certain monitoring techniques.

To implement the requirements in § 64.4(b), appendices A through D of part 64 would provide general performance specifications (including installation, equipment and calibration gas specifications), performance verification test procedures and quality assurance procedures. For continuous emission and opacity monitoring systems, existing Federal requirements already have developed specific procedures for each of these areas. Each of the appendices would refer to these existing requirements and would require that, if such systems are used as part of an enhanced monitoring protocol, the existing requirements be followed in addition to any additional requirements imposed in the part 64 appendices. For elements of an enhanced monitoring protocol where those types of specific procedures are not available, the appendices would provide the basic criteria for establishing these procedures on a source-specific basis.

Section 64.4(b)(5) would state that a permitting authority could allow an owner or operator to adopt alternative procedures to those provided in appendices A through D. This decision would be especially important for CEMS's and COMS's for which some States have highly developed performance and quality assurance requirements that vary slightly from corresponding Federal requirements.

This section would require that any alternative procedures satisfy three criteria. First, the alternative procedures must have elements that correspond to the elements in appendices A through D. For instance, if a test to determine calibration error is required, the alternative procedure must also include a calibration error test.

The second criterion is that the alternative must provide relative accuracy, calibration error and measurement frequency specifications that are at least as stringent as the specifications in the part 64 appendices.

For instance, by cross-referencing appendix B of 40 CFR part 60, appendix A of part 64 would require a CEMS to satisfy a 20 percent relative accuracy specification. Similarly, by cross-referencing 40 CFR 60.13, appendix A would also require a gas CEMS to use four equally-spaced data points to calculate hourly averages.

The third and final criterion would require that the alternative procedures provide the same degree of confidence in the data from the enhanced monitoring protocol in terms of representativeness, accuracy, precision, reliability, frequency and timeliness. This criterion would apply to confidence at both the initial verification stage and over time as documented by quality assurance activities.

With respect to non-instrumental monitoring approaches, the requirements of § 64.4(b) and the appendices would apply only to the extent that they are relevant. For example, if leak detection monitoring involves the use of a portable VOC detection device, the requirements under § 64.4(b) would require that appropriate performance specifications, calibration and quality assurance procedures be followed for those devices, such as are required under 40 CFR part 60, appendix A, Method 21.

The basic performance and operating requirements of § 64.4(b) would be the following:

a. *Performance Specifications.* Section 64.4(b)(1) would require an owner or operator to satisfy performance specification procedures as set forth in appendices A and B of part 64. Those appendices provide general elements that all performance specifications must address, and in some cases create specific requirements. In addition, because existing requirements already impose specific performance specifications for CEMS's and COMS's, those specifications would be cross-referenced and would have to be followed to satisfy part 64.

The basic performance specifications that would have to be addressed are as follows:

Measurement frequency. Section 2 of appendix A would establish the criteria for evaluating the appropriate measurement frequency of an enhanced monitoring protocol. The required objective would be that measurements be performed frequently enough to allow the owner or operator to certify whether the owner or operator achieved compliance with an applicable emission limitation or standard on a continuous or intermittent basis, consistent with the

averaging time period of the permitted emission limitation or standard.

To satisfy this objective, the required specification would be that the owner or operator specify a frequency of measurements for the elements of a protocol and for calculating averages of data points that are commensurate with the averaging time of the emission limit. Measurement frequency would have to be sufficient such that the enhanced monitoring protocol can provide data within each averaging period during operation of an emissions unit, with two exceptions.

First, the requirements for measurements within each averaging period would not apply if measurements are not obtainable because of periods of allowable monitor downtime to perform quality assurance and routine maintenance as provided in § 64.4(b)(4).

Second, the permitting authority may approve less frequent measurements where the owner or operator demonstrates that the potential variability of emissions, when considered in conjunction with the margin of compliance demonstrated for the emissions unit, is sufficiently low so that a determination of continuous or intermittent compliance does not require data to be collected within each averaging period. In such circumstances, the measurement frequency would have to be established at a level that can reliably determine if compliance is achieved on a continuous basis.

Relative accuracy. Relative accuracy is an evaluation of monitor accuracy by correlating data from the enhanced monitoring protocol with that of a specified reference emission testing method (RM) over a series of measurements under actual source conditions. A relative accuracy test consists of a series of at least nine comparison measurements.

The owner or operator would have to specify in a permit application a proposed relative accuracy specification in terms of ranges of measurement or the permitted emission limitations or standards. The stringency of the proposed relative accuracy would have to be at least 20 percent, which is the relative accuracy required for a CEMS pursuant to appendix B of 40 CFR part 60. The demonstration that the enhanced monitoring protocol achieves the proposed relative accuracy would be determined as part of the verification tests required by appendix C.

Some types of monitoring methodologies would not require a relative accuracy specification. First, a parameter monitoring system would

only require a relative accuracy specification if the owner or operator intends to use the parameter monitoring to predict emissions (such as fuel sampling and analysis used to predict SO₂ emissions). In place of the relative accuracy requirement, specifications for parametric relationships, verified by correlation tests establishing parameter levels that demonstrate compliance with emission limitations or standards, would be required. These correlation test procedures would be similar to the relative accuracy test procedures except that the relative accuracy equation applied to the test results would not be used. Parameter correlation testing may also require testing under a broader range of operating conditions. (See the preceding section IV.D.2. for a discussion of parameter monitoring.)

Second, a relative accuracy specification and test requirements would not apply to a continuous opacity monitoring system because there is no scientifically independent test method for determining in-stack opacity. This approach is consistent with existing requirements for opacity monitors. (Theoretically, an owner or operator could propose to use a COMS as a predictive parameter methodology for predicting particulate emissions, in which case a relative accuracy specification and test would apply. In practice, this use of a COMS is not expected to occur given the greater burden of establishing a predictive, as opposed to demonstrated compliance, relationship between opacity levels and particulate emissions.)

Calibration error. Calibration error is the difference in enhanced monitoring protocol output readings from an established reference value (e.g., known concentration of the cylinder gas, value of a parameter, or concurrent emission measurements) after a stated period of operation during which no unscheduled maintenance, repair, or adjustment to the monitoring protocol takes place. To assure accuracy over the measurement range, the owner or operator would have to propose in the permit application a level of calibration error, with no single comparison measurement during a test for calibration error to exceed ±5 percent. Appendix C would specify the initial test procedure to check calibration error at the low, mid, and high measurement levels. As discussed below in this section, the proposed quality assurance plan would have to include procedures for periodic calibration error checks both at low and high measurement levels, and, at less frequent intervals, at low, mid, and high measurement levels. The permitting authority would have discretion to

approve fewer measurement levels where appropriate.

Measurement span. Measurement span is the anticipated range of emissions or parameters that must be measured to determine the compliance status of the affected emissions unit with the applicable emission limitations or standards. The owner or operator would have to consider the measurement span in any existing regulation and propose a span for the enhanced monitoring protocol which meets any required measurement span. Where no existing span requirement applies, the owner or operator would have to propose a span that is sufficient to assure that the enhanced monitoring protocol can provide accurate data for all potential emission or parameter values that may occur.

There are two types of span specifications. First, some spans include all potential concentrations. This type of specification may require multiple range pollutant or flow analyzers and parameter instrumentation in the enhanced monitoring protocol to meet the required accuracy. The frequency of measurements also may be affected. Second, some spans include a limited range of emission concentrations or correlated parameter ranges. This type of specification sets an upper limit that normally includes the permitted levels plus a range or value beyond the permitted emission standard or parameter limitation (e.g., 1.25 times the parameter or emission limitation).

Response time. Response time is the time interval between the start of a step change in the system input (e.g., change of calibration gas or change in source concentration) and the time when the data acquisition and handling system (DAHS) displays 95 percent of the final value. This type of response time is most important when time-sharing of enhanced monitoring protocols among two or more measurement locations occurs, or when the regulations require an enhanced monitoring protocol to measure short duration permit limitation exceedances, e.g., concentration spikes.

Response time also would be defined to include the time interval between the initial accumulation of information to assess the affected emissions unit's emissions and the availability of the information for emission level status review. Thus, for a VOC surface coating operation, response time could be the review within 24 hours of the daily records and coating analyses to determine compliance with a daily VOC limitation.

The owner or operator would have to include in a permit application a

proposed response time specification for the enhanced monitoring protocol that includes upscale and downscale response times for all instrumental components of the protocol, and a combined response time for the system output. The combined response time would have to be commensurate with the measurement frequency requirements. Since response time is inherently rapid with some instruments, the permitting authority would have the authority to waive the individual component specification. Finally, where a proposed protocol includes recordkeeping procedures to assess compliance, the response time specification would have to reflect the time interval appropriate for analyzing such records and providing an output that relates to the compliance status of the monitored emissions unit.

Parametric relationship. If a proposed enhanced monitoring protocol includes the use of parameter monitoring, a parametric relationship specification would apply. The parametric relationship is the known relationship between the monitored parameters and the applicable emission limitations or standards. Requirements for parametric relationship specifications would not apply where the emission limitation or standard is already expressed in terms of the monitored parameters. For example, no parametric relationship specification would apply if an owner or operator proposed to use a fuel sampling and analysis protocol to monitor compliance with a sulfur in fuel standard.

Appendix A would establish a two-step process for establishing a parametric relationship specification. In the permit application, an owner or operator would be required to propose a general specification, describing the known relationship. The owner or operator would have to provide general empirical or theoretical data to justify the general specification. Finally, the application would have to include the correlation test plan the owner or operator would use to refine and verify the known relationship.

The second step would be to perform the correlation tests to further establish and verify the known relationship. Based on these tests, the owner or operator would describe the correlation in the form of an equation or graph if the owner or operator intends to use the parameter monitoring to predict emissions, emission rates, or control efficiency rates. If the owner or operator intends to establish parameter levels that demonstrate compliance with an emission limitation or standard, then the correlation would be described in

the form of a minimum or maximum value (or range of values between a minimum and maximum value) for one or more parameters that, if achieved, assures compliance with an emission limitation or standard.

Measurement technique procedures. An enhanced monitoring protocol that includes recordkeeping or qualifies under § 64.4(d) as multiple fugitive emissions point monitoring would have to include appropriate measurement technique procedures. For instance, a protocol that relies primarily on calculating VOC emissions from coating manufacturer formulation data would also have to include periodic measurements of coatings to verify the accuracy of the formulation records.

Measurement technique procedures may include, but are not limited to: Method 9 or 22 of appendix A of part 60 of this chapter for opacity or particulate emission limitations; Method 21 of appendix A of part 60 of this chapter for volatile or toxic organic compound leak detection and repair programs; Method 19 of appendix A of part 60 of this chapter for sulfur dioxide emissions from combustion devices without control devices; and Method 24 of appendix A of part 60 of this chapter for VOC content of coatings. The owner or operator would have to consider the measurement technique procedures in any existing regulation and propose a measurement technique procedure that is based on the affected emissions unit's operation.

b. Equipment, Installation and Calibration Gas Specifications. Appendix B would establish requirements for equipment design and location, and for calibration gas materials. For other types of enhanced monitoring protocols, specifications for equipment design and location, and calibration reference materials, would have to be handled on a case-by-case basis in order to assure that representative measurements are obtained by the monitoring protocol.

c. Performance Verification Test Procedures. Verification that the monitoring procedures or systems provide data that satisfy all of the regulatory criteria is an essential part of enhanced monitoring. Section 64.4(b)(2) would require, as provided in appendix C to the proposed regulations, that an owner or operator conduct certain test procedures similar to those under existing programs. The three basic tests that would be required, as applicable, are a calibration error test, response time test and relative accuracy test. Where existing Federal provisions contain requirements that satisfy these general test requirements, the owner or

operator would not be required to conduct separate verification tests under part 64. In addition, appendix C would specify the procedures for correlation of parameter monitoring to an applicable emission limitation or standard. This concept was discussed above in section IV.D.2.

d. Quality Assurance. Section 64.4(b)(3) would require that an owner or operator conduct quality assurance activities that are designed to identify periods of unreliable data in accordance with the specifications in appendix D to the proposed regulations. If the enhanced monitoring protocol uses a CEMS, appendix D would require the owner or operator to follow appendix F of 40 CFR part 60 as well as any additional general requirements in appendix D. If the protocol uses a COMS, appendix D would require that 40 CFR part 51, appendix M, Method 203 also be followed as well as any additional general requirements in appendix D.

Of course, the permitting authority could allow the use of alternative procedures as described above and thus appendix F or Method 203 would not have to be followed exactly. Some existing quality assurance provisions, while fundamentally similar, may have slight variations that EPA believes should be allowed to remain without requiring duplicative efforts (e.g., the Commonwealth of Pennsylvania has established different quality assurance requirements from appendix F).

Where systems or procedures other than a CEMS or COMS are used, the proposed regulations would require that the enhanced monitoring protocol include procedures that satisfy the general elements described in appendix D to part 64. The quality assurance plan would have to include a program of frequent (e.g., daily) and less frequent (e.g., quarterly and annual) checks of an enhanced monitoring protocol. Quality control programs used for the certification of emissions and enhanced monitoring protocol output verification could include daily, quarterly and annual evaluations. Such programs would not be limited to just instrumental sampling and analysis, but also quality assessments of material inventories used for establishing affected unit emissions. The rigorosity and frequency of assessment would have to be commensurate with the proposed protocol and would be proposed by the source owner or operator at the time of permit application for incorporation into the permit. The basic elements to be included would be:

Quality control (QC) checks and error assessments. QC checks and error assessments (e.g., temperature and pressure recording devices have failed) would have to be done daily, unless the permit applicant can justify less frequent assessments to the permitting authority. For recordkeeping components of a proposed protocol, the QC checks would have to involve checking the data forms to see that all required information is recorded and the information is recorded correctly. For a proposed protocol that involves instrumental measurements, the QC checks would have to describe the procedure for checking the calibration error of each instrument at the zero (low) and span (high) levels. Alternatives could be used subject to the approval of the permitting authority.

The proposed quality assurance plan would also have to specify the criteria for excessive error, i.e., when the enhanced monitoring protocol's data are invalid (e.g., outside performance specifications including recording of insufficient information). The plan proposed by the owner or operator would have to ensure that the beginning and ending times of the invalid data period are identified.

Data accuracy assessment. The QA plan would have to include procedures (e.g., calibration error, relative accuracy testing, inventory assessment, or fugitive emission assessment plan review) for a quarterly and annual assessment of the proposed protocol's data accuracy and would have to specify the criteria for excessive error (e.g., does not meet the relative accuracy requirement or fails to statistically prove that leaks were less than 1 percent of all potential leaks).

Minimum data availability. The proposed regulations require owners or operators to operate and maintain an enhanced monitoring protocol to ensure quality data during all times when an emissions unit is operating, except during defined periods of calibration, routine maintenance, and QA activities. The QA plan submitted by the owner or operator as a part of an enhanced monitoring protocol would have to include an identification of and justification for the periods of monitor downtime associated with QA activities and accounting for and responding to mechanical breakdowns. This topic is discussed in the section following this discussion of quality assurance plan requirements.

Reporting and recordkeeping. The requirements for reporting and recordkeeping for enhanced monitoring protocols would be provided in §§ 64.5 and 64.6. The QA plan proposed by the

owner or operator would have to detail how the information necessary for conformance with those sections will be obtained and maintained.

e. *Data Availability.* Section 64.4(b)(4) would require that an enhanced monitoring protocol satisfy a data availability requirement. For some enhanced monitoring protocols, an applicable NSPS or NESHAP may already include a data availability requirement (e.g., 40 CFR part 60, subpart Ea includes a data availability requirement for SO₂, NO_x, CO, and temperature monitoring systems at municipal waste combustors). The proposed regulations would allow an owner or operator to use such existing requirements where applicable. The proposed regulations would not rely on existing data availability requirements in SIP's because of a concern that such data availability requirements may not have been designed to support monitoring used for determining continuous compliance.

Where an existing Federal data availability requirement does not apply, the owner or operator must generally provide quality-assured data for all periods of emissions unit operation (consistent with the required measurement frequency of data collection for the enhanced monitoring protocol). The only acceptable downtime would be the period of time that the owner or operator justifies to the permitting authority (and that the permitting authority approves) as necessary to conduct required quality assurance activities, including routine maintenance. Pursuant to § 64.8, the permitting authority would include a data availability requirement in the permit (often expressed as a percentage of operating time) that reflects the proposed requirements of § 64.4(b)(4).

The EPA has received input from several industry representatives that have argued for an exception to a data availability requirement if a sudden and unforeseeable event causes elements of a protocol to be out of service for an extended period. In response to those concerns, § 64.4(g)(2) would provide that where an enhanced monitoring protocol fails to perform due to a sudden and unforeseeable monitor malfunction beyond the control of the owner or operator (e.g., a lightning strike), the owner or operator could use the existence of that malfunction as an affirmative defense against a violation of the data availability requirement (imposed pursuant to § 64.4(b)(4)) that occurs as a result of the malfunction. (There would be, however, a duty to submit other interim monitoring data if the enhanced monitoring protocol is

down for an extended period; see Section IV.D.6.)

Monitor failures that are due in whole or in part to poor maintenance, careless operation or other preventable conditions would not be considered to be "malfunction" events "beyond the control of the owner or operator." In addition, if an enhanced monitoring protocol for a particular emissions unit includes a backup monitoring system, including statistical missing data procedures, the malfunction of the primary monitoring system would not relieve the owner or operator from employing the backup system or procedures. In addition, the defense does not preclude the Administrator or the permitting authority from requiring additional testing and monitoring or from taking enforcement action based on that or any other credible information.

Finally, § 64.4(g)(3) would clarify that the owner or operator has the burden of proof at all times that a monitor failure was in fact a sudden and unforeseeable malfunction. (For further discussion of notice and other requirements related to monitor failures generally, see section IV.D.6. below.)

5. Proposed Enhanced Monitoring Protocol Evaluation and Demonstration

Sections 64.4(e) and (f) would detail the procedures an owner or operator must follow in order to obtain approval of an enhanced monitoring protocol, and the consequences of failing to achieve compliance with enhanced monitoring requirements. As a starting point, the owner or operator would have the option to first evaluate the best "established monitoring" (as defined in § 64.2) for the particular emissions unit. As discussed in section I.B.1., the determination of what is the "best" monitoring would focus on what is the best means for the particular emissions unit to determine continuous compliance, not what is the "best" technologically available monitoring system.

Established monitoring would include any monitoring methodology that has already been evaluated by EPA and determined to be a feasible means of assessing compliance with an emission limitation or standard for a specific type of emissions unit at a source. The types of monitoring that would be included are:

- (1) Monitoring identified in an applicable subpart of 40 CFR part 60 or part 61 (NSPS and NESHAP standards);
- (2) Appendix P of part 51 (SIP CEMS requirements);
- (3) Monitoring requirements in implementation plans approved or

promulgated by the Administrator pursuant to Title I of the Act that reflect a Control Technique Guideline published by the Administrator under section 108 of the Act;

(4) Monitoring requirements established in any preconstruction permit issued pursuant to regulations approved or promulgated through rulemaking under title I, including parts C or D, of the Act; and

(5) Monitoring requirements established in 40 CFR part 75.

This type of established monitoring would be of most assistance to SIP sources that can look to NSPS or new source review permit requirements to assess the types of monitoring that are required of new facilities within a similar source category. The reader should also note that the reference to new source permits has been included with the knowledge that the "established monitoring" in these permits will vary. The EPA recognizes that many older permits may in fact have monitoring that would no longer be considered adequate and would not likely satisfy enhanced monitoring requirements. The EM Reference Document will provide a list of generally applied monitoring in new source review permits that could potentially be used to satisfy part 64 as well as general guidance on how the owner or operator can access information on monitoring requirements in new source review permits that could be used for enhanced monitoring purposes.

The "established monitoring" methodology could be one that has been established for the purpose of either determining compliance or merely indicating compliance. Thus, a monitoring methodology could qualify as established monitoring and not necessarily satisfy enhanced monitoring requirements. Therefore, an owner or operator that proposes a monitoring methodology in its enhanced monitoring protocol that qualifies as established monitoring still would be required to justify that the methodology would be able to satisfy the requirements for enhanced monitoring in part 64. The owner or operator would not be required to compare its proposed monitoring against other potential monitoring methods, even if other established monitoring methods may apply.

Established monitoring that is already used to determine continuous compliance would likely satisfy enhanced monitoring requirements without any additional enhancements. However, other forms of established monitoring could often require

enhancements in order for the monitoring to satisfy enhanced monitoring requirements. Examples of the types of enhancements that could be required include: (1) Imposing quality assurance procedures, (2) requiring more frequent measurements, or (3) establishing a data availability requirement.

Unless the owner or operator proposes to use established monitoring, § 64.4(e)(2) would require an owner or operator to identify all technologically feasible monitoring methodologies for a particular emissions unit. The owner or operator would then be able to select and propose the identified methodology that best satisfies at the particular emissions unit all of the technical criteria for an enhanced monitoring protocol. Again, in determining what is the "best" monitoring for the particular emissions unit, the owner or operator would take into account circumstances at the particular emissions unit and not necessarily be required to propose the "best" technologically feasible monitoring system.

Section 64.4(e)(3) would state that an owner or operator has the burden of proof to justify that a proposed enhanced monitoring protocol can satisfy all of the enhanced monitoring requirements in part 64. To assist the owner or operator in meeting this burden, § 64.4(e)(3) would state that, in accordance with § 64.7, a permit application include all necessary information concerning the proposed enhanced monitoring protocol.

Section 64.7(b) would provide a general requirement that a permit application include all descriptions, explanations, justifications, and supporting information necessary to show that a proposed protocol can satisfy part 64 requirements. Section 64.7(b) then provides a list of particular types of information to be included.

The application would have to include a complete description of the proposed protocol. The description would have to include a description of the components and procedures that comprise the protocol. This type of information should include manufacturer literature and model number of any instrumental components. The description should also include scaled drawings of the emissions unit that indicate the location of any fixed monitor components, or sampling locations for non-fixed components. This type of description would also have to include calculation, data reduction and conversion, and similar types of procedures. The description would also have to include, as applicable, all performance,

equipment, and installation specifications; a proposed quality assurance plan; and a proposed data availability requirement.

The permit application would also have to describe the physical and operational characteristics of the emissions unit and any potential interferences or other adverse impacts on the proposed protocol that such characteristics may have. This information will be essential for the permitting authority in determining whether the proposed protocol can satisfy the part 64 requirements given the expected range of facility operations.

Second, the permit application would have to include justifications for the specifications, quality assurance procedures and data availability requirement proposed by the owner or operator. This type of information could include, for instance, a justification for reduced measurement frequency based on the potential variability of emissions and the demonstrated margin of compliance at the emissions unit. (See section IV.D.4.a. above.)

The third type of information that would be included relates to the evaluation process. If required, the owner or operator would list the monitoring methodologies identified as technologically feasible and then provide documentation of any evaluations conducted. In all instances, however, the owner or operator would have to explain how the proposed monitoring could provide sufficiently representative, accurate, precise, reliable, frequent and timely data to detect deviations and determine whether compliance is continuous or intermittent.

The fourth item that § 64.7(b) would require to be included in a permit application is a test plan and schedule for conducting performance verification testing in accordance with appendix C that includes the elements described in § 64.4(f).

Section 64.4(f) would require that the plan describe the conditions under which tests will be performed, the reference test procedures to be employed, and any other pertinent or unique information that describes the testing approach. If the proposed enhanced monitoring protocol includes the use of parameter monitoring, then the test plan would have to include the correlation test procedures to be employed. This would include a description of the operating conditions to be varied during the correlation test to demonstrate the validity of the correlation over the potential range of facility operations. The test plan would also have to describe any parameters not

monitored as part of the protocol that could affect the correlation and demonstrate that excluding such parameters will not adversely affect the validity of the correlation.

Section 64.4(f)(2) would establish as a general requirement that all testing be completed and test results submitted "as expeditiously as practicable" after approval of the selection of the proposed enhanced monitoring protocol, and would require that an enforceable test schedule be included in the permit that reflects this general duty. No outside date for completion of the tests would be specified in the regulation because of the wide variety of systems and procedures to be tested and the desire not to establish that outside date as the presumptive norm for all types of enhanced monitoring protocols. For instance, if an enhanced monitoring protocol involved the proposal to install and operate a continuous opacity monitoring system, "as expeditiously as practicable" would have to provide a significant period to allow time for delivery and installation prior to conditioning and operational test periods, and performance tests. On the other hand, if the enhanced monitoring protocol involved the use of a previously installed continuous opacity monitoring system, "as expeditiously as practicable" would require less time because there would be no allowance for delivery and installation.

Once an owner or operator has completed the performance verification tests, § 64.4(f)(3) would require that the enhanced monitoring protocol be operated and maintained in accordance with all requirements, including quality assurance procedures. The owner or operator would also have to record and report data as required under part 64.

Section 64.4(f)(4) would then detail under what circumstances the owner or operator would be considered to have failed to achieve compliance with enhanced monitoring requirements. The proposed regulations would list three instances in which such failure could occur:

- (1) If the owner or operator fails to submit complete test results;
- (2) If the test results submitted demonstrate that the enhanced monitoring protocol fails to satisfy the applicable performance specifications and other requirements for the enhanced monitoring protocol specified in the permit; or
- (3) If, after approval of test results, the permitting authority or EPA obtains information that a previously approved enhanced monitoring protocol no longer is achieving the performance

requirements of the proposed regulations.

The proposed regulations do not specify what actions will be taken upon a failure to achieve compliance with part 64. Under these circumstances, the owner or operator would be subject to enforcement, including administrative or judicial actions depending upon the circumstances. Section 64.4(f)(5) of the proposed regulations would specifically state that one non-exclusive option available to EPA or the permitting authority upon a failure to achieve compliance would be to reopen the source's permit to assure compliance with part 64. This explicit provision would clarify the general authority under 40 CFR 70.7(f)(1)(iv) of the operating permit regulations, and is not intended in any manner to alter the requirements of part 70.

6. Monitor Failures

Sections 64.4(g) and 64.5(e) of the proposed regulations would establish requirements for responding to monitor failures. Section 64.4(g) would detail the types of monitor failures that could occur and the owner or operator's general obligations as a result of the failure. Section 64.5(e) would detail the notice and reporting requirements.

For any failure that has the potential to interrupt the normal operation of an enhanced monitoring protocol for more than 48 hours, the owner or operator would have to notify the permitting authority. The notice would have to be in accordance with notification requirements established by the permitting authority, or, if there are none, within 24 hours.

The next required step to address a monitor failure would be to correct the problem and return the monitoring protocol to normal operation. Section 64.5(e)(2) would require the owner or operator to certify that the corrective action has taken place and that the enhanced monitoring protocol has resumed operation and production of valid quality-assured data within two weeks of the failure.

There may be certain monitor failures that cannot feasibly be addressed within a two-week timeframe. In these instances, instead of the two-week certification, § 64.5(e)(3) would require the owner or operator to submit for approval by the permitting authority a proposed corrective action plan that addressed two separate issues: correcting the problem and collecting data in the interim. The proposed plan would have to be submitted within two weeks of the failure.

To address how the owner or operator intends to correct the failure, the

proposed plan would have to include a schedule with milestones to correct the failure as expeditiously as possible, but in no event later than six months after the occurrence of the failure. For interim monitoring, the owner or operator would have to provide substitute monitoring to determine compliance; the permitting authority could accept substitute monitoring that does not satisfy all of the enhanced monitoring performance and operating criteria in § 64.4(b) of the proposed regulations.

As noted earlier in section IV.D.4., where an owner or operator can prove that a monitor failure occurs as a result of a sudden and unforeseeable malfunction, the owner or operator would be able to use that occurrence as a defense against an alleged violation of the data availability requirement. Where the defense does not apply, the owner or operator would be subject to enforcement for alleged violations that result from the monitor failure. The proposed notice and other reporting requirements for monitor failure (i.e., either a certification that corrective action is completed or a proposed corrective action plan) are not intended to excuse the failure or in any way limit the permitting authority, the Administrator or a citizen (to the extent permitted under section 304 of the Act) from seeking enforcement against the owner or operator for any alleged violation of the proposed regulations.

E. Section 64.5—Reporting Requirements

1. General Requirements

Section 64.5 of the proposal contains the basic reporting requirements that each major source would have to meet to satisfy section 114(a)(3) of the Act. First, § 64.5(a) of the proposed regulations would require that a responsible official for a source subject to these regulations use the enhanced monitoring data (and any other data collected for the purpose of determining compliance during the period) as the basis for an annual compliance certification submitted under 40 CFR part 70 for those emissions units and emission limitations or standards that are subject to these proposed regulations.

Section 64.5(a) would create an interim exemption from this requirement where an underlying SIP requirement establishes a different method as the exclusive method for certifying compliance. As discussed below in section IV.K., EPA plans to issue a SIP call to cure this problem, but is concerned that there may be some

time period when permits are being issued prior to the correction of the underlying SIP. Section 64.5(a) would allow the source to use the SIP method until the underlying provision is changed. The permitting authority and the owner or operator could also at the time of permit issuance specify in the permit that when the SIP provision is corrected, the approved enhanced monitoring protocol could be used for certifying compliance. Unless that type of provision is included in the permit, the permit would have to be reopened to allow for the enhanced monitoring protocol to be used as a basis for a compliance certification. This topic is discussed in further detail in section IV.K.

Second, a responsible official would have to submit quarterly enhanced monitoring reports. Section 64.5(b) of the proposal would require a report for each enhanced monitoring protocol used at a source.

2. *Content of the Report.* Section 64.5(b) of the proposed regulations would outline the general information that must be included in an enhanced monitoring report. The proposed reporting requirements are based primarily upon the summary monitoring reports required for NSPS sources pursuant to 40 CFR 60.7.

First, § 64.5(b)(1)-(7) would require that a report contain basic information concerning the source, the emissions unit and the enhanced monitoring protocol. Second, the report would have to identify the pollutant and applicable emission limitations or standards for which information is being provided. Finally, the basic information would have to include the calendar period covered by the report and the operating time for the emissions unit during the period. Operating time information is necessary to ensure compliance with applicable monitoring data availability requirements and to provide a normalized basis for assessing the total duration of deviations.

Following the basic data requirements, § 64.5(b) would specify that the report summarize the monitoring results for the quarter. The report would identify the number and duration of deviations detected by enhanced monitoring. The proposed regulations would require that deviations be classified by reason for the deviation, including known causes for which a federally-approved or federally-promulgated exemption from an emission limitation or standard applies, unknown causes, and known causes for which no federally-approved or federally-promulgated exemption from an emission limitation or standard

applies. This approach is consistent with the summary report format under the NSPS general provisions.

Under the proposal, deviations are not necessarily violations and would be reported whether they are in fact violations of the standards. For example, even if deviations are exempt under existing regulations, these deviations would be reported, with an indication that the owner or operator believes the deviations to be from known causes but exempt under applicable requirements. The EPA considers this requirement necessary, in part to ensure that the reports do not omit any potential violation based on an interpretation made by the owner or operator, and in part to help the reviewing agency ensure that proper action was taken to minimize excess emissions or other deviations. The proposed requirement to report exempt deviations is also consistent with EPA's longstanding policy on the reporting of exceedances under the NSPS program pursuant to 40 CFR 60.7.

The proposed regulations would not require that information concerning the magnitude of each deviation be reported, nor would supporting documentation be required in all submissions. However, where the owner or operator identifies any deviation as resulting from a known cause for which no federally-approved or federally-promulgated exemption from an emission limitation or standard applies, or where deviations occur for a certain percentage of the emissions unit's operating time, then §§ 64.5(b)(11) and 64.5(b)(12), respectively, would require that the report include full documentation pertaining to all periods of violations and deviations, including magnitude information.

The proposed rule would allow the permitting authority to establish the appropriate percentage threshold for not including full documentation on a case-by-case basis, but not to exceed five percent. This requirement is similar to the NSPS approach (see 40 CFR 60.7(d)(1)), but provides greater flexibility in establishing the exact operating time percentage. The EPA believes that this flexibility is appropriate given the large variety of sources that will be covered by these proposed rules.

The report would also have to include information on the performance of the enhanced monitoring protocol. First, the report would specify the data availability achieved during the reporting period. Second, the report would have to identify any periods in which the protocol was not operating in accordance with its design while the

emissions unit was in operation, or in which the protocol was operating but producing data that did not meet data quality requirements. Again, this approach would be consistent with NSPS reporting requirements for monitor performance.

Similar to the deviation reporting provisions, § 64.5(b)(13) would require that documentation pertaining to all periods of monitor downtime be submitted only if a monitoring protocol failed to achieve an established percentage of data availability. Again, the permitting authority would establish the percentage on a case-by-case basis, but the percentage could not be less than the data availability requirement established in the permit for the enhanced monitoring protocol.

Following the basic data requirements and the deviation and monitor downtime summaries, § 64.5(b)(10) would require that the report indicate the compliance status of the emissions unit with those emission limitations or standards monitored pursuant to part 64. The report would indicate the compliance status as of the end of the reporting period and whether compliance was continuous or intermittent during the reporting period. This information would act as a summary of compliance based on the reported monitoring data and monitor operation information.

Section 64.5(b)(14) would require that the report also include a narrative description and the results, if applicable, of any other required activity related to compliance with an applicable emission limitation or standard for which information is being provided or to an enhanced monitoring protocol requirement (other than quality assurance activities). This provision is necessary so that all information relevant to compliance with an applicable limitation or standard, or with the enhanced monitoring requirements of the proposed regulation, is obtained in the report.

One example of the information that could be required pursuant to this section is data related to the performance of an enhanced monitoring protocol for fugitive emissions. For instance, for some leak detection and repair programs, the existence of a leak may not constitute a deviation that must be reported under § 64.5(b)(8). However, the permitting authority may need to obtain a summary of the number of leaking points found and the number repaired in order to determine whether a deviation has occurred. (This approach would be consistent with existing NSPS leak detection and repair reporting; see, for example, 40 CFR

60.487.) The proposed language of § 64.5(b)(14) is intended to be broad enough to allow such information to be included in the report where these special circumstances exist.

The proposed regulations would also establish certain other procedural requirements for enhanced monitoring reports. Under § 64.5(c), the report would have to be signed by a responsible official as defined under 40 CFR part 70 who would certify as to the truth, accuracy and completeness of the report reciting verbatim specific certification language in the proposed regulation. This requirement would mirror the certification of reports required under the Acid Rain Program (40 CFR part 72) and the National Pollutant Discharge Elimination System (NPDES) under the Clean Water Act (see 40 CFR part 122). In addition, § 64.5(d) of the proposal would require that the report be postmarked no later than thirty days following the last day of the reporting period.

As noted above, the reporting elements in proposed § 64.5 are modelled in major part after 40 CFR 60.7, which sets forth reporting requirements for continuous monitoring systems and monitoring devices for NSPS sources. Similar to the approach under § 60.7, EPA has developed a standard summary report format for this program. Although the proposed rules would not require use of this example format, its use by permitting authorities and owners or operators of affected emissions units would be strongly encouraged because the summary format would reduce the burden for owners or operators of affected emissions units that must report and for agencies reviewing the reports.

To facilitate use of this format, EPA has included the format in the draft Enhanced Monitoring Reference Document (see Section III.A.) and, after receiving public comment on that document, intends to place the format on an electronic bulletin board system accessible to both owners or operators of affected emissions units and permitting authorities.

Although these proposed regulations would not require the use of electronic reporting media, the format can be used in conjunction with electronic reporting and States are encouraged to do so whenever possible. Electronic reporting will provide greater flexibility and responsiveness to the needs of different agencies and will simplify the burden of data handling for all concerned. The EPA solicits comment on whether the Agency should add to the proposed regulation a presumption of electronic submission of reports except where

otherwise directed by the permitting authority.

The EPA also solicits comments on the general approach to reporting in the proposed regulations. Specifically, EPA requests comments on how the reporting provisions should address potential overlap with other reporting requirements and whether the proposed requirements, in conjunction with the proposed recordkeeping requirements, provide adequate information to facilitate enforcement of violations of the Act by EPA, States, and citizens.

3. Confidential Information

Section 64.5(f) of the proposed regulations would provide explicitly that an owner or operator may assert a confidentiality claim for information reported under § 64.5 to the extent such information is entitled to protection under section 114(c) of the Act. A number of representatives from industries that would be affected by the proposed regulations have stated that they consider certain information, especially emissions unit operating time, to be confidential information. Section 114(c) of the Act provides explicit protection of information (other than emissions-related information) upon a satisfactory showing that reported information constitutes a trade secret. The provisions of 40 CFR part 2 provide further detail on the procedures an owner or operator must follow to make a confidentiality claim and the procedures EPA will use to act on that claim. This proposed section would simply reiterate that this statutory protection may extend to information submitted in enhanced monitoring reports.

4. Use of Reported Information

The EPA believes that § 114(a)(3) requires the Agency to establish an enhanced monitoring and compliance certification program that will be used to determine compliance and facilitate enforcement. Thus it is the intent of these proposed regulations that where EPA or a permitting authority determines that reported deviations constitute noncompliance, the owner or operator of an emissions unit may be subject to enforcement under sections 113 or 304 of the Act and any similar State enforcement authority. In accordance with the provisions of section 113 of the Act, an owner or operator of an emissions unit may also be subject to enforcement and penalties for other reasons, such as failing to report or keep records, failing to satisfy required monitor performance and operating requirements, omitting

required data, or reporting inaccurate or false data.

F. Section 64.6—Recordkeeping Requirements

Recordkeeping provisions would be included in § 64.6 of the proposed regulations. These provisions would require that all documentation relating to enhanced monitoring, including raw enhanced monitoring data and all documents supporting the enhanced monitoring reports and compliance certifications submitted pursuant to § 64.5, be available to the permitting authority for at least five years after the date that any required activity occurs. For instance, records concerning installation of a system would be kept for five years from the required installation date (or actual installation date, if later), and records supporting a compliance certification would be kept for five years from the date of the certification. The recordkeeping requirements (including the five year period) are consistent with the minimum recordkeeping provisions in 40 CFR 70.6(a)(3).

Although each major area of documentation would be noted in the proposed regulation, detailed formats and specifications would not be included. This is due in part to practical limitations involving the large variety of monitoring approaches and data requirements that would ultimately be included under part 64 as proposed, and in part to a desire to give the permitting authority the flexibility to implement these regulations with reasonable latitude.

The records must be available at the source for inspection or at a different site approved by the permitting authority. The use of a different site would likely be necessary for remote sources (such as some natural gas pipeline compressor stations) where the data may be relayed and stored at a central location. In addition, such records must be maintained so as to permit prompt submittal if requested by EPA or the permitting authority or if required pursuant to § 64.5. In general, however, EPA has not proposed that records be submitted (except as required under proposed § 64.5 if significant deviations or monitor downtime occurs); this approach would reduce the burden of the proposed regulations on both the regulated community and the regulatory agencies.

G. Section 64.7—Permit Application Requirements

The proposal would include application requirements for preconstruction and operating permits,

including the application requirements discussed in section IV.D. with respect to § 64.4(e) of the proposed regulations.

Section 64.7(c) would require that an owner or operator identify in an application for renewal of a permit any new technologically feasible monitoring methodologies that have become available since the original permit was issued. The application could include a new proposed enhanced monitoring protocol if the owner or operator considers any of the new methodologies to be a more appropriate methodology than the enhanced monitoring protocol previously approved. This provision would assure that as new monitoring technologies are developed, those technologies would be considered for application at existing sources. However, provided that the already approved enhanced monitoring protocol remains in compliance with the requirements of this part, an owner or operator would not be obligated to propose replacing the existing enhanced monitoring protocol with a new protocol.

These application requirements would be supplementary to other permit application requirements under existing permit programs and, as is the case with other provisions in proposed part 64, they would not preempt any other requirements unless they are in conflict and the part 64 requirements are more restrictive. In many cases the permitting authority will have established policies or guidelines to assist each applicant in proposing adequate monitoring. The EM Reference Document published together with the proposal would also provide assistance to the applicant. However, the proposed regulations would allow the applicant to recommend the most cost-effective approach for its particular circumstances, taking into account the policies and guidelines adopted by the permitting authority.

H. Section 64.8—Permit Requirements

Section 64.8(a) of the proposed regulations would specify the operating permit conditions needed to satisfy enhanced monitoring requirements. These conditions would restate and cross reference the applicable requirements of part 64. Under these proposed regulations, the operating permit for every emissions unit would contain all of the requirements needed to implement part 64 and these requirements would be independently enforceable permit conditions. It is not EPA's intent that § 64.8 would create new procedural obligations for the permitting authority. Rather, § 64.8 would instruct the permitting authority on how to adopt the part 64

requirements as permit conditions in a reconstruction or operating permit.

One specific provision in § 64.8 should be noted. In general, an owner or operator would be required to use data from an enhanced monitoring protocol as an enforceable basis for certifying compliance. However, as discussed above in section IV.E.1. and below in section IV.K., there may be certain emission limitations or standards in existing State implementation plans for which the underlying requirement may not allow a certification of compliance to be based on the approved enhanced monitoring. The EPA is planning to issue a SIP Call to address this issue, but there may be permits approved prior to the applicable SIP requirement being corrected. Sections 64.8(a)(3) and (4), and (b) would address this interim concern, as discussed in detail below in section IV.K. concerning the SIP Call.

I. Section 64.9—Prohibitions

Section 64.9 would clarify that any failure to satisfy a requirement of proposed part 64 would constitute a violation of the proposed regulations and of the Act, and would subject the owner or operator to enforcement under the Act. This section would also clarify that each day of a continuing violation would be treated as a separate violation.

J. 40 CFR Parts 51, 52, 60 and 61

The proposal includes several amendments to existing regulations that EPA believes are necessary to effectively implement the statutory mandates of sections 113 and 114 of the Act. Several provisions in 40 CFR parts 51, 52, 60 and 61 appear to establish exclusive methods for determining compliance with an underlying emission limitation or standard. In addition, many sources and States interpret SIP's to limit the methods for determining compliance with emission limitations and standards. The EPA believes that this language is inconsistent with the requirements of sections 110(a)(2), 113(a) and (e), and 114(a). As stated in section III.B., EPA believes that the amended Act significantly revised the process for determining compliance and establishing violations of the Act's requirements. Therefore, EPA is proposing to amend various provisions in 40 CFR parts 51, 52, 60 and 61 so that they will conform with the requirements of the amended Act and with the enhanced monitoring regulations being proposed for promulgation into part 64.

Section 114(a)(3) provides that "[t]he Administrator shall in the case of any person which is the owner or operator of a major stationary source, and may, in the case of any other person, require

enhanced monitoring and the submission of compliance certifications." The EPA believes this requires the Administrator to develop regulations requiring major stationary sources to perform enhanced monitoring and to certify compliance with applicable emission limitations and standards. By this provision, EPA believes Congress intended to accomplish two results. First, with respect to monitoring, Congress wanted sources to perform monitoring that was better than is currently being performed. In many instances, sources perform an initial test at start-up, but are not required to follow-up with monitoring or testing that is representative of continuing compliance after the initial compliance demonstration. In other instances, monitoring or testing may be required infrequently in relation to the terms of the emission limitation or standard (e.g., a once a year stack test for a source that has an hourly emission limitation). The EPA believes that Congress' call for enhancement means that sources should perform monitoring that is representative of continuous compliance with applicable emission limitations or standards.

Second, EPA believes that Congress established a link between the enhanced monitoring and compliance certification. In other words, Congress wanted sources to not only perform enhanced monitoring, but also to be able to certify compliance based on the results of that monitoring. See H.R. Rep. 490, 101st Cong. 2d Sess., pt. 1, at 394 (The "amendment clarifies and confirms that EPA has authority under section 114(a) to require enhanced monitoring and to require such monitoring in compliance certifications.").

The proposed enhanced monitoring regulations have been developed with those goals in mind. However, to accomplish those goals, EPA also needs to revise those regulations that EPA previously had promulgated and that could now be interpreted to hinder the use of enhanced monitoring as a basis for determining compliance. Therefore, EPA is proposing revisions to 40 CFR 51.165(a)(2)(ii), 51.166, 51.212, 52.12, 52.21, 60.11 and 61.12 that would clarify that enhanced monitoring data may be used for the purpose of certifying compliance. In order to ensure that underlying requirements will be interpreted consistently with the enhanced monitoring requirement, EPA has based the proposed revisions to these provisions on the language in proposed § 64.5(a). The proposed revisions would state that, in addition to any underlying compliance test methods, compliance certification may

be based on enhanced monitoring or part 70 monitoring. These proposed revisions would allow sources to certify compliance consistent with the terms of parts 64 and 70 which require sources to certify compliance based on the monitoring adopted pursuant to the permitting process.

In addition, section 113(e) of the amended Act now clarifies that for purposes of enforcement actions brought in Federal court, neither EPA nor the source is bound by the method indicated in the underlying regulation for purposes of proving whether a violation of the emission standard or limitation has occurred. In the past, courts have interpreted language in EPA's regulations as well as in SIP's as limiting the evidence that could be used in enforcement cases. In order to ensure that EPA's regulations and the SIP's will be interpreted consistent with section 113(e), EPA is proposing specific language that would address enforcement as well as compliance certification in the Federal regulatory provisions identified above. Section 113(e) provides the basis for EPA to revise its Federal regulations and to call for revisions to SIP's, as Federal law, in order to clarify what will be the basis for establishing a violation of the underlying emission limitation or standard in Federal court.

In order to implement sections 113 and 114, EPA is proposing the following revisions to existing regulations. Revisions to the preconstruction permit program requirements under 40 CFR 51.165, 51.166 and 52.21 would be included to assure that the enhanced monitoring program could be implemented through Federal and State programs for issuing permits under parts C and D of title I of the Act. Many existing preconstruction permit programs already require extensive monitoring that could be used for enhanced monitoring purposes. As stated previously, because EPA is concerned that for certain programs, the permitting authority may consider enhanced monitoring requirements to be beyond the scope of authority granted in their current programs, the proposed amendments would require changes to these existing permit programs to account for the new mandate to adopt enhanced monitoring through the preconstruction permit process.

EPA has determined to make these revisions because of the history of establishing by regulation the requirements for the new source review program. However, these revisions are duplicative of the SIP Call (described below) since it will require a revision to address all SIP provisions including

new source review. EPA believes that the language suggested for purposes of the SIP Call would adequately address new source review to the extent it is adopted into the SIP.

The second set of amendments that would be made under the proposal are to the compliance certification and enforcement provisions in 40 CFR 51.212, 52.12(c), 60.11, and 61.12. As noted earlier, EPA is also planning to issue a call for States to revise their SIP's to be consistent with the authority in section 113(e) and 114(a)(3). EPA is proposing to revise the general provisions of 40 CFR parts 60 and 61 to clarify what the bases are for certifying compliance and for establishing violations for NSPS and NESHAP sources.

It is important to note that these proposed revisions to 40 CFR parts 51, 52, 60 and 61 and SIP's are not changes which in and of themselves would create new methods for certifying compliance or establishing a violation of any emission limitation or standard. Rather these proposed revisions simply would allow EPA to fully implement the compliance certification provisions of parts 64 and 70 and to fully enforce those provisions in accordance with sections 113(e) and 114(a)(3) of the Act.

For purposes of compliance certification, the proposed revisions to 40 CFR parts 51, 52, 60 and 61, as well as the SIP Call, merely would indicate that the regulation or SIP does not establish an exclusive method for determining compliance. The revisions would allow that monitoring methods developed in accordance with part 64 or 70, and approved for the source into a federally-enforceable permit, may be used as a basis for certifying compliance with the applicable emission limits.

For purposes of enforcement, the proposed revisions would include changes to several sets of regulatory language concerning methods used for establishing whether the source is in violation of an emission limitation or standard. First, in the proposed rule, EPA would establish that data from certain testing and monitoring methods are presumptively credible evidence that a violation did or did not occur. The methods would be those that have been specifically adopted as compliance test methods for the source (or source category) in a SIP, in Federal regulations (e.g., NSPS) or through the process of developing monitoring or testing in issuing a federally-enforceable permit, including both part 70 operating permits and preconstruction permits under part C or D of title I of the Act.

Second, these proposed revisions would identify other testing and

monitoring methods that have been adopted through notice-and-comment rulemaking procedures. These methods would be considered presumptively credible methods, but there would be no automatic presumption as to whether data from these methods indicate that a source did or did not violate an emission limitation or standard. To the extent that EPA offers data from such methods or other credible evidence to the court in a case, the burden would be on EPA to show that data from such methods is credible evidence of a violation and the burden would be on the source to rebut a claim of violation on the basis of data from such methods or other credible evidence.

There are several instances in which EPA may need to rely on evidence that is something other than the monitoring or testing method specified in an operating permit or a regulation in order to establish a violation of an emission limitation or standard. The following is a simplified, hypothetical example. Source A has an operating permit that includes use of a continuous emission monitoring system (CEMS) as the enhanced monitoring method for one of its emissions units. The CEMS fails and must be repaired. During this period, EPA gathers other information concerning the temperatures at which the control system at Source A's emissions unit has been operating. Experts will testify that one critical component of proper operation of the control equipment at that unit is temperature, and that if the control equipment is operated below a specific temperature it will not achieve the control efficiency necessary for Source A to achieve compliance with the applicable emission limit. The EPA has information that shows the control equipment was operated below that temperature on several occasions. The EPA would be able to present that information and the accompanying expert testimony to the court in an enforcement action; the court would determine whether such information was credible evidence of a violation at Source A.

A second example is for a source, Source B, that has an enhanced monitoring system that Source B claims is operating correctly. In fact, Source B's monitoring system is faulty and shows compliance with the emission limitation or standard when, in fact, violations are occurring. The EPA has other information that shows violations of the applicable emission limitation or standard. The EPA would have the opportunity to present such information to the court and the court would